Usenet Newsgroup Archive: rec.radio.amateur.antenna

2004-01 - 2004-03

These Usenet messages were preserved as a plain-text archive. This PDF was generated by Digital Library of Amateur Radio & Communications from the source text file in 2026.

Date span: 2004-01-01 through 2004-03-31

Source text: rec.radio.amateur.antenna.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 5,079

Message records with no readable body available in the source text: 1

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

1. Designing A Rubber Resistor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 00:08:45 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <lpo6vvoa0fqefkbsd8lh3urtna7em10hfm@4ax.com>
Source record: 102573

Most of us have done the old comparison between a standard "decent" antenna and the rubber resistor most manufacturers use on their 2-meter HTs. I've seen anywhere from 10 to 25 dB difference even IF I use the same groundplane configuration for a "real" groundplane and the rubber duckie working over the same metal structure.

My goal is to wind up with a foreshortened antenna on the order of the size of the duck that comes with the HT, but a bit more efficient. I couldn't care less about multiple bands with a single antenna, but I would like some decent bandwidth.

I've visited Reg's wonderful site and made some quick and dirty calculations using his programs, but most of them seem to be slanted towards HF antennas over a dirty ground, and I'm not really sure what to expect using a VHF antenna over a metal ground plane.

I'd like to do some more calculations and some more configurations before I start bending and winding wire haphazardly, but there is a notable lack of information on foreshortened VHF antennas on the web and in the literature. If anybody can point me in the right direction, I'd be most appreciative.

Jim

Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

2. Re: How do aluminum pipe sizes work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 00:17:46 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <U7mdnWpjLPnV9G6iRVn-vw@ctc.net>
Source record: 102575

> Anyone know how aluminum pipe sizes work? Is there some kind of
> industry standard that manufacturers follow and you can look up (for
> finding wall thickness, telecoping lengths, etc)?
>

For building antennas you want tubing. If you get the tubing with .058 inch wall thickness then the next size up will slid in with a couple of thousands of an inch of clearance. Go to here :

http://www.texastowers.com/

and look at their tubing in the online catalog.

3. Re: Calculating Coaxial Cable Loss

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 00:22:20 UTC
From: k7itm@aol.com
Message-ID: <3200347.0312311622.6e177205@posting.google.com>
Source record: 102574

Just as Dave wrote...

And it's easy to understand. If you have 100 feet, that's just two
50-foot sections in series. Each will act just like an attenuator,
and they will be the same. To get, say, 1.8dB total, it must be a
cascade of two 0.9dB sections. Remember that dB expresses a ratio (of
output to input). Or a cascade of 18 5.555 foot sections, of 0.1dB
each, etc.

Also worth remembering: for well-made coax operating at HF, and
generally well up into VHF/UHF, the attenuation in dB of a given
length goes up as the square root of frequency, so at 450MHz, it will
be (very close to) ten times the dB it is at 4.5MHz. That's because
the loss is almost all in the resistance of the conductors, which
(usually) varies as the square root of freq., because of the skin
effect, in this freq range. (At high enough freqs, dielectric loss
kicks in, and at low enough, the skin depth is greater than the
conductor thickness.)

Cheers,
Tom

"David Robbins" <noone@nowhere.com> wrote in message
news:<GL-dnUGVV425uW6i4p2dnA@crocker.com>...
> "Michael Melland" <w9wis@charter.net> wrote in message
> news:vv68bllbrj18d0@corp.supernews.com...
> > If a cable, any cable ..... for argument sake... say Andrew LDF2-50... has
> a
> > specified loss at.... say 1000 MHz.... of 3.52 dB in 100 ft... is there a
> > way to calculate what the loss would be in different lengths ? Say for 50
> > feet ?
> >
> > The cable above is an example.... but is there a rule for calculating loss
> > for cables of any kind under 100 feet ? Would loss at 50 feet be exactly
> > 1/2 of that at 1000 feet ?
> >
>
> for a 1:1 swr the loss is a linear function of length. so the loss at 50'
> would be 1/2 that at 100' (not 1000' as you typed above!). if the swr is
> greater than 1:1 its not so straight forward.
>
> oh, just fair warning... questions like this often attract nit-picky trolls
> who will turn this thread into a never ending discussion of why swr isn't,
> and how lossy cables change the world... ignore them for your own sanity.

4. Re: Lil Wil 36 inch 11 meter antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 00:31:38 UTC
From: Bert Craig <wa2si@arrl.netNOSPAM>
Message-ID: <KTJIb.6906$Do6.3765708@news4.srv.hcvlny.cv.net>
Source record: 102576

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message
news:20031231173600.08176.00001839@mb-m16.aol.com...
> I have a htx 10 and have limited funds. I bought a lil wil and tried to
do swr
> but could not get lower than 1.7:1. I think I have cut the antenna too
short.
> Can I replace it with the same diameter stainless steel piece from a
hardware
> store and cut it to 36" I have left something out. After trying to
adjust a
> little lower in swr, my meter just kept reading >3.0. That is why I think
I
> cut it too short. I should have left it at 1.7!
>
> Thanks
>
> 73
> Greg
> ki4bbl@arrl.net

Hi Greg,

I too run a HTX-10 in my car. I use a Wilson 5000 mag-mount on the roof of the car. A tad beefier, but the principle is the same. Replacement whips can be had for about nine bucks. Hope that helps.

73 es HNY de WA2SI

5. Re: Feeding a doublet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 00:32:44 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FF36AAC.6AF0D29A@cwis.net>
Source record: 102577

Adrian,
Since I haven't tried an antenna like that I can't honestly
say what it might do. I'd certainly have to give it a try,
though! I would guess that it will be a 'quiet' antenna. How
much of that 'quiet' is due to it being a lousy antenna versus
too low, is another one of those 'guesses's. But I like loops
and would certainly see what happened if I had that much fence!
As for the antenna being 'skylined', and objectionable
neighbors,
put up the poles with a bird house on top of each. Tell the
neighbors
the wire is an intercom line for the birds and to mind their own
@#$%
business! Or maybe cameras wired so you can watch them... They
can
still mind their own @#$% business...
'Doc

6. Re: How do aluminum pipe sizes work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 00:50:54 UTC
From: Kingfish Stevens <kingfish@kingfish.net>
Message-ID: <2kr6vvgjljrdgltkf8up4qghlsv5b0b4sr@4ax.com>
Source record: 102578

On 31 Dec 2003 13:28:17 -0800, mmelendez@celeridad.net (Q) wrote:

>Anyone know how aluminum pipe sizes work? Is there some kind of
>industry standard that manufacturers follow and you can look up (for
>finding wall thickness, telecoping lengths, etc)?
>
>I've seen a couple of tables with specifications, however those seem
>to always jump from 1/2" to 3/4" to 1"... at my local hardware store I
>can get the 1/8"'s sizes in between (3/8, 5/8, 7/8, etc) which has me
>confused. Are those 1/8" based sizes standard, or some kind of non
>standard product?

These two pages should help you understand the sizes.
73
Kingfish

http://www.rondexter.com/professional/rigging/pipe_tube_conduit.htm

http://www.rondexter.com/professional/rigging/telescoping_pipe_and_tube.htm

7. Re: Calculating Coaxial Cable Loss

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 00:55:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bsvr5b$c9v$1@hercules.btinternet.com>
Source record: 102579

All depends on the starting point data which may not be easy to obtain.

For EXACT classical calculation of loss along coaxial, solid polyethylene insulated lines for given conductor dimensions, for any terminating impedance, any SWR, from power frequencies to UHF, download program COAXPAIR from website below. This program may be used to check accuracy of simplified formalae available in handbooks.

For power and voltage ratings and temperature rise above ambient, download program COAXRATE. Information is much better than is generally provided by manufacturers.

Approximately, at HF,

Attenuation = 4.34*R/Zo decibels per metre.

Where R is the HF resistance per metre of the inner plus outer conductors and Zo is line impedance.

R = Sqrt(F.MHz) * (1/d + 1/D) / 12 ohms per metre.

Where d = inner conductor diameter, mm

and D = outer conductor inside diameter, mm

--
....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

8. Re: Calculating Coaxial Cable Loss

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 01:07:25 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <2ks6vvst36do1l0oki91l3hgf148sif8qr@4ax.com>
Source record: 102580

Now THERE'S an interesting rule of thumb I hadn't picked up on in the last 40 years. Thanks, Tom.

Jim

k7itm@aol.com (Tom Bruhns)
shared these priceless pearls of wisdom:

->Also worth remembering: for well-made coax operating at HF, and
->generally well up into VHF/UHF, the attenuation in dB of a given
->length goes up as the square root of frequency, so at 450MHz, it will
->be (very close to) ten times the dB it is at 4.5MHz. That's because
->the loss is almost all in the resistance of the conductors, which
->(usually) varies as the square root of freq., because of the skin
->effect, in this freq range. (At high enough freqs, dielectric loss
->kicks in, and at low enough, the skin depth is greater than the
->conductor thickness.)
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

9. Re: Max Signal gain from my antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 01:16:22 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <vv6t5em17hjhbc@corp.supernews.com>
Source record: 102581

Dear John:
Under the conditions you have described, where you do not wish to attract undesired attention, I would try for 20 to 30 feet of height. I would also try to place the wire antenna so as to be away from likely sources of noise. (Signal-to-noise ratio is the important factor.)
Trees, if any, could be a factor in occluding the antenna. I would also select the color of the wire used for minimum visibility. The diameter of the wire need be no more than what is required to keep the antenna supported.
For what I think that you wish to do, I suggest that you use a balanced antenna and not just a piece of wire with one end attached to your receiver. In other words: use goals that include (1) a height for much of the antenna of more than 20 feet; (2) an orientation that minimizes visibility and that tries to keep distant from dwellings and power poles; and (3) the use of a center fed, balanced, doublet type of antenna that is fed at its center by a transmission line (for your purposes, it makes little difference what kind of transmission line - coax with a connector that is compatible with your receiver is the most likely choice).
You might wish to make a sketch, based on measurements, of your back yard. A centrally located tree would be an ideal place for the center of the doublet. Do a bit of planning. If you use a doublet and keep some distance from obvious noise sources, I doubt that the difference in performance between the worst and best location in your back yard will be significant.
Good luck. 73 Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"John Quinn" <john.quinn@comcast.net> wrote in message news:osu5vv0setukrfajqtuts73tv8vf3is669@4ax.com...
> What would be a recommended height in an urban area? I'm in a
> residential area, there aren't such things as large buildings, but
> stuff like a two story house next door to my single floor home. I
> don't want to get it too high and attract the attention of the City
> Orindance Police.
>
> On Tue, 30 Dec 2003 19:41:04 -0500, "J. McLaughlin"
> <JCM@Power-Net.Net> wrote:
>
> >Dear John:
> > A wire antenna for short-wave (HF) that is ten feet above ground is

> >likely not to have strong directional preferences. In other words,
the
> >orientation of the wire antenna is unlikely to make any significant
> >difference in your reception. However, if in an urban environment,
some
> >orientations are likely to pick up more locally generated noise than
> >other orientations.
> > Experimentation is called for. More height is desirable. 73
Mac
> >N8TT
>

10. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 01:21:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bsvsmk$e4v$1@sparta.btinternet.com>
Source record: 102582

Incoming radiation angles can be obtained by geometric calculation.
Pythagorus and all that, taking earth curvature, height of ionospheric
layers, number of hops, etc, etc, into account.

Then point your receiving beam into it, if it is adjustable in the vertical
plane. Very non-critical. Antenna apperture angles in the vertical plane
are extremely broad.

The stuff often comes in from more than one angle. Interference between the
different paths causes fading and distortion. An antenna will collect from
all vertical angles regardles of elevation.

Reg

==========

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0312311233.16937c69@posting.google.com...
> Looking for a site or information on incoming
> radiation angles specifically for 160 metres.
>
> 1 How is it measured ?
> 1a Can it discriminate between vertical and horizontal
> or what ever polarisation
>
> 2 What is the angles per percentage of contacts
>
> 3 Are they all horizontally polarised when subject to skip?
> for distances over say 1000 miles distance
>
> One well known DXer (Tom) stated on this
> newsgroup that a horizontal dipole at 1/2 wave
> length was inferior to his other antennas, but
> no specifics given!
>
> Appreciate any pointers on the above.
> Happy New Year
> Art

11. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 01:24:56 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <IFKIb.713749$Fm2.619440@attbi_s04>
Source record: 102583

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:23846-3FF360C6-238@storefull-2316.public.lawson.webtv.net...
> Art, K9MZ wrote:
> "---radiation angles specifically for 160 meters.
> 1. How is it measured?"
>
> In degrees above the horizon. It`s geometrical. The effective height of
> the reflecting layer above the earth has been observed for a long time
> and can be predicted with some accuracy, based upon location, time,
> solar radiation, etc.
>
Where can I see these predictions for the present time?

> The angle of incidence is equal to the angle of reflection to a
> reference normal to the reflecting plane. So, low angles serve for long
> distances between stations, and high angles for short distances that are
> too distant to be reached by the groundwave.

Understood

>
> Capt. Paul H. Lee, USNR, K6TS has a chart of degrees above the horizon
> versus distance to the first reflection zone (a single hop) on page 11
> of "Vertical Antenna Handbook", a "CQ" publication. As the height of the
> latyer is variable, this is an approximation based on probabilities.

I will pull that one out.

>
> A 5/8-wave vertical gives optimum low-angle radiation between 3 and 27
> degrees. The latter angle gets you out to about 500 miles. Lower angles
> get you out to about 2000 miles on one hop.

O.K.
>
> Vertical antennas work with vertically polarized waves. Once the wave is
> reflected by the ionosphere, polarization of the reflection is more or
> less random.

Hmm, so a vertical tho low angle would miss out on horizontal polarisations
which leaves a lot of unknown with respect to best antenna for Top band
>
> "2. What is the angles per percentage of contacts?"
>
> Depends on where your station is in respect to the majority of stations
> you want to contact.

Over 1000 miles
>
> "3. Are they all horizontally polarized when subject to skip?"
>
> No. The ionosphere does not care what the wave polarization is. It will
> reflect whatever strikes it at various polarizations. It won`t maintain
> polarizations! You can receive via the ionosphere almost equally well,
> on average, with any polarization regardless of what was transmitted.

Well I thought that kmost transmitions changed to horizontal after
reflection!

> Noise reception is likely worse using a vertical receiving antenna.

Well I am confused about that
My present rotatable dipole at a 'low" height matches a beverage at 15
degrees but unfortunately the gain continues to a max at 90 degrees where as
the beverage
whereas the beverage nulls out the higher angles which ius why I presume it
was chosen as a listening antenna.

>
> "Tom stated on this newsgroup that a horizontal dipole at 1/2-wavelength
> was inferior to his other antennas---."
>
> Can`t argue with Tom`s observation about his antennas, but it does not
> correspond with most observations of horizontal antenna performance when
> you have a resonant dipole at 1/2-wave above the earth. Look at Fig 12-D
> on page 3-11 of the 19th edition of the ARRL Antenna Book. Maximum
> radiation is at 30-degrees above the horizon. From Capt. Lee`s diagram,
> that would get you stations as close as 500 miles, and beyond 1000 miles
> due to the range of strong elevation angles in the pattern.
>
> I don`t know what Ton`s problems are but suspect that he ignores some of
> the ground effects. He has expressed dissatisfaction with his verticals
> too.
>
> Vertivcals in particular are sensitive to good earth under and around
> the antenna.
>
> Horizontal polarization isn`t bad for HF. Most of the world`s HF
> commercial stations use horizontal antennas for skywave propagation.

Well I have put my dipole in the vertical position also which negates use of
radials but I have not noticed any profound differences as yet after a few
days !

This new band to me is raising a lot of questions
for me that I haven't thought of before so I am at a new horizon and without
the spirit level as the bubble has burst.
Cheers
Art

band>
> Best regards, Richard Harrison, KB5WZI
>

12. Cal Amp MMDS 130004

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 04:38:34 UTC
From: madmun <madmun@kamali.net>
Message-ID: <Xns9462F08726AF4madmunkamalinet@140.99.99.130>
Source record: 102584

Does anyone have the specs on this antenna?

thanks much

13. Re: horzloopant/Belton ham?????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 06:19:54 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <e_OIb.8294$R_4.4875@nwrddc03.gnilink.net>
Source record: 102585

<lorentzsonci@lycos.com> wrote in message
news:q626vvsavo315a3du512v28iq8uptcl13e@4ax.com...
> I am looking for a ham operator, that I bought a two meter horz
> groundplane bigwheel antenna from several years ago, at Belton
> Texas. He built both two/440mhz antennas. I 'think' he lived in Dallas
> and just came down to Belton for the hamfest. Would like to get back in
> touch,if possible, to purchase another two meter, like the one I have.
> thanks in advance. 73
> "remove 'z' from email address

Believe you are talking about a ham from Oklahoma who is blatantly copying antennas from M Square, Olde Antena Lab and Par Electronics. Go to The Olde Antenna Lab in Colorado W6OAL- and support the guy that put the intelligence and energy into the big wheel design.

Dale W4OP

14. Re: Feeding a doublet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 09:07:57 UTC
From: Adrian <adrian@ambquality.co.uk>
Message-ID: <cdo7vvojpe7tlpqprsd3jil6t8me8vtf72@4ax.com>
Source record: 102586

HI Doc

>
>
>Adrian,
> Since I haven't tried an antenna like that I can't honestly
>say what it might do. I'd certainly have to give it a try,
>though! I would guess that it will be a 'quiet' antenna. How
>much of that 'quiet' is due to it being a lousy antenna versus
>too low, is another one of those 'guesses's. But I like loops
>and would certainly see what happened if I had that much fence!

Yes - I'll give it a try.....
There's actually a metal fence 'stock fence' all round the perimiter
of the land - but the bottom end of it is securely embedded in the
earth - so I think it may be asking rather a lot for that to radiate
<g>. But a thin insulated wire along the fence top, that's a
possibility......

> As for the antenna being 'skylined', and objectionable
>neighbors,
>put up the poles with a bird house on top of each. Tell the
>neighbors
>the wire is an intercom line for the birds and to mind their own
>@#$%
>business! Or maybe cameras wired so you can watch them... They
>can
>still mind their own @#$% business...

We do like to try to keep on good terms with our neighbours (up to a
point). One or two of them are a bit 'funny' - we had to get rid of a
cockerel because he was waking people up in the morning..... so we try
not to wind anybody up more than absolutely necessary. We're also in a
designated Area of Outstanding Natural Beauty (!) - so that tends to
raise peoples' 'sensitivity' to things like aerial farms. Never mind -
there are compensations <g>

Now all I need is a BIG reel of insulated wire.......

Thanks again
Adrian
Suffolk UK

15. Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 11:52:21 UTC
From: Paul Jordan <pauljordan@gci.net>
Message-ID: <vv82f07mphre4b@corp.supernews.com>
Source record: 102587

I know this will bring a lot of flak but, I'll explain why I want to do this.

I'm looking for a way to open up my 706 to 11 meters (a.k.a. Citizens Band) because the local snow plowers in the area use that band and I work for them. I've got my 706's mounted in my trucks and I'd rather not mount a CB radio and another antenna in the trucks.

Drop me an e-mail if you can and let me know if you've ever done this mod.

If my scanner would cover this band, that would be fine but, my mobile scanners don't cover CB..

Any help is greatly appreciated.

Paul Jordan
kl0an
Anchorage, AK

16. Re: 160m J-pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 12:07:04 UTC
From: gsm@mendelson.com
Message-ID: <slrnbv8345.kv4.gsm@cable.mendelson.com>
Source record: 102588

In article <eSsIb.16586$7D3.14307@fed1read02>, Dale and Nancy Chidester wrote:
> Ken,
>
> Think helical. Several years ago I made a 40 meter J-pole using twin lead.
> Wound it around 10 ft. of 1" PVC pipe. Worked well for field day, signal
> strengths comparable to those from a full sized dipole... but with the
> advantage of being omni-directional. Get some 4" or 6" PVC sewer pipe and do
> the math for length. Should be interesting. Hmm, think I'll go visit Radio
> Shack soon!

Wow. Would you mind posting construction details?

Tia, Geoff.

--
Geoffrey S. Mendelson gsm@mendelson.com 972-54-608-069
Icq/AIM Uin: 2661079 MSN IM: geoffrey_mendelson@hotmail.com (Not for email)

17. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 13:44:28 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <pf88vvg054cpkfjcg834ker3o0d3ffh81h@4ax.com>
Source record: 102589

On Thu, 1 Jan 2004 02:52:21 -0900, "Paul Jordan" <pauljordan@gci.net>
wrote:

>I know this will bring a lot of flak but, I'll explain why I want to do
>this.
>
>I'm looking for a way to open up my 706 to 11 meters (a.k.a. Citizens Band)
>because the local snow plowers in the area use that band and I work for
>them. I've got my 706's mounted in my trucks and I'd rather not mount a CB
>radio and another antenna in the trucks.
>
>Drop me an e-mail if you can and let me know if you've ever done this mod.
>
>If my scanner would cover this band, that would be fine but, my mobile
>scanners don't cover CB..

I was under the impression the 706 has a general coverage HF receiver,
which should cover 11 meters.

Otherwise, for transmit, the 60 meter mod for the 706 may also cover
other frequenies. You'll, of course, want to crank your 706 down to CB
power levels. Still, it won't be type-accepted or whatever for 11
meters, so it probably won't be legal. Maybe look at getting a couple
of ratshack cb HTs?

Bob
k5qwg

>
>Any help is greatly appreciated.
>
>Paul Jordan
>kl0an
>Anchorage, AK
>

18. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 13:57:04 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0401010557.5f2754cf@posting.google.com>
Source record: 102590

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:<bsvsmk$e4v$1@sparta.btinternet.com>...
> Incoming radiation angles can be obtained by geometric calculation.
> Pythagorus and all that, taking earth curvature, height of ionospheric
> layers, number of hops, etc, etc, into account.
>
>
> Then point your receiving beam into it, if it is adjustable in the vertical
> plane. Very non-critical. Antenna apperture angles in the vertical plane
> are extremely broad.
>
>
> The stuff often comes in from more than one angle. Interference between the
> different paths causes fading and distortion. An antenna will collect from
> all vertical angles regardles of elevation.
> ----
> Reg
>
> ====================

Interesting thing happened with the antenna last night.
Had the antenna in the vertical position close to ground (it is a
truncated co linear dipole) And was prevented from joining the local
group because of multiple QSOs on the same frequency!

Art

19. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 14:38:18 UTC
From: desmoface@aol.com
Message-ID: <20040101093818.29591.00001501@mb-m02.aol.com>
Source record: 102591

>I know this will bring a lot of flak but, I'll explain why I want to do
>this.
>
>I'm looking for a way to open up my 706 to 11 meters (a.k.a. Citizens Band)

Won't ever be legal, but if you do a search on the internet you'll find out how to do it (if it's doable which I'm sure it is)..most of these radios are mars capable which will open up the transmit to general coverage..usually with the snip of a diode..

Good luck es 73's

Kb8viv/steve

20. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 14:55:04 UTC
From: Kingfish Stevens <kingfish@kingfish.net>
Message-ID: <i5d8vvk9bb8apqm0quat75f3svms20pikj@4ax.com>
Source record: 102592

do a Google search

On Thu, 1 Jan 2004 02:52:21 -0900, "Paul Jordan" <pauljordan@gci.net>
wrote:

>I know this will bring a lot of flak but, I'll explain why I want to do
>this.
>
>I'm looking for a way to open up my 706 to 11 meters (a.k.a. Citizens Band)
>because the local snow plowers in the area use that band and I work for
>them. I've got my 706's mounted in my trucks and I'd rather not mount a CB
>radio and another antenna in the trucks.
>
>Drop me an e-mail if you can and let me know if you've ever done this mod.
>
>If my scanner would cover this band, that would be fine but, my mobile
>scanners don't cover CB..
>
>Any help is greatly appreciated.
>
>Paul Jordan
>kl0an
>Anchorage, AK
>

21. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 14:57:37 UTC
From: richardharrison@webtv.net
Message-ID: <24790-3FF43561-409@storefull-2311.public.lawson.webtv.net>
Source record: 102593

AArt, KB9MZ wrote:
"Where can I see these predictions for the present time?"

Inquire of the National Institute of Science and Technology for propagation forecasts. (Your tax dollars at work) The National Bureau of Standards used to broadcast a limited amount of propagation forecasts on WWV. Haven`t listened in a long time, so don`t know what`s on WWV now. NBS also made available extensive propagation forecast information for the world, by mail, on a subscriotion basis.

Best regards, Richard Harrison, KB5WZI

22. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 15:17:46 UTC
From: richardharrison@webtv.net
Message-ID: <23640-3FF43A1A-138@storefull-2318.public.lawson.webtv.net>
Source record: 102594

Art, KB9MZ wrote:
"And was prevented from joining the local group because of nultiple QSOs on the same frequency."

Single-element vertical antennas are deficient in directivity at any azimuth. They have a single null off their tips, that is toward the zenith.

At HF, groundwave disappears with increasing frequency. Thus, short range communication is hindered.

Best regards, Richard Harrison, KB5WZI

23. Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 16:23:57 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <xQXIb.29370$Pg1.5281@newsread1.news.pas.earthlink.net>
Source record: 102595
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

http://www.cdc.gov/elcosh/docs/d0500/d000568/d000568.html

24. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 17:04:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3FF45321.7040203@ieee.ONEDOT.org>
Source record: 102596

Paul Jordan wrote:
> I'm looking for a way to open up my 706 ...

http://www.qrz.com/download/mods-i-k/index.html
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

25. Re: Keeping moisture out of 9913 type coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 18:14:54 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <CJudnaNEkaE5_mmi4p2dnA@comcast.com>
Source record: 102597
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.space

On the antenna end, go up with the coax. Then any water that gets in will come out the same end, instead of in the shack. I friend of mine did have puddle under his rig from water flowing out of 9913. No, he did not take a lightning hit. I don't use 9913 outdoors. Also, I think the flexible 9913 is not hollow.

Tam/WB2TT
"Dave Woolf" <NOSPAMdwoolf@worldnet.att.net> wrote in message news:3FF239DC.8000603@worldnet.att.net...
>
> Just wonder what other's might do to keep moisture
> from getting into the semi-hollow 9913 type low
> loss coax. It would seem inevitiable with changes
> in temperature and pressure that moist air would
> eventually work its way into the coax and then
> condense.
>
> I had a fellow ham that took the precaution of
> pressurizing this type of coax to maintain
> positive pressure and keep out outside air.
> Seemed like a lot of effort but maybe it is necessary.
>
> I have tried to seal the ends of the coax with silicone
> sealant but I am not really sure that this has been
> effective in the long term.
>
> What do others do? What has been your experience?
>
> Dave - K8RSP
> (to reply to me directly remove NOSPAM from above
> address)
>

26. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 18:25:00 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <vv8pgj66nufs3c@corp.supernews.com>
Source record: 102598

Paul;

Just apply the mod to open the radio. Do not transmit, it will but
don't. Nothing special is needed to do the mod except steady hands and a
fine soldering iron and pincers.

Dave nagel WD9BDZ

Paul Jordan wrote:

> I know this will bring a lot of flak but, I'll explain why I want to do
> this.
>
> I'm looking for a way to open up my 706 to 11 meters (a.k.a. Citizens Band)
> because the local snow plowers in the area use that band and I work for
> them. I've got my 706's mounted in my trucks and I'd rather not mount a CB
> radio and another antenna in the trucks.
>
> Drop me an e-mail if you can and let me know if you've ever done this mod.
>
> If my scanner would cover this band, that would be fine but, my mobile
> scanners don't cover CB..
>
> Any help is greatly appreciated.
>
> Paul Jordan
> kl0an
> Anchorage, AK
>
>

27. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 18:32:51 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <9jp8vvomeisl6panapp6t9ofd7bpamarih@4ax.com>
Source record: 102599
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Thu, 01 Jan 2004 16:23:57 GMT, "Kï¿½HB" <groupk0hb@earthlink.net>
wrote:

> http://www.cdc.gov/elcosh/docs/d0500/d000568/d000568.html
>
Big wall rock climbers and vertical cavers need to deal with the same,
and some of their gear and techniques may be helpful.

For example, when suspended on a rope, in harness, you could use a
loop of cord with a Prusik hitch, attach it to the main rope, and give
yourself a loop to stand on and get some more leg circulation.

There are other techniques used by belayers, as they may be in place
for extended times, and not able to let go of the rope their partner
is on.

As always, this is dangerous stuff, and should only be done with
proper instruction and equipment. Gravity is not always your friend.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

28. Re: 3-phase SWR/Power meter.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 18:34:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6sp8vvom110te1n11d7otq5l8j9g1ab17u@4ax.com>
Source record: 102600

On Wed, 31 Dec 2003 23:55:42 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>(Readers will understand the problems involved with explaining
>revolutionary ideas when obliged to use misunderstood, flogged-to-death
>terminology.)
>---
>Reg, G4FGQ
>

Yes, Reg,

Your travails are many and litter the way. Can we expect appeals to
Roy's mythical Lurker, or Cecil's supportive editor to lighten your
path? ;-)

73's and may the wind be always at your back,
Richard Clark, KB7QHC

29. WTB Antenna anthology

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 18:34:19 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <LKZIb.716327$Tr4.1797126@attbi_s03>
Source record: 102601

Looking for a copy for a friend. Authored by DeMaw, ~1975.

W4ZCB

30. Re: How do aluminum pipe sizes work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 18:43:06 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <_SZIb.33306$xX.104988@attbi_s02>
Source record: 102602

Correcting misinformation:

Pipe is NOT specified by inside diameter.
It is specified by a "trade size" that is is
associated with a specific outside diameter.
The inside diameter varies, depending on
which "schedule" it is (eg, 40 , 80, etc) and
what material it is made of. Generally,
for sch 40, the inside diameter is slightly
larger than the trade size, while for sch 80,
the inside diameter is slighly smaller than the
trade size. All "1 1/2 inch" pipe has an
outside diameter of 1.900 inches, regardless
of schedule/wall thickness/material. The schedule
numbers are arbitrary. For example, schedules
125 and 200 are thin wall sprinkler pipes, much
lighter than schedule 40.

The reference you give has incorrect information.
For example, it gives the outside diameter of 1 1/2 inch
trade size pipe incorrectly as 1 7/8 inches (1.875).

(BTW, flexible tubing is the only material specified by
inside diameter, AFAIK).

Rick N6RK

"Kingfish Stevens" <kingfish@kingfish.net> wrote in message
news:2kr6vvgjljrdgltkf8up4qghlsv5b0b4sr@4ax.com...
> On 31 Dec 2003 13:28:17 -0800, mmelendez@celeridad.net (Q) wrote:
>
> >Anyone know how aluminum pipe sizes work? Is there some kind of
> >industry standard that manufacturers follow and you can look up (for
> >finding wall thickness, telecoping lengths, etc)?
> >
> >I've seen a couple of tables with specifications, however those seem
> >to always jump from 1/2" to 3/4" to 1"... at my local hardware store I
> >can get the 1/8"'s sizes in between (3/8, 5/8, 7/8, etc) which has me
> >confused. Are those 1/8" based sizes standard, or some kind of non
> >standard product?
>
> These two pages should help you understand the sizes.
> 73
> Kingfish
>
> http://www.rondexter.com/professional/rigging/pipe_tube_conduit.htm

>
>
http://www.rondexter.com/professional/rigging/telescoping_pipe_and_tube.htm
>

31. Re: How do aluminum pipe sizes work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 18:49:11 UTC
From: Bumper <bumper@nospam.com>
Message-ID: <3FF46BA6.7358EA7D@nospam.com>
Source record: 102603

http://www.mcmaster.com

Their printed catalogs are worth their weight in gold if you can get one,
better go online and learn about tubing and pipe and just about anything
else
you need. No minimum orders, fast shipping from all over the usa.

Q wrote:

> Anyone know how aluminum pipe sizes work? Is there some kind of
> industry standard that manufacturers follow and you can look up (for
> finding wall thickness, telecoping lengths, etc)?
>
> I've seen a couple of tables with specifications, however those seem
> to always jump from 1/2" to 3/4" to 1"... at my local hardware store I
> can get the 1/8"'s sizes in between (3/8, 5/8, 7/8, etc) which has me
> confused. Are those 1/8" based sizes standard, or some kind of non
> standard product?

32. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 18:49:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o7q8vvcssjn06es0v8ojdr5pdn4jic4tm5@4ax.com>
Source record: 102604

On 1 Jan 2004 05:57:04 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>Interesting thing happened with the antenna last night.
>Had the antenna in the vertical position close to ground (it is a
>truncated co linear dipole) And was prevented from joining the local
> group because of multiple QSOs on the same frequency!
>
>Art

Hi Art,

I'v noted a lot of HF advice to your MF question. Most of it of the
quality of looking under the street lamp for lost keys because that is
where the light is.

No doubt you were "prevented." They couldn't hear you! How is it
your heard them? You used the same polarization they were
transmitting in. Now, these are two significant clues to your
problem(s).

Elsewhere you've offered:
>Well I have put my dipole in the vertical position also which negates use of
>radials but I have not noticed any profound differences as yet after a few
>days !
Another clue (really the same as the two above) which reveals the
problem of so quickly embracing the presumed proof of this "negation."
You negated nothing but opportunity. Your claim is identical to those
CFA's "FCC tested" in Georgia that are 20dB down from their reference.
Your vertical dipole misses only the phasing circuit to qualify for
the Nomenclature gain.

73's
Richard Clark, KB7QHC

33. Re: Keeping moisture out of 9913 type coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 19:01:35 UTC
From: wb4una@aol.com
Message-ID: <20040101140135.14429.00001927@mb-m14.aol.com>
Source record: 102605

the only way that I have heard of sealing 9913 is to install a gas to form pressure inside the coax. This way water will not get in either by leaking nto or condensation which is the main way it gets in...

Randy

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

34. Re: Lil Wil 36 inch 11 meter antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 19:30:11 UTC
From: Howard Eisenhauer <howarde@REMOVECAPShfx.eastlink.ca>
Message-ID: <t1s8vvsc06nig69bvrceclbkirn3vo23s5@4ax.com>
Source record: 102606

On 31 Dec 2003 22:36:00 GMT, nightowls627@aol.comnojunk (Greg Doughty)
wrote:

>I have a htx 10 and have limited funds. I bought a lil wil and tried to do swr
>but could not get lower than 1.7:1. I think I have cut the antenna too short.
>Can I replace it with the same diameter stainless steel piece from a hardware
>store and cut it to 36" I have left something out. After trying to adjust a
>little lower in swr, my meter just kept reading >3.0. That is why I think I
>cut it too short. I should have left it at 1.7!
>
>Thanks
>
>73
>Greg
>ki4bbl@arrl.net

Greg, I've got one of these on my Durango for my CB (Let the Flames
Begin!) & I had a misearable time getting a decent VSWR (~1.2:1)
with it,. If I left a door open during the check it threw the thing
way off. They seem to be very sensitive to placement, coax routing,
relative humidity, the phase of the moon & last Thursday's Dow Jones
level.

I finally gave up & just learned to live with whatever it feels like
giving me on any given day, 2:1 sucks but it's still good for what I
need.

Howard.

35. Re: Feeding a doublet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 19:56:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <plu8vvotqlp7umonjonb9m558c5v5shd8p@4ax.com>
Source record: 102607

On Thu, 01 Jan 2004 09:07:57 +0000, Adrian <adrian@ambquality.co.uk>
wrote:

>There's actually a metal fence 'stock fence' all round the perimiter
>of the land - but the bottom end of it is securely embedded in the
>earth - so I think it may be asking rather a lot for that to radiate
><g>. But a thin insulated wire along the fence top, that's a
>possibility......

Hi Adrian,

Sounds like a combination circular Beverage antenna and fence de-icer.

As for the Beverage antenna, do it by parts (one quarter at a time) to
see if things:
a) work;
b) improve;
c) stay the same.

73's
Richard Clark, KB7QHC

36. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 20:02:21 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <eas8vv0mtrfk2vvr8frk40d3rt6d2tgodd@4ax.com>
Source record: 102609
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Thu, 01 Jan 2004 16:23:57 GMT, "Kï¿½HB" <groupk0hb@earthlink.net>
wrote:

>
> http://www.cdc.gov/elcosh/docs/d0500/d000568/d000568.html
>
>
Experience tells me there is something missing from their
explanations. For those who do much climbing the hazards, or at least
some of them associated with staying in the same position are known.

At my age I still do a fair amount of tower climbing. A typical tower
climb is 3 to 4 hours with no few running up to 6 or 7. The longest
have been on the order of 8 to 9 hours. The longest in the last two
years was between 6 and 7 hours.

I always use a "tag line". which they refer to as an arresting
harness. Actually it's a double line with two clips and they are only
a bit over 3 feet long. So, if I slip I won't fall far, but it's gonna
hurt! It does not get in the way of work. It can be clipped to the
side, or in front but attaches to the D rings on the belt. A simple
"tag line" makes climbing safer and easier. Even a simple one
properly attached does not have to get in the way.

I do not believe in the harnesses I see advertized and I do not
believe in using Nylon harness or safety belts. Although we used them
where I used to work, we considered them disposable with a very short
life.
"As I recall" we replaced them every 8 months. Remember, Nylon does
not stand up well in direct sunlight.

I avoid the harnesses as I particularly do not want my legs hanging
or something that will encourage a situation where I can work with
them hanging. Sure they are comfortable, but I stand! If the work is
too strenuous to stand it should be done in some other manner. If the
climber can not keep his or her weight on their feet for the duration
of the climb they should not be climbing in those situations.

I wear a Kline, free floating leather belt which is 5 inches wide. The
belt itself is of double neoprene impregnated nylon monofilament. I
have it inspected regularly. The pole strap is of the same material
and easily extends to go around a tower 2 foot on a side, yet works
just fine on a small TV tower. I knew I'd be using the belt a lot so
I purchased the same type as used by the line and tower crews. I do
see that they are migrating tot he harnesses probably due as much to

OSHA as any other reason. Who knows, ,maybe after this study they will be moving away from them, but they are active and rarely remain in one position for long, so I don't see this as a hazard they would be exposed to very often.

On one job a few years ago, they came up short on some parts. So I slid into the tower, got comfortable and waited about an hour and a half. The temperature was well over 90F. I was in a vertical position, it was hot, and I did very little moving. I wore a wide brimmed hat, long sleeve shirt, and work pants. (and leather gloves) There was no problem nor was there any indication of one. OTOH I sure was getting bored. However it was a position that required I move my legs at regular intervals to stay comfortable.

"I think", although I disagree with their wording, they are referring to a "motionless" upright position. I also believe that although the bent knees at "parade rest" *might* help, it's the movement of the leg muscles that forces the blood out, not just using the muscles to support the weight. Those legs have to *move* to keep the blood from pooling.

One thing I did not see them mention, or I missed it, is the greater likely hood of developing blood clots in the legs when they are motionless or just hanging for long periods. Hanging is far worse than standing on rigid, straight legs.

I would reiterate that any one who feels they need to use a harness of the type in which you can sit to make life easier on a tower should not be climbing at least for nothing more than a very short job, but not the ones that take over half an hour. OTOH there is nothing wrong with wearing one for convenience if handled properly. Tower climbing requires the climber to be in good physical shape, not just for the climbing, but for safety and health reasons.

If the climber is over weight, out of shape, not feeling good, or feels they need additional support to be able to do the job, they should stay on the ground. It is not something that should be taken lightly.

One of the greatest hazards has been the unknowing staying "up there" too long and then being too tired to climb down. On rare occasion some one will climb up a ways and suddenly discover that "This is not for me!" Going up a tower and then helping someone climb down one hand or foot at a time is a rather unique and tiring experience. (and it takes a very long time) At least he didn't go up to 200 feet before looking down. <:-))

Roger Halstead (K8RI & ARRL life member)
(N833R, S/# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

37. Re: 3-phase SWR/Power meter.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 20:18:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff48103$1_8@corp.newsgroups.com>
Source record: 102608

Richard Clark wrote:
> Your travails are many and litter the way. Can we expect appeals to
> Roy's mythical Lurker, or Cecil's supportive editor to lighten your
> path? ;-)

He was only supportive until he realized the subject was extremely
technical. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

38. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 20:29:54 UTC
From: Jerry Bransford <jerrypb@mecox.net>
Message-ID: <7r%Ib.36541$gN.20656@fed1read05>
Source record: 102610
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Roger, (hello, haven't talked with you in a while) I did a bit of not-so-tall tower climbing as part of my job while I was in the USAF communications biz and I quickly discovered "This is not for me!" Heck, I even got scared once or twice on the so-called parachute ride at Knott's Berry Farm hehheh.

Jerry
--
Jerry Bransford
To email, remove 'me' from my email address
KC6TAY, PP-ASEL
See the Geezer Jeep at
http://members.cox.net/jerrypb/

"Roger Halstead" <mynews@rogerhalstead.com> wrote in message news:eas8vv0mtrfk2vvr8frk40d3rt6d2tgodd@4ax.com...
> On Thu, 01 Jan 2004 16:23:57 GMT, "K&#65533;HB" <groupk0hb@earthlink.net>
> wrote:
>
> >
> > > http://www.cdc.gov/elcosh/docs/d0500/d000568/d000568.html
> >
> >
> Experience tells me there is something missing from their
> explanations. For those who do much climbing the hazards, or at least
> some of them associated with staying in the same position are known.
>
> At my age I still do a fair amount of tower climbing. A typical tower
> climb is 3 to 4 hours with no few running up to 6 or 7. The longest
> have been on the order of 8 to 9 hours. The longest in the last two
> years was between 6 and 7 hours.
>
> I always use a "tag line". which they refer to as an arresting
> harness. Actually it's a double line with two clips and they are only
> a bit over 3 feet long. So, if I slip I won't fall far, but it's gonna
> hurt! It does not get in the way of work. It can be clipped to the
> side, or in front but attaches to the D rings on the belt. A simple
> "tag line" makes climbing safer and easier. Even a simple one
> properly attached does not have to get in the way.
>
> I do not believe in the harnesses I see advertized and I do not
> believe in using Nylon harness or safety belts. Although we used them
> where I used to work, we considered them disposable with a very short

> life.
> "As I recall" we replaced them every 8 months. Remember, Nylon does
> not stand up well in direct sunlight.
>
> I avoid the harnesses as I particularly do not want my legs hanging
> or something that will encourage a situation where I can work with
> them hanging. Sure they are comfortable, but I stand! If the work is
> too strenuous to stand it should be done in some other manner. If the
> climber can not keep his or her weight on their feet for the duration
> of the climb they should not be climbing in those situations.
>
> I wear a Kline, free floating leather belt which is 5 inches wide. The
> belt itself is of double neoprene impregnated nylon monofilament. I
> have it inspected regularly. The pole strap is of the same material
> and easily extends to go around a tower 2 foot on a side, yet works
> just fine on a small TV tower. I knew I'd be using the belt a lot so
> I purchased the same type as used by the line and tower crews. I do
> see that they are migrating tot he harnesses probably due as much to
> OSHA as any other reason. Who knows, ,maybe after this study they
> will be moving away from them, but they are active and rarely remain
> in one position for long, so I don't see this as a hazard they would
> be exposed to very often.
>
> On one job a few years ago, they came up short on some parts. So I
> slid into the tower, got comfortable and waited about an hour and a
> half. The temperature was well over 90F. I was in a vertical
> position, it was hot, and I did very little moving. I wore a wide
> brimmed hat, long sleeve shirt, and work pants. (and leather gloves)
> There was no problem nor was there any indication of one. OTOH I sure
> was getting bored. However it was a position that required I move my
> legs at regular intervals to stay comfortable.
>
> "I think", although I disagree with their wording, they are referring
> to a "motionless" upright position. I also believe that although the
> bent knees at "parade rest" *might* help, it's the movement of the leg
> muscles that forces the blood out, not just using the muscles to
> support the weight. Those legs have to *move* to keep the blood from
> pooling.
>
> One thing I did not see them mention, or I missed it, is the greater
> likely hood of developing blood clots in the legs when they are
> motionless or just hanging for long periods. Hanging is far worse than
> standing on rigid, straight legs.
>
> I would reiterate that any one who feels they need to use a harness
> of the type in which you can sit to make life easier on a tower should
> not be climbing at least for nothing more than a very short job, but
> not the ones that take over half an hour. OTOH there is nothing wrong
> with wearing one for convenience if handled properly. Tower climbing

> requires the climber to be in good physical shape, not just for the
> climbing, but for safety and health reasons.
>
> If the climber is over weight, out of shape, not feeling good, or
> feels they need additional support to be able to do the job, they
> should stay on the ground. It is not something that should be taken
> lightly.
>
> One of the greatest hazards has been the unknowing staying "up there"
> too long and then being too tired to climb down. On rare occasion some
> one will climb up a ways and suddenly discover that "This is not for
> me!" Going up a tower and then helping someone climb down one hand
> or foot at a time is a rather unique and tiring experience. (and it
> takes a very long time) At least he didn't go up to 200 feet before
> looking down. <:-))
>
> Roger Halstead (K8RI & ARRL life member)
> (N833R, S# CD-2 Worlds oldest Debonair)
> www.rogerhalstead.com

39. Re: How do aluminum pipe sizes work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 21:00:56 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <7819vvs9vfq50qfr5mmhotoprpb84nbeb4@4ax.com>
Source record: 102611

On Thu, 01 Jan 2004 18:43:06 GMT, "Rick Karlquist N6RK"
<richard@karlquist.removethis.com> wrote:

>Correcting misinformation:
>
>Pipe is NOT specified by inside diameter.
>It is specified by a "trade size" that is is
>associated with a specific outside diameter.
>The inside diameter varies, depending on

Yes, this is highly nominal. Trade size is a good way to put that. A
fair amount of variability is possible. At one point, decades ago,
these sizes related to the ID more or less, but enhancements in
materials allowed for thinner walls in the piping, while still using
legacy fittings sized to the outer dimension.

Tubing in various materials, is most often specified by O.D, and then
wall thickness. This includes various metals, aluminum, copper, etc,
rigid plastics like PVC or CPVC, etc, and many of the flexible tubings
out there. Tolerances tend to be much tighter than on pipe. There are
separate series of some tubings in metric.

Various suppliers of tubing and fittings include useful reference info
in their catalogs.

Considering where this was posted, I assume that the OP wants nesting
tubing for making an antenna. If so, see:
<http://www.texastowers.com/aluminum.htm>

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

40. Re: Keeping moisture out of 9913 type coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 21:16:56 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <mpgpZJCI5I9$EA7q@ifwtech.co.uk>
Source record: 102616
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.space

Uncle Peter wrote:
>
>"Ron" <ron@home.local> wrote in message
>news:pan.2003.12.31.15.23.01.781234@home.local...
>> On Wed, 31 Dec 2003 02:51:26 +0000, Dave Woolf wrote:
>>
>>
>> > Just wonder what other's might do to keep moisture from getting into the
>> > semi-hollow 9913 type low loss coax. It would seem inevitiable with
>> > changes in temperature and pressure that moist air would eventually work
>> > its way into the coax and then condense.
>> >
>>
>
>I'd think it makes sense to seal the top, but let the connectors at the
>bottom
>breath, that would alleviate moisture ladden air from being drawn in at
>the top. Especially during rain storms!

That will certainly help.

> Another idea would be having the
>top sealed, and the bottom allowed to breathe through a plastic jar of
>desiccant.

Unfortunately the desiccant doesn't last, because it absorbs moisture
from the air in the shack. However, you can easily regenerate silica gel
by baking it in a moderate oven for a few hours.

Even better is "active" pressurization - keeping a positive pressure
inside the line at all times. A very simple, low-cost method is to use a
small fish-tank aerating pump in the shack, with the far end of the line
sealed (exactly as Pete recommends) so there is *no* through flow. The
positive pressure is very effective at keeping moisture out.

In the shack, the air is connected by soldering a small brass tube
through the side of a normal coax plug. PL259/SO239 connectors will
leak, so you have to tape over them; most types of N connectors are
already well sealed.

Positive pressure is even more useful if you have a sealed box at the
far end of the line, containing preamplifiers, relays etc. In the long
term it keeps outdoor electronics in far better condition than the
alternative method using a vent hole in the box, which exposes
everything inside the box to atmospheric moisture.

To make sure the air pressure gets through into the box, you may need to drill small holes through the insulators of some in-line connectors. Only small holes are needed because there's very little flow. For a deluxe job, pressurize the system with dry air, by connecting the pump through a tube of silica gel desiccant (regenerated every few months as above).

I can't remember who first suggested this method, but I'd like to thank him! It worked very well indeed for me, for more than 10 years.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

41. Re: 300 ohm TV ribbon no longer available in city of 1,000,000

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 21:54:22 UTC
From: Dan Jacobson <jidanni@jidanni.org>
Message-ID: <871xqjmj1t.fsf@jidanni.org>
Source record: 102615

B> What's your question to the group?

I'm saying even though we see http://www.morsex.com/dipole/index.htm ripping up coax and putting flatwire in, as recently as 1998, we regular folks should perish such thought, as one shouldn't even expect to be able to buy flatwire anymore, without great effort.

So the marketplace is giving a message that flatwire is such a losing proposition, just like vacuum tubes, that it needn't even be available anymore.

42. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 22:10:08 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt25si$10cd$1@news3.infoave.net>
Source record: 102612

www.mods.dk will reveal all the magical things to accomplish your trek into
the world of illegal activity...

"Paul Jordan" <pauljordan@gci.net> wrote in message
news:vv82f07mphre4b@corp.supernews.com...
> I know this will bring a lot of flak but, I'll explain why I want to do
> this.
>
> I'm looking for a way to open up my 706 to 11 meters (a.k.a. Citizens
Band)
> because the local snow plowers in the area use that band and I work for
> them. I've got my 706's mounted in my trucks and I'd rather not mount a
CB
> radio and another antenna in the trucks.
>
> Drop me an e-mail if you can and let me know if you've ever done this mod.
>
> If my scanner would cover this band, that would be fine but, my mobile
> scanners don't cover CB..
>
> Any help is greatly appreciated.
>
> Paul Jordan
> kl0an
> Anchorage, AK
>
>

43. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 23:43:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff4b10b$1_2@corp.newsgroups.com>
Source record: 102613
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Roger Halstead wrote:
> I always use a "tag line". which they refer to as an arresting
> harness. Actually it's a double line with two clips and they are only
> a bit over 3 feet long. So, if I slip I won't fall far, but it's gonna
> hurt!

I have my Purple Martin birdhouse mounted on my tower at a height
of about 20 ft. Last year, I wished I had not been wearing my safety
harness when I was surprised by a six foot long rat snake during a
nest check. The harness forced me to face the snake when I would have
much rather jumped. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

44. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-01 23:47:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff4b224$1_2@corp.newsgroups.com>
Source record: 102614

w4jle wrote:
> www.mods.dk will reveal all the magical things to accomplish your trek into
> the world of illegal activity...

It doesn't seem quite fair. An ordinary citizen can run CB super power
with little fear of prosecution. OTOH, a ham is likely to lose his
ham license for perfectly legal operation except for type acceptance.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

45. Re: Keeping moisture out of 9913 type coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 01:08:46 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <d0h9vvkc8uo381iv8phclec3fftre8unsv@4ax.com>
Source record: 102617
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.space

On Thu, 1 Jan 2004 13:14:54 -0500, "Tarmo Tammaru"
<t-tammaru@home.com> wrote:

>On the antenna end, go up with the coax. Then any water that gets in will
>come out the same end, instead of in the shack. I friend of mine did have
>puddle under his rig from water flowing out of 9913. No, he did not take a
>lightning hit. I don't use 9913 outdoors. Also, I think the flexible 9913 is
>not hollow.

I forgot "drip loops". All of mine come off the antenna with the
exceptions of the wire dipoles, and curve upward. Then they are taped
to the mast. I would have thought it would have kept the water out,
but in the case of the lightening strike I had water coming out of the
rig. course it could have blown out the coax farther down. It did
just that with the 7/8" Heliax. (bout 30 feet down from the top).

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
>Tam/WB2TT
>"Dave Woolf" <NOSPAMdwoolf@worldnet.att.net> wrote in message
>news:3FF239DC.8000603@worldnet.att.net...
>>
>> Just wonder what other's might do to keep moisture
>> from getting into the semi-hollow 9913 type low
>> loss coax. It would seem inevitiable with changes
>> in temperature and pressure that moist air would
>> eventually work its way into the coax and then
>> condense.
>>
>> I had a fellow ham that took the precaution of
>> pressurizing this type of coax to maintain
>> positive pressure and keep out outside air.
>> Seemed like a lot of effort but maybe it is necessary.
>>
>> I have tried to seal the ends of the coax with silicone
>> sealant but I am not really sure that this has been
>> effective in the long term.
>>
>> What do others do? What has been your experience?
>>
>> Dave - K8RSP

>> (to reply to me directly remove NOSPAM from above
>> address)
>>
>

46. Re: 300 ohm TV ribbon no longer available in city of 1,000,000

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 01:21:48 UTC
From: jgboyles@aol.com
Message-ID: <20040101202148.19091.00001903@mb-m13.aol.com>
Source record: 102618

Dan wrote:
>What's your question to the group?
>http://www.morsex.com/dipole/index.htm
>ripping up coax and putting flatwire in, as >recently as 1998, we
>regular folks should perish such thought, >as one shouldn't even expect
>to be able to buy flatwire anymore, >without great effort.

Hi Dan, 300 ohm line is available from Radio Shack, Home Depot, Lowes ect.
last time I checked. May not be in your part of the world however :-(
>flatwire is such a losing
>proposition, just like vacuum tubes, that >it needn't even be available
anymore.

Well, if it gets to the point that only a few hundred Hams use it for their
dipole antennas, the market will dry up. I think there are still enough OTA
home TV installations to keep 300 ohm line for at least a few more years.
Even if the 300 ohm stuff goes away, it is quite easy to homebrew. Also 450
ohm line, which is readily available, is slightly preferable from a performance
standpoint.
Concerning the link you provided: That was a good tutuorial on basic dipole
construction. After you have done it a couple times, you are an expert, it's
not that difficult. I do question the use of a 1:4 balun before the tuner.
The balun will seldom see it's design impedance with an antenna of this type.
A 1:1 current balun would be a better choice IMO. This has been discussed
before on this group, do a search.

73 Gary N4AST

47. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 01:47:01 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt2iih$16bl$1@news3.infoave.net>
Source record: 102419

Particularly since the 5WPM code and pre-published multiple choice exams.
Takes very little more effort to become an Extra than to become a CBer.

Dick Bash led us all straight to radio hell...

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:3ff4b224$1_2@corp.newsgroups.com...
> w4jle wrote:
> > www.mods.dk will reveal all the magical things to accomplish your trek
into
> > the world of illegal activity...
>
> It doesn't seem quite fair. An ordinary citizen can run CB super power
> with little fear of prosecution. OTOH, a ham is likely to lose his
> ham license for perfectly legal operation except for type acceptance.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

48. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 03:08:33 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FF4E0B1.E5277A2@cwis.net>
Source record: 102420

Gee, Cecil, you're right. Lets just pick the rules
we want to obey and forget the rest. That ought to
be okay...
'Doc

49. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 03:11:21 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FF4E159.D59C08B5@cwis.net>
Source record: 102421

What does code speed, and Dick Bash have to do with
it? Why not 'male pattern baldness' and dandruf while
you're at it?
'Doc

50. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 03:19:58 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt2o0o$163k$1@news3.infoave.net>
Source record: 102422

Approaching 50 years as a ham qualifies me to be a certified curmudgeon.
Ergo, it follows that I may purpose any theory I choose for the state of
today's world.

Dick Bash and No/Slow code are further up on my agenda than male pattern
baldness, your mileage may vary...

"'Doc" <w5lz@cwis.net> wrote in message news:3FF4E159.D59C08B5@cwis.net...
>
>
> What does code speed, and Dick Bash have to do with
> it? Why not 'male pattern baldness' and dandruf while
> you're at it?
> 'Doc

51. Need an antenna (I hope)?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 04:12:46 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <C96Jb.569$Pn5.58@bignews5.bellsouth.net>
Source record: 102423

Would you please visit my website for your new mobile
HF antenna!! You will find reviews on Eham for this
antenna and its builder. I build quality screwdriver style
antennas and single band antennas on as requested basis.
For example, if you only work 75 meters (there are some that only do 75 and
40), then I will build that. If you
want an all-band conventional mobile (using taps), I can
build that (similar to the now-defunct GLA Texas Bugcatcher.

Visit www.qls.net/k4kwh

73

Jerry
K4KWH

52. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 04:13:19 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <vv9rvt2trm5666@corp.supernews.com>
Source record: 102424

Doc;

If you remember Dick started the practice of publishing the FCC questions and answers quite a few years ago. This, among other reasons, lead to the FCC adopting the current testing procedure. While publishing of test questions did not start with the FCC, the FAA has long published the actual pilot test questions, I do not see any read loss with the procedure. If a applicant can memorize 600 to 900 questions and the correct answers more power to them.

David Nagel WD9BDZ

'Doc wrote:
>
> What does code speed, and Dick Bash have to do with
> it? Why not 'male pattern baldness' and dandruf while
> you're at it?
> 'Doc

53. Re: Radiio Shack FM BC band convert...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 05:24:31 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <m40avvcohiasemblhj7rcaak9kammcc53g@4ax.com>
Source record: 102425

On Mon, 29 Dec 2003 00:36:44 -0800, "D&B Rude" <brewman@merr.com>
wrotF:

>Happy New Year to All!
>I am looking for an article that appeared some years ago concerning the
>cutting and phasing of Radio Shack FM broadcast band beams. They make a six
>element beam that when cut down (two of them) and phased, make an excellent
>light weight, narrow beamwidth, good gain, inexpensive beam for 2 meters. I
>have a pair polarized vertically, and they work great.
>
>Problem is, someone gave me this great set up and he can not remember where
>he got the info for cutting to length, and is also looking for the info. I
>do know that it was not in QST. can anyone help? Please use my email adr,
>brewman@merr.com as I don't always have time to hit the NX groups.
>
>Also looking for a schematic for a friend, for a Gonset 2M AM Communicator
>IV. Thanks
>Dave
>KA9SRU
>
http://www.arrl.org/members-only/tis/info/pdf/9907034.pdf

54. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 06:25:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff50f72_7@corp.newsgroups.com>
Source record: 102426

'Doc wrote:
> Gee, Cecil, you're right. Lets just pick the rules
> we want to obey and forget the rest. That ought to
> be okay...

In Louisiana, it is illegal for a husband and wife to engage
in oral sex in the privacy of their bedroom. Do you think all
rules are good rules?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

55. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 07:10:14 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <2o5avvca693c5u69j067b42vndllh676un@4ax.com>
Source record: 102427
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Thu, 01 Jan 2004 17:43:00 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Roger Halstead wrote:
>> I always use a "tag line". which they refer to as an arresting
>> harness. Actually it's a double line with two clips and they are only
>> a bit over 3 feet long. So, if I slip I won't fall far, but it's gonna
>> hurt!
>
>I have my Purple Martin birdhouse mounted on my tower at a height
>of about 20 ft. Last year, I wished I had not been wearing my safety
>harness when I was surprised by a six foot long rat snake during a
>nest check. The harness forced me to face the snake when I would have
>much rather jumped. :-)

Everything is a compromise<:-)) Although I'd say finding the snake
would require a lot higher odds than seat belts Vs being thrown out of
a car. <:-))

Bout all we have in Michigan are Rattle snakes (Missaguga - usually a
little feller) and assorted non poisonous ones. Naturally you know
which kind got me in the upper arm when trimming the hedge around the
house.<sigh> I was black and blue from darn near elbow to shoulder
although at least it didn't make me sick. Then again it was only
about 14 inches long.

Like you I was looking at a bird's nest, which in this case was in the
hedge. I reached in to look at the birds (4 little ones in the nest)
when I felt a burning on my upper arm. I thought I'd picked up a
splinter and the pine sap was burning until I saw the two little holes
in my arm.

The drawback to tag lines and safety belts at 100 feet is the likely
hood of coming across a Yellow jackets nest inside the mast or boom.
They are nasty tempered little suckers.

I was just looking to see if I had any photos of the nests I've run
across in the back yard up on my web site, but didn't find any. I
have a couple to put up that show one nest about a foot across.

The last two years I have destroyed about 30 to 40 nests a year on our
lot which is only 200 feet on a side.

Roger Halstead (K8RI & ARRL life member)
(N833R, S/N CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

56. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 07:19:48 UTC
From: Howard <#mensch90249@yahoo.com>
Message-ID: <vo6avvkchhhoql6op320io97dh4jjhnni3@4ax.com>
Source record: 102428

On Fri, 02 Jan 2004 00:25:49 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>
>In Louisiana, it is illegal for a husband and wife to engage
>in oral sex in the privacy of their bedroom. Do you think all
>rules are good rules?
Does that mean they must engge in that act in public?

57. Re: 3.894.5

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 07:20:09 UTC
From: Sarge <sarge43@ev1.net>
Message-ID: <vva6tfhjeti792@corp.supernews.com>
Source record: 102429
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.hf,alt.ham-radio.ssb,alt.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

"BIG AL" <imafuckingwindbag@bigalk4oka.net> wrote in message
news:vmpl8a7gu2319d@corp.supernews.com...
> ALL OF YOU PEOPLE NEED TO STAY OFF OF MY FREQUENCY. 3.894.5 IS BIG AL'S
> FREQUENCY. UNLESS YOU ARE INVITED DO NOT COME TO MY FREQUENCY. ESPECIALLY
> W8RBK ELVIE WITH HIS GIRLY VOICE. HO HO
>
>

Hahahahahaha! PLONK!

58. Re: 300 ohm TV ribbon no longer available in city of 1,000,000

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 07:26:25 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <DKSdnb_g8NqGgGiiRVn-ug@comcast.com>
Source record: 102430

I can get it at the local Radio Shack. I'm sure the Wireman would have it.

"Dan Jacobson" <jidanni@jidanni.org> wrote in message
news:871xqjmj1t.fsf@jidanni.org...
> B> What's your question to the group?
>
> I'm saying even though we see http://www.morsex.com/dipole/index.htm
> ripping up coax and putting flatwire in, as recently as 1998, we
> regular folks should perish such thought, as one shouldn't even expect
> to be able to buy flatwire anymore, without great effort.
>
> So the marketplace is giving a message that flatwire is such a losing
> proposition, just like vacuum tubes, that it needn't even be available
> anymore.

59. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 10:35:27 UTC
From: Roger Gt <Xenot@pacbell.net>
Message-ID: <PPbJb.4475$U%2.4084@newssvr27.news.prodigy.com>
Source record: 102431
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Roger Halstead" <mynews@rogerhalstead.com> wrote in message
news:2o5avvca693c5u69j067b42vndllh676un@4ax.com...
> On Thu, 01 Jan 2004 17:43:00 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
> >Roger Halstead wrote:
> >> I always use a "tag line". which they refer to as an arresting harness.
<snip>
> >
> >I have my Purple Martin birdhouse mounted on my tower at a height
> >of about 20 ft. Last year, I wished I had not been wearing my safety
> >harness when I was surprised by a six foot long rat snake during a
> >nest check. The harness forced me to face the snake when I would have
> >much rather jumped. :-)
>
> Everything is a compromise<:-)) Although I'd say finding the snake
> would require a lot higher odds than seat belts Vs being thrown out of
> a car. <:-))
>
> Bout all we have in Michigan are Rattle snakes
<snip>
> The drawback to tag lines and safety belts at 100 feet is the likely
> hood of coming across a Yellow jackets nest inside the mast or boom.
> They are nasty tempered little suckers.
<snip>

At least I have never encountered snakes or wasps on those rare occasions I needed to go aloft to fix or retrieve a lose halyard. It's only 35 feet above deck but at sea in a light chop it swings about two to three feet with no one up there, add my weight it swings about five to seven feet. So I tie myself a safety harness from 3 strands of 5/8 inch Yacht Braid and secure a double line for hauling to a rigging ring. It's safer than a belt, and while you can't fall out you can get a bad case of motion sickness. I use flying jam cleats to serve as climbers so up and down are slow. There are no mast steps nor anything to grab except at the spreaders. So I try to avoid going up if at all possible. I sail mostly in the winter, and the water is cold!
My antennas are all hinged, so I never climb them!
I think you need to make some accommodation when you pass 65.

Roger Gt

60. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 12:27:29 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FF563B1.8C59A6D1@cwis.net>
Source record: 102432

Cecil,
Any excuse will do when you're looking for one. Is
it okay to steal as long as it's under a certain amount?
'Doc

61. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 12:29:57 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FF56445.51E34847@cwis.net>
Source record: 102433

Hmm.. You missed the point.
'Doc

62. Re: 300 ohm TV ribbon no longer available in city of 1,000,000

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 13:02:08 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <ctqavvk6klkh8k7dpial323vb3pmnrams0@4ax.com>
Source record: 102434

On Thu, 1 Jan 2004 23:26:25 -0800, "CW" <clinton.magers@comcast.net>
wrote:

>I can get it at the local Radio Shack. I'm sure the Wireman would have it.

The wireman has 4 or 5 kinds of it :-)

Bob
k5qwg

>
>"Dan Jacobson" <jidanni@jidanni.org> wrote in message
>news:871xqjmj1t.fsf@jidanni.org...
>> B> What's your question to the group?
>>
>> I'm saying even though we see http://www.morsex.com/dipole/index.htm
>> ripping up coax and putting flatwire in, as recently as 1998, we
>> regular folks should perish such thought, as one shouldn't even expect
>> to be able to buy flatwire anymore, without great effort.
>>
>> So the marketplace is giving a message that flatwire is such a losing
>> proposition, just like vacuum tubes, that it needn't even be available
>> anymore.
>

63. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 15:26:00 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <b4gJb.194557$8y1.626485@attbi_s52>
Source record: 102435

Your 706 should simply tune the CB in receive mode without ANY
modifications.

I have 27185 KHz [Channel 19] programmed into mine [706 MKIIg] and
monitor the interstate traffic as I drive along.

NO MODS NEEDED!!

Paul Jordan wrote:

SNIP
>
> I'm looking for a way to open up my 706 to 11 meters (a.k.a. Citizens Band)
> because the local snow plowers in the area use that band and I work for
> them. I've got my 706's mounted in my trucks and I'd rather not mount a CB
> radio and another antenna in the trucks.
>

SNIP

64. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 16:06:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff597a1_7@corp.newsgroups.com>
Source record: 102436

Howard wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>In Louisiana, it is illegal for a husband and wife to engage
>>in oral sex in the privacy of their bedroom. Do you think all
>>rules are good rules?
>
> Does that mean they must engage in that act in public?

Heh, heh, guess I should have said, *even* in the privacy of
their bedroom.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

65. Re: 3.894.5

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 16:16:47 UTC
From: desmoface@aol.com
Message-ID: <20040102111647.14243.00002400@mb-m28.aol.com>
Source record: 102437

>ALL OF YOU PEOPLE NEED TO STAY OFF OF MY FREQUENCY. 3.894.5 IS BIG AL'S
>> FREQUENCY. UNLESS YOU ARE INVITED DO NOT COME TO MY FREQUENCY. ESPECIALLY
>> W8RBK ELVIE WITH HIS GIRLY VOICE. HO HO

No problem, we'll hang out on 3985 instead.

66. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 16:35:27 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff59e56$1_7@corp.newsgroups.com>
Source record: 102438

'Doc wrote:

> Cecil,
> Any excuse will do when you're looking for one. Is
> it okay to steal as long as it's under a certain amount?

Violation of an individual's property rights obviously does harm.
Using an IC-706 at 3 watts AM on a CB frequency does no harm (except
maybe to the FCC's ego).

I break the law every time I drive my pickup to town. There is a law,
circa 1900, still on the books here that requires motorized vehicles
to notify the sheriff before driving to town. Now that you know,
are you going to call the sheriff the next time you drive through
Madisonville, TX?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

67. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 16:37:39 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff59ed9$1_7@corp.newsgroups.com>
Source record: 102439

Dave Shrader wrote:
> I have 27185 KHz [Channel 19] programmed into mine [706 MKIIg] and
> monitor the interstate traffic as I drive along.
>
> NO MODS NEEDED!!

I had to modify my tolerance of vulgar language. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

68. Re: TV reception challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 17:40:11 UTC
From: Ken Finney <kenneth.c.finney@boeing.com>
Message-ID: <HqvIEv.CML@news.boeing.com>
Source record: 102440

"ComputerDoctor" <davekimble@austarnet.com.au> wrote in message
news:bsra65$20s$1@austar-news.austar.net.au...
> I live in a small steep valley in a very hilly area (Innisfail,
Queensland,
> Australia) with a nearby ridge just preventing 'line-of-sight' to the TV
> broadcast tower (Mt. Bellenden Ker, picture:
> http://www.gu.edu.au/ins/collections/webb/html/16-17.html). To make
> matters worse, there is a wall of trees in the way, and the electricity
> powerlines run both line-of-site (to the house) and sideways on (along the
> street).
>
> Amazingly, I can get 2 VHF and 3 UHF channels on rabbit ears, but the
> channel with the cricket on (604-610 MHz) is so snowy I can't really see
the
> ball, which is very frustrating. The only thing I have going for me (I
> think) is that the back yard is so steep that I can see over the house
from
> 30 metres away.
>
> Is it worthwhile trying to run some twin cable up the hill to a dipole
> strung between 2 trees?
> Would it be: 75-300 ohm balun + any length of ribbon + 232 mm dipole?
> Is there a simple way to fine tune the arrangement at the TV end once its
> up?
>
> Or can I use the garden fence mesh (see
> http://home.austarnet.com.au/davekimble/gardenfence.jpg) by tapping into
it
> at 2 well-chosen points? It seems a pity to waste all that wire.
>
> I am a novice (you guessed) so please talk slowly.
>

You might find this site interesting:

http://www.oldtvguides.com/DXPhotos/

69. Re: 3.894.5

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 18:25:09 UTC
From: gmz79@aol.comnospam
Message-ID: <20040102132509.14392.00001998@mb-m14.aol.com>
Source record: 102441

>ALL OF YOU PEOPLE NEED TO STAY OFF OF MY FREQUENCY. 3.894.5 IS BIG AL'S
>> FREQUENCY. UNLESS YOU ARE INVITED DO NOT COME TO MY FREQUENCY. ESPECIALLY
>> W8RBK ELVIE WITH HIS GIRLY VOICE. HO HO

Isn't that the National amp tune-up freq. ?
Greg Z
to thine own sound be true

70. Re: 3.894.5

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 18:30:48 UTC
From: Mike <mlawson1@twcny.rr.com>
Message-ID: <sNiJb.40441$q55.25728@twister.nyroc.rr.com>
Source record: 102442
Cross-posted to: alt.ham-radio.dxing,alt.ham-radio.hf,alt.ham-radio.ssb,alt.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Idiot

"Sarge" <sarge43@ev1.net> wrote in message
news:vva6tfhjeti792@corp.supernews.com...
>
> "BIG AL" <imafuckingwindbag@bigalk4oka.net> wrote in message
> news:vmpl8a7gu2319d@corp.supernews.com...
> > ALL OF YOU PEOPLE NEED TO STAY OFF OF MY FREQUENCY. 3.894.5 IS BIG AL'S
> > FREQUENCY. UNLESS YOU ARE INVITED DO NOT COME TO MY FREQUENCY.
ESPECIALLY
> > W8RBK ELVIE WITH HIS GIRLY VOICE. HO HO
> >
> >
>
> Hahahahahaha! PLONK!
>
>

71. Re: 300 ohm TV ribbon no longer available in city of 1,000,000

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 18:54:35 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <Nf6dnYPbtIL5I2ii4p2dnA@comcast.com>
Source record: 102443

I thought they would.

"Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
news:ctqavvk6klkh8k7dpial323vb3pmnrams0@4ax.com...
>> The wireman has 4 or 5 kinds of it :-)
>

72. Re: Do you recognize yourself ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 19:02:54 UTC
From: MD <ve3tmt@rac.ca>
Message-ID: <GfjJb.14426$Vl6.3214112@news20.bellglobal.com>
Source record: 102444

St&#65533;phane,Have a little extra time on your hands?

73. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 20:30:49 UTC
From: Bill <bb@syix.com>
Message-ID: <3FF5D4F9.5050300@syix.com>
Source record: 102445

Roger Gt wrote:
> "Roger Halstead" <mynews@rogerhalstead.com> wrote in message
> news:2o5avvca693c5u69j067b42vndllh676un@4ax.com...
>
>>On Thu, 01 Jan 2004 17:43:00 -0600, Cecil Moore
>><Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>
>>
>>>Roger Halstead wrote:
>>>
>>>>I always use a "tag line". which they refer to as an arresting harness.
>
> <snip>
>
>>>I have my Purple Martin birdhouse mounted on my tower at a height
>>>of about 20 ft. Last year, I wished I had not been wearing my safety
>>>harness when I was surprised by a six foot long rat snake during a
>>>nest check. The harness forced me to face the snake when I would have
>>>much rather jumped. :-)
>>
>>Everything is a compromise<:-)) Although I'd say finding the snake
>>would require a lot higher odds than seat belts Vs being thrown out of
>>a car. <:-))
>>
>>Bout all we have in Michigan are Rattle snakes
>
> <snip>
>
>>The drawback to tag lines and safety belts at 100 feet is the likely
>>hood of coming across a Yellow jackets nest inside the mast or boom.
>>They are nasty tempered little suckers.
>
> <snip>
>
> At least I have never encountered snakes or wasps on those rare occasions I
> needed to go aloft to fix or retrieve a lose halyard. It's only 35 feet
> above deck but at sea in a light chop it swings about two to three feet with
> no one up there, add my weight it swings about five to seven feet. So I tie
> myself a safety harness from 3 strands of 5/8 inch Yacht Braid and secure a
> double line for hauling to a rigging ring. It's safer than a belt, and
> while you can't fall out you can get a bad case of motion sickness. I use
> flying jam cleats to serve as climbers so up and down are slow. There are
> no mast steps nor anything to grab except at the spreaders. So I try to
> avoid going up if at all possible. I sail mostly in the winter, and the

> water is cold!
> My antennas are all hinged, so I never climb them!
> I think you need to make some accommodation when you pass 65.
>
> Roger Gt
>
>
>
>
I have one to add to that, one time I was at the top of a mast about 35 feet or so fixing a VHF antenna for a customer of mine. I was a marine radio tech at the time. Just when I got to the top while the boat was in the docks at Sausalito, Ca. a huge tanker went by and put out a big bow wake. I was hooked in but wish I hadn't been. All the sailboats started rocking back and forth about ten degrees from that wake. I had to hang on while other masts crossed in front of me as all the boats did a little dance with me the unwilling rider. I was in no danger of falling but nearly got smacked with someone elses' mast(s). That was the last time I volunteered for mast top antenna duty.
Bill Baka.

74. Re: Lil Wil 36 inch 11 meter antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 21:26:41 UTC
From: nightowls627@aol.comnojunk
Message-ID: <20040102162641.09540.00002014@mb-m17.aol.com>
Source record: 102446

Thanks for the replies. I actually went out and bought a replacement whip. Actually, I found out that I needed to cut A LOT off the whip. I got it tuned on 28.700 to .8:1 My whip is only 30 inches long now so I can mount it on the roof and not on the trunk. Does the roof act as a ground plane because when I put it up on the roof, the swr dropped. Anyhow, it works like a champ; today I talked to Texas on 15 watts.

73
Greg
ki4bbl@arrl.net

75. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 23:28:52 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401021528.11641178@posting.google.com>
Source record: 102447

richardharrison@webtv.net (Richard Harrison) wrote in message
>
> "Tom stated on this newsgroup that a horizontal dipole at 1/2-wavelength
> was inferior to his other antennas---."
>
> Can`t argue with Tom`s observation about his antennas, but it does not
> correspond with most observations of horizontal antenna performance when
> you have a resonant dipole at 1/2-wave above the earth. Look at Fig 12-D
> on page 3-11 of the 19th edition of the ARRL Antenna Book. Maximum
> radiation is at 30-degrees above the horizon. From Capt. Lee`s diagram,
> that would get you stations as close as 500 miles, and beyond 1000 miles
> due to the range of strong elevation angles in the pattern.

I think what Tom is referring to is transmitting. It's quite normal
for a good vertical to beat a dipole on the lower bands regardless of
theory. Even if the dipole is at 1/2 wave up. Heck, I saw this as high
as 40m. My dipole on that band never beat my vertical at night on
longer paths. Tom uses separate antennas for receiving. IE: beverages,
phased short verticals. His transmit verticals are tall towers. Late
at night, my 40m mobile vertical beats my home dipole that is at 40 ft
to any path over 800 miles. My full size 40m elevated ground plane
would thoughly trounce the dipole big time by 2-4 S units depending on
the length of the path. For DX transmitting on the lower bands,
vertical polarization is the best way to go. I'm thoughly convinced of
that by many tests over time. Some mine, some other people like Tom.
MK

76. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-02 23:33:33 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401021533.762aac0c@posting.google.com>
Source record: 102448

Richard Clark <kb7qhc@comcast.net> wrote in message
>
> No doubt you were "prevented." They couldn't hear you!

I would tend to believe this account. Small vertical antennas next to
the ground with no radials, will be just a tad better than a dummy
load on that band. MK

77. Re: Need an antenna (I hope)?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 00:42:07 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <acoJb.838$vO5.183@bignews6.bellsouth.net>
Source record: 102449

"Richard Magdy" <rsm@magpage.com> wrote in message
news:94mbvvc920qpsp32lnnnvh6dcn180pned0@4ax.com...
> On Thu, 1 Jan 2004 23:12:46 -0500, "Jerry Oxendine"
> <joxendi@bellsouth.net> wrote:
>
> >Would you please visit my website for your new mobile
> >HF antenna!! You will find reviews on Eham for this
> >antenna and its builder. I build quality screwdriver style
> >antennas and single band antennas on as requested basis.
> >For example, if you only work 75 meters (there are some that only do 75
and
> >40), then I will build that. If you
> >want an all-band conventional mobile (using taps), I can
> >build that (similar to the now-defunct GLA Texas Bugcatcher.
>
> When did the GLA Texas Bugcatcher go out of production? Has something
> happened to Henry?
>
> Rich
> >
> >Visit www.qls.net/k4kwh
> >
> >73
> >
> >Jerry
> >K4KWH

Yessir,

AFAIK, Henry is alive and well but no longer making his
antenna. I talked with Van Iderson last March at Charlotte, and it seems
the gent that actually fabricated the antennas did pass on. Henry got
interested in other
things (computers, etc), tired of traveling and called it quits. Now, if
he/someone else has taken up the GLA
Bugcatcher in the meantime, I am not aware of it. I do
know this: If you are looking for a fantastic 1 or 2 band,
you simply can't beat a large, center-loaded inductor for
a bang-up signal. Betcha you already knew that! LOL!

73

Jerry
K4KWH
> >

>

78. Re: Need an antenna (I hope)?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 00:56:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff613c4_3@corp.newsgroups.com>
Source record: 102450

Jerry Oxendine wrote:
> If you are looking for a fantastic 1 or 2 band,
> you simply can't beat a large, center-loaded inductor for
> a bang-up signal.

Actually, an 8 ft bottom conductor, coil, 2 ft top section,
and a large top hat does beat a "center-loaded" antenna as
long as the top hat is outside of the main field of the coil.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

79. Re: 300 ohm TV ribbon no longer available in city of 1,000,000

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 01:23:49 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3FF619A4.9040900@ix.netcom.com>
Source record: 102451

Dan Jacobson wrote:

>In my quest to buy a reel of 300 ohm TV flatwire in Taiwan's 3rd
>largest city, Taizhong, it appeared to be a losing cause
>
Hell, it's all made over there, isn't it, anymore....

80. Re: Radiio Shack FM BC band convert...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 01:27:29 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3FF61A7F.1030209@ix.netcom.com>
Source record: 102452

D&B Rude wrote:

>Happy New Year to All!
>I am looking for an article that appeared some years ago concerning the
>cutting and phasing of Radio Shack FM broadcast band beams. They make a six
>element beam that when cut down (two of them) and phased, make an excellent
>light weight, narrow beamwidth, good gain, inexpensive beam for 2 meters. I
>have a pair polarized vertically, and they work great.
>
>Problem is, someone gave me this great set up and he can not remember where
>he got the info for cutting to length, and is also looking for the info.
>
I don't have specific info, but if you shorten the elements by the radio
100/146, you should be
pretty close.

BTW, that pdf file link in this thread is only good if you are an ARRL
member. I'm not.

81. Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 01:35:51 UTC
From: Keven Matthews <keven@tiscali.co.uk>
Message-ID: <3ff61b79_2@mk-nntp-2.news.uk.tiscali.com>
Source record: 102453

I recently moved my shack from an upstairs room to downstairs, much closer to the garden and antennas. All the antennas previously had a long run of coax to the old shack. The obvious thing was to have a nice new short run of coax to my HF vertical which is now only 15' away. So I cut the coax and since then the antenna is no longer resonant on 40 Metres. Also this week I was putting up a new HF wire antenna, it was getting dark and raining by the time I was hoisting it up but so I could just have a listen that night a grabbed an old (15 years) large coiled up of quantity RG213 coax complete with rotten oxydized pl259 plugs on each end which had just sat on the garage wall for years. I just slung the coil down and plugged in at each end. The plugs looked so rotten it was shameful but it pitch dark by then! However The SWR was pretty good across the band. Regardless I started my evening doing a tidy job with some of that nice 5DFB japanese coax all ready for the following day. Guess what ? I put on the nice new cable and plugs and the antenna is no longer anywhere near resonant on 80M. So why am I getting a better result with a long length of still coiled cable sitting on my patio rather that a much shorter brand new piece. Please could some one explain to me if the coax length does matter, it has certainly never been a problem for me in the past on VHF and Six but I am new to HF frequencies. If you do need to have a certain size run, what can you do with the cable if you phisically dont need it ?

Many Thanks & 73 for 2004

Keven G7UUD

82. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 02:05:57 UTC
From: desmoface@aol.com
Message-ID: <20040102210557.15365.00002303@mb-m03.aol.com>
Source record: 102454

>So why am I
>getting a better result with a long length of still coiled cable sitting on
>my patio rather that a much shorter brand new piece. Please could some one
>explain to me if the coax length does matter, it has certainly never been a
>problem for me in the past on VHF and Six but I am new to HF frequencies.
>If you do need to have a certain size run, what can you do with the cable if
>you phisically dont need it ?
>
>
>Many Thanks & 73 for 2004
>
>Keven G7UUD
>
Hi Keven, how long is your antenna? Is it the right length for 40 meters?? What is the impedance of the coax? Moving the antenna may be enough to change it's resonance as it may be interacting with it's surroundings...Sometimes a 1/4 wl 75ohm (x velocity factor) length of coax will do the trick...good luck..

Steve
kb8viv

83. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 02:33:57 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <3ff62942$0$29006$ba620e4c@news.skynet.be>
Source record: 102455

Hi Keven,

Do you have a choke balun at the antenna ? Maybe the braid of the coax is radiating.

73 de ON5MJ - Jacques.

84. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 03:11:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <38ccvvodicfnuccat2revmvr91c6m08h0t@4ax.com>
Source record: 102456

On Sat, 3 Jan 2004 01:35:51 -0000, "Keven Matthews"
<keven@tiscali.co.uk> wrote:

>I recently moved my shack from an upstairs room to downstairs, much closer
>to the garden and antennas. All the antennas previously had a long run of
>coax to the old shack. The obvious thing was to have a nice new short run
>of coax to my HF vertical which is now only 15' away. So I cut the coax and
>since then the antenna is no longer resonant on 40 Metres. Also this week I
>was putting up a new HF wire antenna, it was getting dark and raining by the
>time I was hoisting it up but so I could just have a listen that night a
>grabbed an old (15 years) large coiled up of quantity RG213 coax complete
>with rotten oxydized pl259 plugs on each end which had just sat on the
>garage wall for years. I just slung the coil down and plugged in at each
>end. The plugs looked so rotten it was shameful but it pitch dark by then!
>However The SWR was pretty good across the band. Regardless I started my
>evening doing a tidy job with some of that nice 5DFB japanese coax all ready
>for the following day. Guess what ? I put on the nice new cable and plugs
>and the antenna is no longer anywhere near resonant on 80M. So why am I
>getting a better result with a long length of still coiled cable sitting on
>my patio rather that a much shorter brand new piece. Please could some one
>explain to me if the coax length does matter, it has certainly never been a
>problem for me in the past on VHF and Six but I am new to HF frequencies.
>If you do need to have a certain size run, what can you do with the cable if
>you phisically dont need it ?
>
>
>Many Thanks & 73 for 2004
>
>Keven G7UUD
>

Hi Keven,

It sounds like the coiled excess of the first attempts were serving as
chokes for your antenna. For one, at 15 feet away, that is very close
and certainly puts you in the fields such that you become part of
either the ground, or its loss. As soon as you cut away that excess,
you probably now have (more or less) a straight run. Hence no choking
action and the antenna sees you more clearly now back down the
exterior of the transmission line (classic common mode issues are
revealed by change in SWR attending transmission line length changes).

Try replacing some of that lost length (probably irretrievable now) so
that you can at least build a choke of half a dozen 6 to 8 inch
diameter turns at the feedpoint. OR Add a 1:1 Current Balun at the

feedpoint. I presume you have at least some rudimentary form of ground (half a dozen radials) to help even out the picture. This last will stabilize any tune-ups you may need to perform; but once there should be robust.

73's
Richard Clark, KB7QHC

85. Re: TV reception challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 03:21:36 UTC
From: ComputerDoctor <davekimble@austarnet.com.au>
Message-ID: <bt5ch2$o8o$1@austar-news.austar.net.au>
Source record: 102457

"Ken Finney" <kenneth.c.finney@boeing.com> wrote in message
news:HqvIEv.CML@news.boeing.com...
>
> "ComputerDoctor" <davekimble@austarnet.com.au> wrote in message
> news:bsra65$20s$1@austar-news.austar.net.au...
> > I live in a small steep valley in a very hilly area (Innisfail,
> Queensland,
> > Australia) with a nearby ridge just preventing 'line-of-sight' to the TV
> > broadcast tower (Mt. Bellenden Ker, picture:
>
> You might find this site interesting:
>
> http://www.oldtvguides.com/DXPhotos/

Thanks for that, Ken (and others).
I particularly liked the photo of the 80' guyed tower with the hot air
balloon in the background.
Now there's a thought.... :-)

As WFH said, its not so much a case of "weak signal" as too many reflected
signals.
Just for the moment I have used a 4 metre coax extension cable + balun and
moved the rabbit ears across the room, pointed them in the 'wrong'
direction, and if I sit in the opposite corner and the dog keeps still, it
is definitely an improvement.
India are 3 for 427 on the second day :-(

86. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 03:25:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff636b3_5@corp.newsgroups.com>
Source record: 102458

Keven Matthews wrote:
> So why am I
> getting a better result with a long length of still coiled cable sitting on
> my patio rather that a much shorter brand new piece.

Losses in coax tend to drive the SWR toward 1:1. At 440 MHz, the SWR
on a 200 foot unterminated piece of RG-58 is close to 1:1. If the
SWR goes up when you shorten or upgrade your coax, that's good news.
The bad news is your antenna system needs some tuning. Walter Maxwell
has a chapter on such in "Reflections", titled: "Low SWR for the
Wrong Reasons". One can always accomplish a low SWR with a dummy load.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

87. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 04:15:01 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <3ff644c4_4@news1.prserv.net>
Source record: 102459

Look, Keven,

At 15', you are in the near field of any HF antenna. You do not want your station to be in the near field of the antenna. All kinds of undesirable and often unpredictable things happen.
--
Crazy George
Remove N O and S P A M imbedded in return address

88. What Balun to use 1:1 or 4:1 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 04:42:47 UTC
From: VE3PMK <nospam@nospam.org>
Message-ID: <BC1BB276.5EA9%nospam@nospam.org>
Source record: 102463

So in as much as I realise the importance of using a balun when feeding certain antennas, what factors determine what ratio is best suited to the application? Is there a general rule?
(That is to say a long-wire is best fed with 'x:1' where a loop antenna is fed with 'y:1'?)
I typically connect a center fed dipole is with a 1:1, but what configuration calls for the 4:1, or even the 9:1 ??

(reply here please, it'll probably make an informative reading for most)

Thanks,
Pat

89. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 04:45:21 UTC
From: Howard Eisenhauer <howarde@REMOVECAPShfx.eastlink.ca>
Message-ID: <oghcvvgbhd7oleedgbu3foluifabep2i1m@4ax.com>
Source record: 102460

Your long piece of crappy old oxidized coax is excessivly (compared to
your shorter fresh stuff) attenuating the signal towards your antenna,
resulting in less power available at the antenna to be reflected back
towards your VSWR meter, & the power that is reflected is being
attenuated on the way back as well, making your VSWR look even better.

If you bend a section of coax & it makes a crackly noise it's only
good for landfill. Doesn't have to be old used stuff either, I've seen
it bad right from the distributor.

Wanta have some fun someday? Measure your forward & reflected @ your
transmitter, then measure it @ the antenna end of the line. Very
Educational.

Howard.

On Sat, 3 Jan 2004 01:35:51 -0000, "Keven Matthews"
<keven@tiscali.co.uk> wrote:

>I recently moved my shack from an upstairs room to downstairs, much closer
>to the garden and antennas. All the antennas previously had a long run of
>coax to the old shack. The obvious thing was to have a nice new short run
>of coax to my HF vertical which is now only 15' away. So I cut the coax and
>since then the antenna is no longer resonant on 40 Metres. Also this week I
>was putting up a new HF wire antenna, it was getting dark and raining by the
>time I was hoisting it up but so I could just have a listen that night a
>grabbed an old (15 years) large coiled up of quantity RG213 coax complete
>with rotten oxydized pl259 plugs on each end which had just sat on the
>garage wall for years. I just slung the coil down and plugged in at each
>end. The plugs looked so rotten it was shameful but it pitch dark by then!
>However The SWR was pretty good across the band. Regardless I started my
>evening doing a tidy job with some of that nice 5DFB japanese coax all ready
>for the following day. Guess what ? I put on the nice new cable and plugs
>and the antenna is no longer anywhere near resonant on 80M. So why am I
>getting a better result with a long length of still coiled cable sitting on
>my patio rather that a much shorter brand new piece. Please could some one
>explain to me if the coax length does matter, it has certainly never been a
>problem for me in the past on VHF and Six but I am new to HF frequencies.
>If you do need to have a certain size run, what can you do with the cable if
>you phisically dont need it ?
>
>
>Many Thanks & 73 for 2004
>
>Keven G7UUD
>

90. Re: Radiio Shack FM BC band convert...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 05:05:23 UTC
From: Roger Gt <Xenot@pacbell.net>
Message-ID: <n4sJb.5968$MQ6.559@newssvr25.news.prodigy.com>
Source record: 102461

"Robert Casey" <wa2ise@ix.netcom.com> wrote in message
news:3FF61A7F.1030209@ix.netcom.com...
> D&B Rude wrote:
>
> >Happy New Year to All!
> >I am looking for an article that appeared some years ago concerning the
> >cutting and phasing of Radio Shack FM broadcast band beams. They make a
six
> >element beam that when cut down (two of them) and phased, make an
excellent
> >light weight, narrow beamwidth, good gain, inexpensive beam for 2 meters.
I
> >have a pair polarized vertically, and they work great.
> >
> >Problem is, someone gave me this great set up and he can not remember
where
> >he got the info for cutting to length, and is also looking for the info.
> >
> I don't have specific info, but if you shorten the elements by the radio
> 100/146, you should be
> pretty close.
>
> BTW, that pdf file link in this thread is only good if you are an ARRL
> member. I'm not.

Would you like the PDF E-mailed to you?

91. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 05:58:37 UTC
From: richardharrison@webtv.net
Message-ID: <23584-3FF65A0D-89@storefull-2314.public.lawson.webtv.net>
Source record: 102462

Mark Keith wrote:
"For DX transmitting on the lower bands, vertical polarization is the best way to go."

In some cases. If that were always the case, why do commercial shortwave stations all use horizontal polarization for both point-to-point service and broadcasting?

During my years in shortwave broadcasting, I never saw a single vertically polarized antenna used for HF transmitting.

My experience is not unique. E.A. Laport was Chief Engineer, RCA International Division of Radio Corporation of America (RCA). For many years RCA was the largest short-wave communications organization in the world. In his book, "Radio Antenna Engineering", Ed Laport says:

"The earliest high-frequency beam antennas used vertical polarization, but subsequent evolution has caused the almost universal use of horizontal polarization. There may be a reversion to vertical polarization in the future for certain applications."

It was natural to try vertical polarization first for directional arrays as low and medium frequencies were first exploited for radio and these had to use vertical antennas. It was uneconomical to elevate horizontal antennas to heights necessary for sky wave performance and there is no ground wave propagation of horizontally polarized waves. The directional vertical antenna had been developed early in broadcasting by Brown, Lewis, and Epstein who did their RCA development work at HF for economy and convenience. Work was already in place for the earliest vertical HF beam antennas. These only evolved into the universal horizontal polarization at HF due to real advantages.

Huge investments are made in HF transmitting antenna farms. I worked in a station that had a farm of over 400 acres of HF antennas, all horizontally polarized. This was no flip of a coin decision. The decision was based on the preponderance of experience at the time. Our paths were so long that we had to consider 2-hops in addition to a single hop on most.

There surely must be instances where vertical polarization proves better than horizontal, but these are exceptions, not the rule.

An example might be an antenna closely surrounded by the sea. A vertical array should be ideal.

Best regards, Richard Harrison, KB5WZI

92. Re: What Balun to use 1:1 or 4:1 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 08:53:17 UTC
From: Mike <m*150@lycos.co.uk>
Message-ID: <_pvJb.15819$FN.10360@newsfep4-winn.server.ntli.net>
Source record: 102464

Hello,

Forget reading books! Look at the aerial being used and the feeder
connecting it to your radio. Calculate the difference in impedance. Simple
as that.

"VE3PMK" <nospam@nospam.org> wrote in message
news:BC1BB276.5EA9%nospam@nospam.org...
> So in as much as I realise the importance of using a balun when feeding
> certain antennas, what factors determine what ratio is best suited to the
> application? Is there a general rule?
> (That is to say a long-wire is best fed with 'x:1' where a loop antenna is
> fed with 'y:1'?)
> I typically connect a center fed dipole is with a 1:1, but what
> configuration calls for the 4:1, or even the 9:1 ??
>
>
> (reply here please, it'll probably make an informative reading for most)
>
> Thanks,
> Pat
>

93. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 08:55:43 UTC
From: Mike <m*150@lycos.co.uk>
Message-ID: <gsvJb.15820$FN.12805@newsfep4-winn.server.ntli.net>
Source record: 102465

Hi Kevin,

If you have to cut bits off the coax to get the SWR down, your aerial isn't resonant on the frequency being used. The coax is acting like part of the aerial.
Get the aerial resonant and it doesn't matter what length of coax you use as the SWR will not change.

"Keven Matthews" <keven@tiscali.co.uk> wrote in message news:3ff61b79_2@mk-nntp-2.news.uk.tiscali.com...
> I recently moved my shack from an upstairs room to downstairs, much closer
> to the garden and antennas. All the antennas previously had a long run of
> coax to the old shack. The obvious thing was to have a nice new short run
> of coax to my HF vertical which is now only 15' away. So I cut the coax and
> since then the antenna is no longer resonant on 40 Metres. Also this week I
> was putting up a new HF wire antenna, it was getting dark and raining by the
> time I was hoisting it up but so I could just have a listen that night a
> grabbed an old (15 years) large coiled up of quantity RG213 coax complete
> with rotten oxydized pl259 plugs on each end which had just sat on the
> garage wall for years. I just slung the coil down and plugged in at each
> end. The plugs looked so rotten it was shameful but it pitch dark by then!
> However The SWR was pretty good across the band. Regardless I started my
> evening doing a tidy job with some of that nice 5DFB japanese coax all ready
> for the following day. Guess what ? I put on the nice new cable and plugs
> and the antenna is no longer anywhere near resonant on 80M. So why am I
> getting a better result with a long length of still coiled cable sitting on
> my patio rather that a much shorter brand new piece. Please could some one
> explain to me if the coax length does matter, it has certainly never been a
> problem for me in the past on VHF and Six but I am new to HF frequencies.
> If you do need to have a certain size run, what can you do with the cable if
> you phisically dont need it ?
>

>
> Many Thanks & 73 for 2004
>
> Keven G7UUD
>
>

94. ARM yourself for 2004

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 09:58:29 UTC
From: EZarm <EZ@onearth.com>
Message-ID: <bt63uo$eho87@imsp212.netvigator.com>
Source record: 102466

arm7 new design board

http://arm.web7days.com

95. Hybrid-quad

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 10:20:48 UTC
From: DL7JSK <truckdrivingman@hotmail.com>
Message-ID: <bt651r$og2$05$1@news.t-online.com>
Source record: 102467

Hi OMs
I'm making a hybridquad for 1298 MHz.What's the optimum distance of the reflector plate to the quad element ? I've heard that it's quarterwave distance.Which material is better for the reflector,aluminium or epoxy with copper surface ?

73
Tom

96. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 13:10:25 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <5bzJb.113315$VB2.290693@attbi_s51>
Source record: 102468

Kevin, the resonance of the antenna is determined by the length of the antenna! It is not related to the VSWR!!!

If you are using VSWR as an indicator of resonance it is meaningless!

Since your VSWR is changing with length of Coax, I suspect you have RF on the braid of the coax. Install a series of Chokes or ferrites.

W1MCE

Keven Matthews wrote:
SNIP
The SWR was pretty good across the band. Regardless I started my
> evening doing a tidy job with some of that nice 5DFB japanese coax all ready
> for the following day. Guess what ? I put on the nice new cable and plugs
> and the antenna is no longer anywhere near resonant on 80M. So why am I
> getting a better result with a long length of still coiled cable sitting on
> my patio rather that a much shorter brand new piece.

SNIP

97. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 14:55:04 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040103095504.04241.00002450@mb-m29.aol.com>
Source record: 102369

You have to be careful when you are talking polarization vs. antenna radiation pattern. We know that where horizontally polarized antenna has a lobe, vertical would have a null (at the same height).

Recent studies found efficiency of various polarizations based on geographical location, related to geomagnetic fields (gyrofrequency).

On 80 and 160 it has been proven that verticals work better. But they need decent ground/radial fields in order to bring the angle down and provide efficiency. Salt water is a big friend of verticals.

Propagation can play big games with angles. There are times when low inverted Vee can beat 4 square, due to high angle (W8JI called me pathological scientist for bringing attention to it, now he is "guru" on it).

So it goes back to my old saying: "You'll never have enough antennas".

Yuri, K3BU

98. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 16:11:28 UTC
From: jder8745@aol.com
Message-ID: <20040103111128.03799.00002428@mb-m07.aol.com>
Source record: 102370

Cecil sed,

"Walter Maxwell has a chapter on such in "Reflections", titled: "Low SWR for
the
Wrong Reasons".

==========
Should be required reading for all hams.

73 de Jack, K9CUN

99. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 16:13:46 UTC
From: jder8745@aol.com
Message-ID: <20040103111346.03799.00002429@mb-m07.aol.com>
Source record: 102371

Dave sed: "Kevin, the resonance of the antenna is determined by the length of the
antenna! It is not related to the VSWR!!!

If you are using VSWR as an indicator of resonance it is meaningless!"

==========

RIGHT ON!

100. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 16:35:51 UTC
From: richardharrison@webtv.net
Message-ID: <1376-3FF6EF67-12@storefull-2312.public.lawson.webtv.net>
Source record: 102373

Yuri, K3BU wrote:
"Recent studies found efficiency of various polarizations based on geographical location, related to geomagnetic fields (gyrofrequency).

Do antenna modelimg programs adjust for gyrofrequencies? I can readily see that soil conductivity at a geographical location would affect efficiency and perhaps the polarization choice.

John H. Nelson, RCA Short-Wave Radio Propagation Analyst, found that those signals which pass through or close to the auroral zone suffer the greatest degradation. If the signal must take a great circle route over the North Polar region, problems increase.

Nelson also found that propagation here on the earth correlated with the relative positions of the planets in the solar system. Be this astronomy or astrology, it allowed Nelson to make pretty good radio propagation forecasts. See: "The Propagation Wizard`s Handbook", a "73" publication by J.H. Nelson.

Best regards, Richard Harrison, KB5WZI

101. Re: 300 ohm TV ribbon no longer available in city of 1,000,000

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 16:36:20 UTC
From: Minnie Bannister <GoonButNotForgotten@myob.net>
Message-ID: <3FF6EF84.3080305@myob.net>
Source record: 102372
Body handling: HTML body converted to readable text

Not necessarily: Taiwanese workers are expecting decent wages now, so the Taiwanese companies are moving their factories to China and other places.

-=-
Alan

On 01/02/04 08:23 pm Robert Casey put fingers to keyboard and launched the following message into cyberspace:

>> In my quest to buy a reel of 300 ohm TV flatwire in Taiwan's 3rd
>> largest city, Taizhong, it appeared to be a losing cause
>>
> Hell, it's all made over there, isn't it, anymore....

102. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 17:02:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff6f638$1_7@corp.newsgroups.com>
Source record: 102374

Richard Harrison wrote:
> There surely must be instances where vertical polarization proves better
> than horizontal, but these are exceptions, not the rule.

Vertically polarized noise is about 10 dB higher than horizontally
polarized noise at my QTH rendering a vertical antenna virtually
useless for receiving compared to a horizontal antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

103. Re: What Balun to use 1:1 or 4:1 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 17:38:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff6fe94_7@corp.newsgroups.com>
Source record: 102375

VE3PMK wrote:
> I typically connect a center fed dipole is with a 1:1, but what
> configuration calls for the 4:1, or even the 9:1 ??

Tongue-in-cheek mode on:
If you are matching 50 ohms to 50 ohms, use a 1:1
If you are matching 50 ohms to 200 ohms, use a 4:1
If you are matching 50 ohms to 450 ohms, use a 9:1
Tongue-in-cheek mode off:

Just trying to emphasize that one needs to know what impedance occurs
at both the balun input and balun output terminals. If one doesn't
know, a 1:1 choke (current balun) is about as good a choice as any.

The impedance transforming function of a balun involves differential
currents. The choking function of a balun involves common-mode currents.
The relationship between these two currents can be measured but is
usually unknown. For the majority of HF ham radio applications, e.g.
multi-band operation from one dipole, IMO, the choking impedance is
more important than any transforming action higher than 1:1.

An example of where a 6:1 balun might be chosen is a resonant folded
dipole fed with 300 ohm balanced line. The SWR on the feedline will
be low. The impedance seen at the balun output terminals will be
in the neighborhood of 300 ohms. 300/6 = 50 ohms.

The key to proper balun functioning is that the choking impedance
needs to be at least five times the impedance looking out from
the balun output terminals, preferably higher. In an antenna
system with reflections, the impedance seen at the balun output
terminals will never be the characteristic impedance of the
feedline. Unless the antenna is matched to the feedline at the
antenna, the transmitter end will not see the Z0 of the feedline.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

104. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 17:39:44 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff6fee8$1_7@corp.newsgroups.com>
Source record: 102376

Cecil Moore wrote:

> Richard Harrison wrote:
>
>> There surely must be instances where vertical polarization proves better
>> than horizontal, but these are exceptions, not the rule.
>
> Vertically polarized noise is about 10 dB higher than horizontally
> polarized noise at my QTH rendering a vertical antenna virtually
> useless for receiving compared to a horizontal antenna.

Sorry, forgot to say this was on 40m.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

105. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:09:17 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt70gs$39fi$1@news3.infoave.net>
Source record: 102377

Arrrg! Your making my stomach hurt reading this misinformation...

(They told me all I had to do to become a ham was to memorize these questions.)

"Mike" <m*150@lycos.co.uk> wrote in message news:gsvJb.15820$FN.12805@newsfep4-winn.server.ntli.net...
> Hi Kevin,
>
> If you have to cut bits off the coax to get the SWR down, your aerial isn't
> resonant on the frequency being used. The coax is acting like part of the
> aerial.
> Get the aerial resonant and it doesn't matter what length of coax you use as
> the SWR will not change.
>

106. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:11:19 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <bBDJb.48697$I07.144572@attbi_s53>
Source record: 102378

Here's my experience.

On transmit:

160 meters: 90 foot vertical is 20 dB better than 60 ft high inv vee
80 meters: 60 foot vertical is 10 dB better than 60 ft high inv vee
40 meters: 30 foot vertical is equal to 90 ft high inv vee
20 meters: 30 foot vertical is beaten by 90 ft high inv vee about 25% of
the time
15 meters and up: Any dipole trounces any vertical.

On receive:

160 and 80 meters: A low dipole trounces any vertical
40 meters and up: best receive antenna is best transmit antenna

Rick N6RK

> >> There surely must be instances where vertical polarization proves
better
> >> than horizontal, but these are exceptions, not the rule.
> >
> > Vertically polarized noise is about 10 dB higher than horizontally
> > polarized noise at my QTH rendering a vertical antenna virtually
> > useless for receiving compared to a horizontal antenna.
>
> Sorry, forgot to say this was on 40m.
> --
> 73, Cecil http://www.qsl.net/w5dxp
- 19 Different Servers! =-----

107. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:15:51 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <bg1evv46cfae9qlilofhkla5c81nibe7q9@4ax.com>
Source record: 102379
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Fri, 02 Jan 2004 10:35:27 GMT, "Roger Gt" <Xenot@pacbell.net>
wrote:

>
>"Roger Halstead" <mynews@rogerhalstead.com> wrote in message
>news:2o5avvca693c5u69j067b42vndllh676un@4ax.com...
>> On Thu, 01 Jan 2004 17:43:00 -0600, Cecil Moore
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>
>> >Roger Halstead wrote:
>> >> I always use a "tag line". which they refer to as an arresting harness.
><snip>
>> >
>> >I have my Purple Martin birdhouse mounted on my tower at a height
>> >of about 20 ft. Last year, I wished I had not been wearing my safety
>> >harness when I was surprised by a six foot long rat snake during a
>> >nest check. The harness forced me to face the snake when I would have
>> >much rather jumped. :-)
>>
>> Everything is a compromise<:-)) Although I'd say finding the snake
>> would require a lot higher odds than seat belts Vs being thrown out of
>> a car. <:-))
>>
>> Bout all we have in Michigan are Rattle snakes
><snip>
>> The drawback to tag lines and safety belts at 100 feet is the likely
>> hood of coming across a Yellow jackets nest inside the mast or boom.
>> They are nasty tempered little suckers.
><snip>
>
>At least I have never encountered snakes or wasps on those rare occasions I
>needed to go aloft to fix or retrieve a lose halyard. It's only 35 feet
>above deck but at sea in a light chop it swings about two to three feet with
>no one up there, add my weight it swings about five to seven feet. So I tie

I've climbed towers for years and I'm also a pilot, but I want my
tower to hold still! <:-)) If you do much of it, I guess a person,
or some people could get used to it. I do know of guys going up
there, but most preferred to lay the mast down. <:-))

>myself a safety harness from 3 strands of 5/8 inch Yacht Braid and secure a
>double line for hauling to a rigging ring. It's safer than a belt, and
>while you can't fall out you can get a bad case of motion sickness. I use
>flying jam cleats to serve as climbers so up and down are slow. There are

>no mast steps nor anything to grab except at the spreaders. So I try to
>avoid going up if at all possible. I sail mostly in the winter, and the
>water is cold!
>My antennas are all hinged, so I never climb them!
>I think you need to make some accommodation when you pass 65.

My first wife's father was still roofing barns well past the age of
80. Those steep, hip roofed barns! Not me, I wouldn't climb up one
of those for anything.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>Roger Gt
>
>
>

108. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:27:34 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt71j2$39ls$1@news3.infoave.net>
Source record: 102380

What distances are you talking about? DX, local, etc...

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
news:bBDJb.48697$I07.144572@attbi_s53...
> Here's my experience.
>
> On transmit:
>
> 160 meters: 90 foot vertical is 20 dB better than 60 ft high inv vee
> 80 meters: 60 foot vertical is 10 dB better than 60 ft high inv vee
> 40 meters: 30 foot vertical is equal to 90 ft high inv vee
> 20 meters: 30 foot vertical is beaten by 90 ft high inv vee about 25% of
> the time
> 15 meters and up: Any dipole trounces any vertical.
>
> On receive:
>
> 160 and 80 meters: A low dipole trounces any vertical
> 40 meters and up: best receive antenna is best transmit antenna
>
> Rick N6RK
>
> > >> There surely must be instances where vertical polarization proves
> better
> > >> than horizontal, but these are exceptions, not the rule.
> > >
> > > Vertically polarized noise is about 10 dB higher than horizontally
> > > polarized noise at my QTH rendering a vertical antenna virtually
> > > useless for receiving compared to a horizontal antenna.
> >
> > Sorry, forgot to say this was on 40m.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> - 19 Different Servers! =-----
>
>

109. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:27:34 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt71l1$3a0m$1@news3.infoave.net>
Source record: 102382

What distances are you talking about? DX, local, etc...

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
news:bBDJb.48697$I07.144572@attbi_s53...
> Here's my experience.
>
> On transmit:
>
> 160 meters: 90 foot vertical is 20 dB better than 60 ft high inv vee
> 80 meters: 60 foot vertical is 10 dB better than 60 ft high inv vee
> 40 meters: 30 foot vertical is equal to 90 ft high inv vee
> 20 meters: 30 foot vertical is beaten by 90 ft high inv vee about 25% of
> the time
> 15 meters and up: Any dipole trounces any vertical.
>
> On receive:
>
> 160 and 80 meters: A low dipole trounces any vertical
> 40 meters and up: best receive antenna is best transmit antenna
>
> Rick N6RK
>
> > >> There surely must be instances where vertical polarization proves
> better
> > >> than horizontal, but these are exceptions, not the rule.
> > >
> > > Vertically polarized noise is about 10 dB higher than horizontally
> > > polarized noise at my QTH rendering a vertical antenna virtually
> > > useless for receiving compared to a horizontal antenna.
> >
> > Sorry, forgot to say this was on 40m.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> - 19 Different Servers! =-----
>
>

110. Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:29:29 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <bt71m9$3nbma$1@ID-213023.news.uni-berlin.de>
Source record: 102381

I live on the 3rd floor of an apartment building. I just got permission to put up a vertical antenna on the roof with 1 restriction - the antenna can't be more than 10 feet tall.

I can put radials on the roof. Another problem (maybe) - I can't have a key to access the roof so once the antenna is up, it needs to be a "set it and forget it" type. Cost is an issue.

Also, the building is VERY passive to RF - I get good performance with a 10 meter mag mount on the inside of my A/C wall unit. I also have a 2m/440 mag mount there and it works well. I also have a GPS unit (Garmin Vista) which works quite well indoors, despite it's patch antenna (low gain). For low banding I have a 153'2" dipole wrapped around the building. It's a good performer on 20 and lower but performance falls off above 15 megs. On 10 m, my mag mount antenna indoors performs better.

I'll be running a Yaesu FT-817 with a homebrew 40w amp and a LDG Z100 tuner. My main requirements as far as operating bands are 20 meters. I'd like to get 17m too if I could.

I'm thinking a Hustler 20m mobile antenna with a long base rod. I considered a screwdriver antenna but cost & maintenance rules that out.

Here's my parts list:

Hustler RM-20S 20 meter super resonator $28.99
Hustler MO-3 54" rigid base mast $23.99
Hustler RVM Mount $20.99

Total $73.97

Any ideas?

73's de Ken KG0WX

111. Advice wanted:T-match Coax Balun for Yagi Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:35:21 UTC
From: "Steve B." <eagle572REMOVE@REMOVEcomcast.net>
Message-ID: <Ksmdnamu3pz6lmqiRVn-hw@comcast.com>
Source record: 102383

I have a 6 meter beam with "plumbers delight" construction. I have not been successful in making a 1/2 wave coax balun (T-match) get a proper impedance match at 50.125 MHz center frequency. The driven element is 0.625" Outside diameter. The T-bars have adjustable shorting straps for a max length of 14", with 3" spacing below the driven element.

The balun is made of RG-142 Teflon-coax, and is 81 inches long. The velocity factor is 0.695, so the length is:

1/2 WaveLength (meters) = (150 * V)/F where F is in MHz.

Thus, the half-wave coax would be (150*0.695)/50.125 in meters.
Multiply by 39.37 inches per meter to get 81.8 inches for the coax length.

Any ideas why this did not do the job? I checked the coax for opens/shorts and moved the T-bar shorting straps to no avail. The best SWR was no better than about 3:1, even after adjusting the length of the driven element.

I tested the driven element (both by itself and installed on the beam) mounted on a temporary mast at about 10 feet to avoid most of the ground effect.

Thanks,
Steve Bell KJ7OG

112. Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:38:53 UTC
From: hnmm <hxx@private.com>
Message-ID: <3FF70C3C.AC4173C5@private.com>
Source record: 102392

.

113. Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:38:59 UTC
From: Vaughn Combs <n2bha@arrl.net>
Message-ID: <7%DJb.45623$q55.17003@twister.nyroc.rr.com>
Source record: 102384
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

I have a few questions and I thought that this may be the group that could help. I have a nice sized backyard and would like to construct an antenna that would give me good performance on 80-10m bands.

The convenient dimensions would put a support (far end) at either 92 feet from the back of the house (support exists that is about 15-20 feet up) or 120 feet from the back of the house (mast anchored to the other side of a shed could easily be installed. Or a more inconvenient support could be erected up to 300 feet out (no support buildings) at the absolute far end of the property. The width of the property as seen looking out the back window is about 65 feet (no supports existing on either side).

Special circumstances and constraints:

-- No tall trees on the property.

-- Attic shack (attic window is probably about 25 feet up). Need to keep to the attic.

-- Cable run from back of house to operating position within the attic would be approximately 25 feet

-- MUST eliminate RFI in the shack and house.

My current setup is an end-fed longwire that works well on all bands except 40m (rig shuts down as I am dipping the SWR to almost 1:1 ;-). I threw up the wire as winter was upon me. I have been off the air for almost 10 years and REALLY wanted to get on the air again.

While the longwire is performing quite well with the exception of 40m I am getting a ton of RF in the shack and it is blanking out TVs and creating loud humming in speakers with 100W from the XMTR. I realize that this is most likely due to the fact that I have inefficient RF ground and I have cut and run radial at 1/4 wave for each band and ran them under the eaves up here in the attic. This has not solved the problem. I am friendly with all of my neighbors and have visited them and did testing on the bands with them on the phone. They are not experiencing any problems. My wife, while understanding, would REALLY like the problem to go away ;-)

My main goal is to build an antenna that will solve the aforementioned RFI problem and that will provide good performance given my constraints.

Any ideas would be GREATLY appreciated.

Many Thanks and 73,
Vaughn
N2BHA

114. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:41:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3m2evvochgjncul105rq5d5gpj3oj98ol2@4ax.com>
Source record: 102385

On Fri, 2 Jan 2004 23:58:37 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Mark Keith wrote:
>"For DX transmitting on the lower bands, vertical polarization is the
>best way to go."
>
>In some cases. If that were always the case, why do commercial shortwave
>stations all use horizontal polarization for both point-to-point service
>and broadcasting?

Again this HF advice to an MF enquiry. The two, propagationally are
as different as bananas and apples.

> In his book, "Radio Antenna Engineering", Ed Laport says:
>
>"The earliest high-frequency beam antennas used vertical polarization,

This begs the historical perspective that the meaning of High
Frequency has not been constant. Laport's statement belies this era
he quotes who characterized High Frequency as anything above 500 KHz
and often characterized the shortwave frequencies as Ultra High
Frequencies.

The "earliest high frequency antennas" were in fact BCB. And guess
what, they are still Vertical antennas!

>but subsequent evolution has caused the almost universal use of
>horizontal polarization.

The subsequent evolution is explicitly shortwave. This validates your
experience but says nothing of the problem at hand in the 160M band,
which by example of a few KHz away is dominated by BCB verticals
almost to the point of saturation.

>

73's
Richard Clark, KB7QHC

115. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:45:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g83evvchnirl9oeakk91lijuki5i8122eu@4ax.com>
Source record: 102386

On Sat, 3 Jan 2004 10:35:51 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

> If the signal must take a great circle route over
>the North Polar region, problems increase.

Hi Richard,

This is a S+N/N problem, not propagation. It is not like the magnetic
pole is sucking signals into the ground. What the pole IS attracting
is the ionic flow from the sun's emissions which create a plasma of
noise.

73's
Richard Clark, KB7QHC

116. Re: What Balun to use 1:1 or 4:1 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:47:01 UTC
From: k9sqg@aol.com
Message-ID: <20040103134701.26136.00002037@mb-m15.aol.com>
Source record: 102387

Pat,

It is hard to give more than just very general guidance because "it depends". The impedance of the antenna on the fundamental frequency and multi-band frequencies of use will be the main determining factors. Frequently a 4:1 balun is appropriate for multiband installations since the impedence will vary quite widely. It will be a good match on some and poor on others.

Personally, I prefer to use open wire or ladder line for multiband antennas. A link coupled or double balanced tuner in the shack does the impedence transformation with little loss.

73s,

Evan

117. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 18:58:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rl3evvo8suhf2q9qf3luch0a14c0hqri5a@4ax.com>
Source record: 102388

On Sat, 3 Jan 2004 11:29:29 -0700, "Ken Bessler"
<kg0wxIHATESPAM@yahoo.com> wrote:

>I live on the 3rd floor of an apartment building. I just got permission
>to put up a vertical antenna on the roof with 1 restriction - the antenna
>can't be more than 10 feet tall.
>
>I can put radials on the roof. Another problem (maybe) - I can't have
>a key to access the roof so once the antenna is up, it needs to be a
>"set it and forget it" type. Cost is an issue.
>
>Also, the building is VERY passive to RF - I get good performance
>with a 10 meter mag mount on the inside of my A/C wall unit. I also
>have a 2m/440 mag mount there and it works well. I also have a
>GPS unit (Garmin Vista) which works quite well indoors, despite
>it's patch antenna (low gain). For low banding I have a 153'2" dipole
>wrapped around the building. It's a good performer on 20 and
>lower but performance falls off above 15 megs. On 10 m, my mag
>mount antenna indoors performs better.
>
>I'll be running a Yaesu FT-817 with a homebrew 40w amp and a
>LDG Z100 tuner. My main requirements as far as operating bands
>are 20 meters. I'd like to get 17m too if I could.
>
>I'm thinking a Hustler 20m mobile antenna with a long base rod. I
>considered a screwdriver antenna but cost & maintenance rules
>that out.
>
>Here's my parts list:
>
>Hustler RM-20S 20 meter super resonator $28.99
>Hustler MO-3 54" rigid base mast $23.99
>Hustler RVM Mount $20.99
> --------
> Total $73.97
>
>Any ideas?
>
>73's de Ken KG0WX
>

Hi Ken,

Research the experience of Mobile HF designs. You will need to invest
in the equivalent metal presented by a car (reasonably done through a

ground mat of similar foot print) to act as the ground/reference which allows these antennas to work.

It has been long established that a resonating coil about 8 feet up this permitted 10 feet, with a large top hat built out at the top would be the most efficient. This is the optimal solution to the restrictions you have been placed in.

As for your wrap around antenna; you show a clever intuition, and you may wish to use this 10 foot allowance to build it out, at that height instead of snug against the building. My hunch is that it won't make much difference (don't take down the original), but it gives you room to experiment if the building super will allow you 3 or 4 points elevated that same 10 feet. A smaller loop may aid in those bands that are just not performing. If you can get away with 2 points, you can look to top loaded verticals that go beyond the top hat (in other words, a top hat that requires extensive mechanical support).

73's
Richard Clark, KB7QHC

118. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 19:27:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff7182b_6@corp.newsgroups.com>
Source record: 102389

w4jle wrote:
> Arrrg! Your making my stomach hurt reading this misinformation...

Well, let's add a few words to make his statement correct.

>> Get the aerial resonant,

with a 50+j0 ohm feedpoint impedance,

>> and it doesn't matter what length of coax you use
>> as the SWR will not change.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

119. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 19:30:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n95evvsf1lv8ogao5rrcnrq2fn7t1gb7ce@4ax.com>
Source record: 102390
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Sat, 03 Jan 2004 18:38:59 GMT, "Vaughn Combs" <n2bha@arrl.net>
wrote:

>I have a few questions and I thought that this may be the group that could
>help. I have a nice sized backyard and would like to construct an antenna
>that would give me good performance on 80-10m bands.
>
>The convenient dimensions would put a support (far end) at either 92 feet
>from the back of the house (support exists that is about 15-20 feet up) or
>120 feet from the back of the house (mast anchored to the other side of a
>shed could easily be installed. Or a more inconvenient support could be
>erected up to 300 feet out (no support buildings) at the absolute far end of
>the property. The width of the property as seen looking out the back window
>is about 65 feet (no supports existing on either side).
>
>Special circumstances and constraints:
>
>-- No tall trees on the property.
>
>-- Attic shack (attic window is probably about 25 feet up). Need to keep to
>the attic.
>
>-- Cable run from back of house to operating position within the attic would
>be approximately 25 feet
>
>-- MUST eliminate RFI in the shack and house.
>
>My current setup is an end-fed longwire that works well on all bands except
>40m (rig shuts down as I am dipping the SWR to almost 1:1 ;-). I threw up
>the wire as winter was upon me. I have been off the air for almost 10 years
>and REALLY wanted to get on the air again.
>
>While the longwire is performing quite well with the exception of 40m I am
>getting a ton of RF in the shack and it is blanking out TVs and creating
>loud humming in speakers with 100W from the XMTR. I realize that this is
>most likely due to the fact that I have inefficient RF ground and I have cut
>and run radial at 1/4 wave for each band and ran them under the eaves up
>here in the attic. This has not solved the problem. I am friendly with all
>of my neighbors and have visited them and did testing on the bands with them
>on the phone. They are not experiencing any problems. My wife, while
>understanding, would REALLY like the problem to go away ;-)
>
>My main goal is to build an antenna that will solve the aforementioned RFI

>problem and that will provide good performance given my constraints.
>
>Any ideas would be GREATLY appreciated.
>
>Many Thanks and 73,
>Vaughn
>N2BHA
>

Hi Vaughn,

Your first shot is probably your best shot. You should drop a line from the near end antenna anchor point directly down to a ground and rely on a tuner to make up the differences. From the anchor point (where both wires are broke out) install a 1:1 Current Balun (Choke) between these points and the transmission line back to your rig to eliminate some of your noise into the house, and to get rid of the 40M instability (a classic symptom of Common Mode whose cure is in the Choke). The "ground" lead will radiate, but that is inconsequential. You may also experience a ground loop with it in parallel to your rig's source of ground.

This is the blind-side of many hams who forget that long ground wires have impedance and thus become miserable grounds for RF. Unless you work battery operation without a floating charger, you WILL have this second path to ground (the 'trons will find their own way, even if it isn't obvious to you). I always run battery with a float charger through an 1:1 isolation transformer to kill Mains borne noise; and whenever I experience ground loops, I simply disconnect the charger.

73's
Richard Clark, KB7QHC

120. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 19:31:48 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff7192d$1_6@corp.newsgroups.com>
Source record: 102391

Ken Bessler wrote:
> Any ideas?

Put a large enough top hat on a ten foot aluminum pole
to cause the system to resonate on 20m. No coil required.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

121. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 19:36:52 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt75kf$3c04$1@news3.infoave.net>
Source record: 102393

Now you are getting technical, beyond the understanding of most of today's hams.

(I looked everywhere on my SWR's meter and couldn't find a J knob and isn't a 50 to 0 SWR kinda high)

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:3ff7182b_6@corp.newsgroups.com...
> w4jle wrote:
> > Arrrg! Your making my stomach hurt reading this misinformation...
>
> Well, let's add a few words to make his statement correct.
>
> >> Get the aerial resonant,
>
> with a 50+j0 ohm feedpoint impedance,
>
> >> and it doesn't matter what length of coax you use
> >> as the SWR will not change.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

122. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 19:40:53 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt75rv$3bop$1@news3.infoave.net>
Source record: 102394

Refresh rate. Your used to seeing a 60 Hz refresh rate (actually two alternating frames at 30 Hz) on your home TV.

If you go to Europe, you go nuts for the first few days getting used to the flicker as they use a 50Hz refresh rate.

"hnmm" <hxx@private.com> wrote in message news:3FF70C3C.AC4173C5@private.com...
> .
>

123. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 19:41:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff71b75_6@corp.newsgroups.com>
Source record: 102395
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Vaughn Combs wrote:
> Any ideas would be GREATLY appreciated.

To effectively avoid RF in the shack, the differential currents need
to be balanced (equal in magnitude and 180 degrees out of phase). It
is extremely difficult to do that with an inv-L. I had good luck with
a dipole even though the shack was under one end of the dipole. I
brought the ladder-line off at right angles for about 50 ft then
routed ladder-line back to the shack from there so ladder-line
parallel to the antenna was always about 50 ft away from the antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

124. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 19:45:48 UTC
From: desmoface@aol.com
Message-ID: <20040103144548.21489.00001278@mb-m23.aol.com>
Source record: 102396

>I have a few questions and I thought that this may be the group that could
>help. I have a nice sized backyard and would like to construct an antenna
>that would give me good performance on 80-10m bands.

Well, you could build a full wave loop/delta loop...you'd need 3 good mounting points up as far as you can get em..In my case I used trees in the backyard..the height in my case was anywhere from 10 ft to about 30 ft...the loop works great and will work everything from 10-80 with a tuner...the lowest swr your likely to find is about 1.7:1..

The length to get it resonant at about the middle of 80 meters is aprox 250ft using insulated wire, around 260ft using bare antenna wire..the equation is 1005/freq..but subtract about 5% if you use insulated wire..just works out that way..you can feed the loop with plain ole coax like I did...good luck es 73's de kb8viv.

Steve

125. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 19:50:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff71d7c_6@corp.newsgroups.com>
Source record: 102397

hnmm wrote:
Human eyes can detect the refresh rate flicker up to a certain
frequency. My peripheral vision can detect the 120 Hz flicker
of florescent lights as well as flicker in computer monitors.
Drives me crazy.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

126. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 20:09:14 UTC
From: Mike Coslo <mcoslo@enoughalreadyadelphia.net>
Message-ID: <KjFJb.2585$uF6.1103823@news1.news.adelphia.net>
Source record: 102398

Cecil Moore wrote:

> hnmm wrote:
> Human eyes can detect the refresh rate flicker up to a certain
> frequency. My peripheral vision can detect the 120 Hz flicker
> of florescent lights as well as flicker in computer monitors.
> Drives me crazy.

The scan rate of most computer monitors is closely related to multiples of the scan rate of a NTSC television signal scan rate. This leads to a signal that is often twice the rate of NTSC scan. But since the monitors are not synchronized, the computer monitor will show lighter and darker areas depending on it's scan rate. Computer monitors will vary in their "look" on television, from a whole screen flicker to a darker colored bar that works it's way down the screen. This is all due to the scan rate frequencies.

- Mike KB3EIA -

127. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 20:13:43 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <XnFJb.49405$I07.151812@attbi_s53>
Source record: 102399

w4jle wrote:

>
>
> (They told me all I had to do to become a ham was to memorize these
> questions.)
>
>

SNIP That's absolutely TRUE if all you want is to "...become a ham..."

However, if you want to install and operate an efficient short wave
radio station you need to learn quite a bit!

DD, W1MCE

128. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 20:15:08 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040103151508.26331.00002016@mb-m15.aol.com>
Source record: 102400

>
>This is a S+N/N problem, not propagation. It is not like the magnetic
>pole is sucking signals into the ground. What the pole IS attracting
>is the ionic flow from the sun's emissions which create a plasma of
>noise.
>
>73's
>Richard Clark, KB7QHC
>
>

On 160 and 80 during disturbed conditions (aurora, etc.) signals are skewed by as much as 90 deg from their short path directions. So it is not sucking but blowing signals away from the disturbed region. Maybe sucking too, I haven't been up there to see it. It is not just noise problem.
Some outrageous propagation stuff is in my old article at
http://members.aol.com/ve3bmv/bmvpropagation.htm

Yuri, K3BU, VE3BMV

129. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 20:38:29 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <9LFJb.49578$I07.153955@attbi_s53>
Source record: 102401

Mark
I do believe that where the feed point is will make all the difference in
the world. A similar feed point up in the air but feeding colinear verticals
even tho they may be truncated will blow that thought away!
Regards
Art

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0401021533.762aac0c@posting.google.com...
> Richard Clark <kb7qhc@comcast.net> wrote in message
> >
> > No doubt you were "prevented." They couldn't hear you!
>
> I would tend to believe this account. Small vertical antennas next to
> the ground with no radials, will be just a tad better than a dummy
> load on that band. MK

130. Re: horzloopant/Belton ham?????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 20:55:20 UTC
From: tad danley <nospam@atsbcglobal.net>
Message-ID: <3FF72C3A.6020407@atsbcglobal.net>
Source record: 102402

Dale Parfitt wrote:

> <lorentzsonci@lycos.com> wrote in message
> news:q626vvsavo315a3du512v28iq8uptcl13e@4ax.com...
>
>>I am looking for a ham operator, that I bought a two meter horz
>>groundplane bigwheel antenna from several years ago, at Belton
>>Texas. He built both two/440mhz antennas. I 'think' he lived in Dallas
>>and just came down to Belton for the hamfest. Would like to get back in
>>touch,if possible, to purchase another two meter, like the one I have.
>> thanks in advance. 73
>>"remove 'z' from email address
>
>
> Believe you are talking about a ham from Oklahoma who is blatantly copying
> antennas from M Square, Olde Antena Lab and Par Electronics. Go to The Olde
> Antenna Lab in Colorado W6OAL- and support the guy that put the intelligence
> and energy into the big wheel design.
>
> Dale W4OP

Or go to Par Electronics for one of their Omniangle loop antennas. They
work great! http://www.parelectronics.com/index.htm

Good luck and 73,

--
* Do NOT use Reply *

Reply to K3TD via contesting dot com

Tad, K3TD

131. tower shunt feed for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 21:00:30 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <vvebbj9pcg4pb8@corp.supernews.com>
Source record: 102403

Greetings,

The ON4UN book has a good section on this subject. Nice charts and graphs to get an idea of where to find the best feed point etc. Unfortunately he doesn't discuss the effect of tower guy wires.

My tower, 110 ft Rohn 25G with 5 sets of guys. The guy wires are un-insulated and grounded at bottom using braid and ground rod. The top set of wires are of course about 120 ft long each. Have Force 12 C-4S on top with 10 ft of mast; about 4 ft extra mast above beam - poor planning on my part. :)

Any hints on how to model this? Easiest app to use for this etc would also be appreciated.

I've been told one can use an antenna analyzer, like mfj 259b, to find match point. Is a good way?

Thanks,
Jim - ku5s
--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.

132. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 21:15:51 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <biGJb.213249$8y1.750188@attbi_s52>
Source record: 102404

Keven Matthews wrote:

> I recently moved my shack from an upstairs room to downstairs, much closer
> to the garden and antennas.

SNIPPED

Kevin, there have been numerous responses to your original post. Let me be an Elmer for a short moment.

An example of antenna resonance and VSWR follows.

In my mobile I have a resonant 40 meter Hamstick. Resonance means there is NO Reactance in the antenna impedance. My antenna analyzer indicates approximately 12 + j0 ohms at 7.225 MHz. This is almost a 5:1 VSWR and that's what a meter indicates. Now, I added an ICOM AH-4 automatic antenna tuner at the antenna. The antenna is still 12 + j0 ohms but the tuner transforms the impedance to 50 + j0 ohms. So, the VSWR from the antenna/tuner to the 706, approximately 16 feet of coax, is now approximately 1:1.

Since the length of coax in your installation changes the measured VSWR, the coax is part of the antenna system and is radiating. So, you need to isolate the coax from the antenna. There are several ways to accomplish this. The most direct way is to make a coil of coax about 4 to 6 inches diameter and having 8 to 10 turns and install it directly at the base of the antenna. If you have a ground radial system make sure the coax is underneath [lower] than the radial system. Finally, install some clamp on ferrites, available from Radio Shack for less than $10, at the 1/4 and 1/2 wavelength on the coax from the antenna feedpoint.

Hopefully this will clean up the RF on the coax.

With a vertical antenna a reasonable VSWR at antenna resonance should be somewhere between 1.5:1 and 2.0:1.

Deacon Dave, W1MCE

133. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 21:18:42 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt7bjk$3dqe$1@news3.infoave.net>
Source record: 102405

Well said Sir!

Even the "appliance operators" of old had to know how the appliance worked.

Were I the FCC, your first transmitter and receiver would be built from scratch and a minimum of 25 CW contacts confirmed before the use of a purchased rig would be allowed.

Next no one would be permitted to apply for extra class without 5 years experience and 250 confirmed contacts.Also participation in a public service capacity, (i.e. traffic net, weather warning net, charity races etc) and have elemered 5 new hams.

I have a friend that has an extra and has never been on the air. He took the exams at a hamfest just to see if he could pass them. He said he studied the question pools for a couple of days on-line. He spent 20 years in the Navy as a Chief Radioman, so the code was a joke for him.

"Dave Shrader" <david.shrader@comcast.net> wrote in message news:XnFJb.49405$I07.151812@attbi_s53...
> w4jle wrote:
>
> > >
> > > (They told me all I had to do to become a ham was to memorize these
> > > questions.)
> > >
> > >
>
> SNIP That's absolutely TRUE if all you want is to "...become a ham..."
>
> However, if you want to install and operate an efficient short wave
> radio station you need to learn quite a bit!
>
> DD, W1MCE
>

134. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 21:23:21 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <dpGJb.213287$8y1.750818@attbi_s52>
Source record: 102406

Another option. I use a 17 meter hamstick and a remote auto tune Tuner, ICOM AH-4, in my mobile and cover 6 through 40 meters with it. Forty meters is down about 1 S unit from a 40 meter Hamstick but it works.

So, solution would be to use a mobile antenna, eg Hamstick; a remote tuner, AH-4 or equivalent; and a counterpoise.

If you need everything from scratch it should cost about $250 [mostly for the AH-4]. If the LDGZ100 is remotable then you have a $50 solution.

Deacon Dave, W1MCE

Ken Bessler wrote:

> I live on the 3rd floor of an apartment building. I just got permission
> to put up a vertical antenna on the roof with 1 restriction - the antenna
> can't be more than 10 feet tall.
> SNIP

135. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 21:45:20 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <vvedvhqde7be22@corp.supernews.com>
Source record: 102407

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
news:bt7bjk$3dqe$1@news3.infoave.net...
> Well said Sir!
>
> Even the "appliance operators" of old had to know how the appliance
worked.
>
> Were I the FCC, your first transmitter and receiver would be built from
> scratch and a minimum of 25 CW contacts confirmed before the use of a
> purchased rig would be allowed.

Careful, one of the local Ham "Channelmasters" will dub you a
CBPlusser for using the term "contact". It's a pet peeve of his.

Harold Burton
KD5SAK

136. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 21:51:33 UTC
From: richardharrison@webtv.net
Message-ID: <8943-3FF73965-152@storefull-2314.public.lawson.webtv.net>
Source record: 102409

Richard Clark wrote:
"The "earliest high frequency antennas" were in fact BCB."

Yes, but not in Ed Laport`s book. Ed`s book covers LF, MF, and HF. Ed as Chief Engineer of RCA International was most interested in RCA`s maritime service, radiograms, shortwave broadcast, and radio relay services. These were conducted above 1700 KHz. Ed observes that HF propagation is a statistical business, as the ionosphere is always in flux. Ed gives guidance in using the NBS Central Radio Propagation Lab publications, hardly the advice of someone stuck in low gear.

Ed gives some of the most complete information to be found on horizontal rhombics and rhombic arrays, hardly the advice of someone treating the use of low frequencies.

Richard Clark wrote: "And guess what, they (earliest high frequency antennas) are still Vertical antennas.

I agree that 1.7 MHz is medium wave as the break is often chosen as 3MHz. I also agree that MW broadcasting antennas are universally vertically polarized.

The primary service area of a MW broadcast station is defined by the FCC as the area well served by the ground wave. Of course vertical polarized antennas are used because horizontal polarization produces no ground wave.

Art Unwin started this thread it seems because he faulted a vertical antenna for not having a 100-mile range using low power.

The vertical has a null overhead almost guaranteeing no short-hop sky wave.
Low power obviates ground wave DX.

To make an evening sky wave trip of 100 miles at 160 meters, Art needs an antenna with a lot of high-angle radiation, 60 or 70-degrees more or less to use the ionosphere for short skip, or he needs enough effective power to punch a signal through along the ground.

A horizontal dipole could provide the high-angle radiation for the sky wave.

A vertical antenna could provide the ground wave signal which only needs enough power to work day or night.

A 1/4-wave vertical antenna can produce an unattenuated field strength at the earth`s surface of about 195 mV/m at one mile. At 100 miles, the field strength is 1%, or about 2 mV/m.. Depending on the soil

conductivity, the actual signal reaching a receiver at 100 miles is likely much less than the unattenuated value. In a quiet location, not much signal is needed.

Best regards, Richard Harrison, KB5WZI

137. Re: Keeping moisture out of 9913 type coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 22:00:25 UTC
From: Stilz <stilz@attglobal.net>
Message-ID: <3FF73B79.C823C273@attglobal.net>
Source record: 102408
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.space

Ron wrote:
>
> On Wed, 31 Dec 2003 02:51:26 +0000, Dave Woolf wrote:
>
<snipped>

>
> IMHO: Take a close look at Times Microwave cables, I think it's a better
> products than the equivalent Beldon.
>
> Ron

I agree. Not to sound like an ad for Times Microwave but IMHO the stuff
is great and well worth the additional cost. I first started using it
for S band and above. Today, it's the only type I got installed
anywhere.

Mike

KG4RRH

138. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 22:09:14 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bt7eib$3fef$1@news3.infoave.net>
Source record: 102410

Just like I had some "newby" attempt to chastise me on a 2 meter repeater
for using "handle". He told me that that word was only used on 11 meters.

I had to admit, I did use it on 11 meters when it was a ham band. But thanks
for the lesson Good Buddy!

"Harold Burton" <hwburton@cableone.net> wrote in message
news:vvedvhqde7be22@corp.supernews.com...
>
> "w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
> news:bt7bjk$3dqe$1@news3.infoave.net...
> > Well said Sir!
> >
> > Even the "appliance operators" of old had to know how the appliance
> worked.
> >
> > Were I the FCC, your first transmitter and receiver would be built from
> > scratch and a minimum of 25 CW contacts confirmed before the use of a
> > purchased rig would be allowed.
>
> Careful, one of the local Ham "Channelmasters" will dub you a
> CBPlusser for using the term "contact". It's a pet peeve of his.
>
> Harold Burton
> KD5SAK
>
>

139. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 22:11:39 UTC
From: Vaughn Combs <n2bha@arrl.net>
Message-ID: <v6HJb.2096$Dq1.1671@twister.nyroc.rr.com>
Source record: 102411
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi Richard,

If this helps both my XYL and I will be in your debt ;-)

So I should solder a shielded copper wire to the near end (aka the feed point but on the other side of the insulator --- near the house), let it run down the side of the house (about 22 to 25 feet down) and then to a ground rod? Then connect both the wire from the point where the new ground wire attaches and the wire (formerly the feedline) that connects to the "long" wire to the balun. Then its on into the house and the tuner via RG-8. Correct?

What do I connect to the ground lugs on the tuner and rig? The inefficient RF ground wire that I have now? That wire currently goes to a ground strip that has 1/4 wave length radials that were cut for each band running through the attic and an additional wire that is attached to a pipe that I found in the attic that is a plumbing drain pipe vent.

BTW, would there be any advantage to using other than 1:1 for the current balun? Any recommendations for the balun? I have seen some that can be made simply from coax.

I hope that I am not being a pain but this RFI prob is a bugger and it would be REALLY nice to squash this one. It is bugging the XYL quite a bit and it limits my operating time ;-)

Also, the ground loop that you are referring to would be current in the shield (or in my case the outer skin of the copper wire ;-) coming through the feed line and into the equipment. From there it is possibly getting into electrical ground through the power supply?

Again, Many thanks for your help and 73,

Vaughn, N2BHA

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:n95evvsf1lv8ogao5rrcnrq2fn7t1gb7ce@4ax.com...
> On Sat, 03 Jan 2004 18:38:59 GMT, "Vaughn Combs" <n2bha@arrl.net>
> wrote:
>
> >I have a few questions and I thought that this may be the group that
could
> >help. I have a nice sized backyard and would like to construct an antenna
> >that would give me good performance on 80-10m bands.
> >
> >The convenient dimensions would put a support (far end) at either 92 feet

> >from the back of the house (support exists that is about 15-20 feet up)
or
> >120 feet from the back of the house (mast anchored to the other side of a
> >shed could easily be installed. Or a more inconvenient support could be
> >erected up to 300 feet out (no support buildings) at the absolute far end
of
> >the property. The width of the property as seen looking out the back
window
> >is about 65 feet (no supports existing on either side).
> >
> >Special circumstances and constraints:
> >
> >-- No tall trees on the property.
> >
> >-- Attic shack (attic window is probably about 25 feet up). Need to keep
to
> >the attic.
> >
> >-- Cable run from back of house to operating position within the attic
would
> >be approximately 25 feet
> >
> >-- MUST eliminate RFI in the shack and house.
> >
> >My current setup is an end-fed longwire that works well on all bands
except
> >40m (rig shuts down as I am dipping the SWR to almost 1:1 ;-). I threw
up
> >the wire as winter was upon me. I have been off the air for almost 10
years
> >and REALLY wanted to get on the air again.
> >
> >While the longwire is performing quite well with the exception of 40m I
am
> >getting a ton of RF in the shack and it is blanking out TVs and creating
> >loud humming in speakers with 100W from the XMTR. I realize that this is
> >most likely due to the fact that I have inefficient RF ground and I have
cut
> >and run radial at 1/4 wave for each band and ran them under the eaves up
> >here in the attic. This has not solved the problem. I am friendly with
all
> >of my neighbors and have visited them and did testing on the bands with
them
> >on the phone. They are not experiencing any problems. My wife, while
> >understanding, would REALLY like the problem to go away ;-)
> >
> >My main goal is to build an antenna that will solve the aforementioned
RFI
> >problem and that will provide good performance given my constraints.
> >

> >Any ideas would be GREATLY appreciated.
> >
> >Many Thanks and 73,
> >Vaughn
> >N2BHA
> >
>
> Hi Vaughn,
>
> Your first shot is probably your best shot. You should drop a line
> from the near end antenna anchor point directly down to a ground and
> rely on a tuner to make up the differences. From the anchor point
> (where both wires are broke out) install a 1:1 Current Balun (Choke)
> between these points and the transmission line back to your rig to
> eliminate some of your noise into the house, and to get rid of the 40M
> instability (a classic symptom of Common Mode whose cure is in the
> Choke). The "ground" lead will radiate, but that is inconsequential.
> You may also experience a ground loop with it in parallel to your
> rig's source of ground.
>
> This is the blind-side of many hams who forget that long ground wires
> have impedance and thus become miserable grounds for RF. Unless you
> work battery operation without a floating charger, you WILL have this
> second path to ground (the 'trons will find their own way, even if it
> isn't obvious to you). I always run battery with a float charger
> through an 1:1 isolation transformer to kill Mains borne noise; and
> whenever I experience ground loops, I simply disconnect the charger.
>
> 73's
> Richard Clark, KB7QHC

140. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 22:19:49 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <bt7f64$3h3ee$1@ID-175933.news.uni-berlin.de>
Source record: 102412

Note that well-engineered broadcast stations do not accept ANY significant affect of the length of their transmission line(s) on the SWR/impedance match of their antenna system, as seen by the transmitter.

Greatest antenna system efficiency and least stress on the transmission hardware are achieved when transmission line impedance is matched to antenna input impedance. When that condition exists then the length of the transmission line is unimportant except for the power lost due to transmission line attenuation, and the cost to use the length and type of transmission line selected.

The match of the antenna input to its input transmission line is a function of their design, AND the installation environment. The physical environment near the antenna can change its input impedance from the assumed value, and create an impedance mismatch with a transmission line selected to match the input impedance assumed for the antenna.

This is usually corrected by an impedance-matching network installed at the junction of the antenna and its input transmission line. Virtually every AM, FM and TV broadcast antenna in the US has some means of adjusting the match between the antenna and its input line to optimise system SWR.

Impedance adjustments can be done at the input end of the transmission line to the antenna, but will be more narrow-band. Trimming the length of the main transmission line is another approach, but again, is more frequency-sensitive than adjusting the match directly at the antenna input connector.

RF

Visit http://rfry.org for FM broadcast RF system papers.

"Dave Shrader" <david.shrader@comcast.net> wrote in message news:5bzJb.113315$VB2.290693@attbi_s51...
> Kevin, the resonance of the antenna is determined by the length of the
> antenna! It is not related to the VSWR!!!
>
> If you are using VSWR as an indicator of resonance it is meaningless!
>
> Since your VSWR is changing with length of Coax, I suspect you have RF
> on the braid of the coax. Install a series of Chokes or ferrites.
>
> W1MCE
>
> Keven Matthews wrote:

> SNIP
> The SWR was pretty good across the band. Regardless I started my
> > evening doing a tidy job with some of that nice 5DFB japanese coax all
ready
> > for the following day. Guess what ? I put on the nice new cable and
plugs
> > and the antenna is no longer anywhere near resonant on 80M. So why am I
> > getting a better result with a long length of still coiled cable sitting
on
> > my patio rather that a much shorter brand new piece.
>
> SNIP
>

141. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 22:39:53 UTC
From: zigouille <zigouilleNOSPAMS@hamlogs.net>
Message-ID: <bt9sm4qmm1@news-reader4.wanadoo.fr>
Source record: 102358

"Keven Matthews" <keven@tiscali.co.uk> a crit dans le message de news:
3ff61b79_2@mk-nntp-2.news.uk.tiscali.com...
> I recently moved my shack from an upstairs room to downstairs, much
closer
> to the garden and antennas. All the antennas previously had a long run of
> coax to the old shack. The obvious thing was to have a nice new short
run
> of coax to my HF vertical which is now only 15' away. So I cut the coax
and
> since then the antenna is no longer resonant on 40 Metres. Also this week
I
> was putting up a new HF wire antenna, it was getting dark and raining by
the
> time I was hoisting it up but so I could just have a listen that night a
> grabbed an old (15 years) large coiled up of quantity RG213 coax
complete
> with rotten oxydized pl259 plugs on each end which had just sat on the
> garage wall for years. I just slung the coil down and plugged in at each
> end. The plugs looked so rotten it was shameful but it pitch dark by
then!
> However The SWR was pretty good across the band. Regardless I started my
> evening doing a tidy job with some of that nice 5DFB japanese coax all
ready
> for the following day. Guess what ? I put on the nice new cable and
plugs
> and the antenna is no longer anywhere near resonant on 80M. So why am I
> getting a better result with a long length of still coiled cable sitting
on
> my patio rather that a much shorter brand new piece. Please could some
one
> explain to me if the coax length does matter, it has certainly never been
a
> problem for me in the past on VHF and Six but I am new to HF frequencies.
> If you do need to have a certain size run, what can you do with the cable
if
> you phisically dont need it ?
>
>
> Many Thanks & 73 for 2004
>
> Keven G7UUD
>
>

Hello and happy new year.

It would always be necessary to tune the coaxial feeder
to the frequency of work.

For your problem it is necessary :

To measure the ros in one 1/2 length of cable feeder.
To tune the coaxial fededer with the frequency of work
on multiple of one 1/2 wavelength.
[Certain vertical antenna (as 5/8 lambda) have necessarily
to have 1 wavelength of cable feeder at least].
To control the ros and connect your installation.

Although it is it, value read in one 1/2 longuer of wave is
the same that that read to all the multiple of 1/2 lamda (3 or 10.5 lamda
for example).

Good luck

GG, amateur of radio for 19 years
zigouille@hamlogs.net

142. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 22:43:44 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <1ahevvcueu5k46bdo81uffms5uhsv48egi@4ax.com>
Source record: 102413

On Sat, 03 Jan 2004 20:09:14 GMT, Mike Coslo
<mcoslo@enoughalreadyadelphia.net> wrote:

>Cecil Moore wrote:
>
>> hnmm wrote:
>> Human eyes can detect the refresh rate flicker up to a certain
>> frequency. My peripheral vision can detect the 120 Hz flicker
>> of florescent lights as well as flicker in computer monitors.
>> Drives me crazy.
>
>The scan rate of most computer monitors is closely related to multiples
>of the scan rate of a NTSC television signal scan rate. This leads to a
>signal that is often twice the rate of NTSC scan. But since the monitors
>are not synchronized, the computer monitor will show lighter and darker
>areas depending on it's scan rate. Computer monitors will vary in their
>"look" on television, from a whole screen flicker to a darker colored
>bar that works it's way down the screen. This is all due to the scan
>rate frequencies.
>
Yes, the exception would be if the monitors and the TV camera are
synchronized, as might be done with the news set.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

143. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 23:26:38 UTC
From: jgboyles@aol.com
Message-ID: <20040103182638.15398.00002453@mb-m04.aol.com>
Source record: 102414

>Low SWR for
>the
>Wrong Reasons".
>
>==========
>Should be required reading for all hams.

Why? ;-)
73 Gary N4AST

144. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 23:28:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dchevvgqm05smp670v30vke17g20m8b3ld@4ax.com>
Source record: 102415
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Sat, 03 Jan 2004 22:11:39 GMT, "Vaughn Combs" <n2bha@arrl.net>
wrote:

>Hi Richard,
>
>If this helps both my XYL and I will be in your debt ;-)

It comes with the usual expectation of your first born....
>
>So I should solder a shielded copper wire to the near end (aka the feed
>point but on the other side of the insulator --- near the house), let it run
>down the side of the house (about 22 to 25 feet down) and then to a ground
>rod? Then connect both the wire from the point where the new ground wire
>attaches and the wire (formerly the feedline) that connects to the "long"
>wire to the balun. Then its on into the house and the tuner via RG-8.
>Correct?

Yup. That is what I was describing, but it could work dangling (with
a sealed, insulated end that is mechanically tied down; however, this
is not anymore efficient as the floating wires along your rafters,
merely different).

View with fixed font:
BalUn longwire
rig --- tuner ant ---OOOOO-----------------------------
rig --- tuner gnd ---OOOOO-+
| |
| | drop
| |
----- -----
--- ---
- -

Ground loop issues arise due to there being two paths with a
significant distance (in wavelength) between them (from the +
down, through ground, and back up to the rig) and an impedance between
(the BalUn which serves this purpose by design). This usually comes
about when the ham shack is elevated, and still has some form of
ground return that is an appreciable distance (in wavelength,
basically more than 0.1 wavelength) from true ground.

The rig ground may be deliberate, or it may be passive through metal
connections and continuity with the power supply which in turn
inherits it from the wall socket. Even if there is no safety ground
from the wall socket, there is still a capacitive coupling in the

wiring to fulfill the mission (and 40/80M probably plays hell with the
VCR).
>
>What do I connect to the ground lugs on the tuner and rig? The inefficient
>RF ground wire that I have now? That wire currently goes to a ground strip
>that has 1/4 wave length radials that were cut for each band running through
>the attic and an additional wire that is attached to a pipe that I found in
>the attic that is a plumbing drain pipe vent.

This may still be a viable option. Don't discard anything, simply
isolate one or all and experiment (it's the name of the game).

>
>BTW, would there be any advantage to using other than 1:1 for the current
>balun? Any recommendations for the balun? I have seen some that can be made
>simply from coax.

Simple coax chokes work just as effectively. Half a dozen to eight
turns of six to eight inch turns will be adequate for 40-15M, you may
need to experiment with a few more turns outside of this. Current
BalUns are simply Ferrite donuts put over a 1 foot length of RG-52
coax (one or a couple dozen donuts). The same thing can be achieved
with a large torus with four or five turns of coax through the center
(if its big enough). This is square law time, so four turns equals 16
donuts. Stacking two large toroids with 3 turns each would substitute
(or maybe three with three turns).

Using ferrite makes for a smaller device that works over a larger span
of frequencies, but winding air wounds can be tested immediately at no
more cost than the cable already handy.
>
>I hope that I am not being a pain but this RFI prob is a bugger and it would
>be REALLY nice to squash this one. It is bugging the XYL quite a bit and it
>limits my operating time ;-)
>
>Also, the ground loop that you are referring to would be current in the
>shield (or in my case the outer skin of the copper wire ;-) coming through
>the feed line and into the equipment. From there it is possibly getting into
>electrical ground through the power supply?
>
>Again, Many thanks for your help and 73,
>
>Vaughn, N2BHA
>
Hi Vaughn,

I've described the ground loop above. Isolating it means "busting"
ground somewhere. I use a battery. Voila! Opening any path does
just as well, but you have a dangling radiator somewhere (like the
drop). This may help, or it may change nothing. RFI problems are
unique to every situation and having your shack up high is the major
contributor, but to keep peace in the family try to limit RF exposure

to the end of the pipe (the purpose of the choke).

The choke inhibits RF from traveling back (conduction) into your shack (but your rafter mounted "radials" contribute RF exposure through radiation). You might try wrapping your power supply AC leads through a ferrite (or use a split core). This is choking your rig from going into the House AC. If you do this, take care to observe ALL connections to the rig. Do you have a packet connection to the rig from a computer? This is another path to ground, Choke it!!! Do you have a modem on the computer? Ditto. Computer Display? Ditto. A powered microphone? Ditto. The shack is a hydra of wires all heading to ground eventually and all it takes is one - and sometimes it melts.

There are three forms of power transfer: Conduction, Radiation, and Convection. Clearly convection is out as we are not heating soup. Conduction comes through wire, and radiation through the air. Your problems (as for most) usually comes by virtue of shared paths in the AC distribution and this is a conduction issue. If you move your rig's power supply to another wall socket ON A DIFFERENT BREAKER, you might solve one problem (and discover a new one). Use an extension cord (choke it) to experiment with this possibility. Having the antenna feed point close to the house brings about the possibility of radiation coupling. Move it (the choke point) away from the house. Remember this is square law time too and with each doubling, you quarter your exposure.

73's
Richard Clark, KB7QHC

145. Re: tower shunt feed for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 23:31:41 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FF750DD.E5C4AB8E@cwis.net>
Source record: 102416

Why not model it exactly how it is? Plot the coordinates,
of the elements, crank the 'knob' and see what comes out. Can
you use an antenna analyzer? I would think that you could.
'Doc

146. Re: tower shunt feed for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-03 23:43:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t2kevv4q6sis31gberqlgc4cdd25ufpb9b@4ax.com>
Source record: 102417

On Sat, 3 Jan 2004 15:00:30 -0600, "J Tabor" <denews@taborsoft.com>
wrote:

>Greetings,
>
>The ON4UN book has a good section on this subject. Nice charts and graphs to
>get an idea of where to find the best feed point etc. Unfortunately he
>doesn't discuss the effect of tower guy wires.
>
>My tower, 110 ft Rohn 25G with 5 sets of guys. The guy wires are
>un-insulated and grounded at bottom using braid and ground rod. The top set
>of wires are of course about 120 ft long each. Have Force 12 C-4S on top
>with 10 ft of mast; about 4 ft extra mast above beam - poor planning on my
>part. :)
>
>Any hints on how to model this? Easiest app to use for this etc would also
>be appreciated.
>
>I've been told one can use an antenna analyzer, like mfj 259b, to find match
>point. Is a good way?
>
>Thanks,
>Jim - ku5s

Hi Jim,

I've modeled smaller towers than this that would load up to 160M. It
conforms to NORDs or NOLs except in one significant respect: the
conductive guys. However, I have modeled along that line too, but
just with one set of guys.

To model it as you describe, build it with a conductive wire
completing the guy anchors back to the tower (as this is how the NORDs
or NOLs are implemented). I don't think a gamma match should elevate
above the first set of guys.

My guess is that it is going to resonate at a very low frequency, well
below 160M. But that would simply be the first resonance. The
overall height will dominate the pattern and elevation lobes.

73's
Richard Clark, KB7QHC

147. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 00:29:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0bmevvg0n2j9a71u2fedr1krcf6br3hhef@4ax.com>
Source record: 102418

On Sat, 3 Jan 2004 15:51:33 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Richard Clark wrote:
>"The "earliest high frequency antennas" were in fact BCB."
>
>Yes, but not in Ed Laport`s book. Ed`s book covers LF, MF, and HF. Ed as
>Chief Engineer of RCA International was most interested in RCA`s
>maritime service, radiograms, shortwave broadcast, and radio relay
>services. These were conducted above 1700 KHz.

However, his observation was a historical one, not a current (at the
time of printing) one as evidenced by his stating that things changed.

snip
>Art Unwin started this thread it seems because he faulted a vertical
>antenna for not having a 100-mile range using low power.
>
>The vertical has a null overhead almost guaranteeing no short-hop sky
>wave.
>Low power obviates ground wave DX.

This is far from true and again relies on HF, not MF observations.
You don't have to go very deep into your buddy's "Radio Propagation
Handbook" (Pete Saveskie). Chapter one, Ground Waves, employs a very
simple scenario with an 1/8th wave vertical radiator monitored out a
distance of 240 KM to no apparent difficulty in Ham terms, much less
FCC coverage issues. The discussion of the necessity for horizontal
antennas at this greater distance is notable by its vacuum in the
text.

My own study of Ground properties through a variety of references has
found there is quite a characteristic shift, a knee in the data, at
the 3 MHz frequency that clearly differentiates propagation at 160M
from that of 80M.

Shortwave stations clearly have an economic necessity to optimize
within their bands of operation. BCB stations are likewise
constrained. The two exhibit very different antenna solutions. It
follows that 160M more closely conforms to BCB than Shortwave for all
reasons considered.
>
>To make an evening sky wave trip of 100 miles at 160 meters, Art needs
>an antenna with a lot of high-angle radiation, 60 or 70-degrees more or
>less to use the ionosphere for short skip, or he needs enough effective
>power to punch a signal through along the ground.

>
>A horizontal dipole could provide the high-angle radiation for the sky
>wave.

And yet experience and reporting to this matter has shown abysmal
results. The shortfall of expectation with regard to actuality lies
in the Ground.

73's
Richard Clark, KB7QHC

148. Re: current/inductance discusion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 00:37:40 UTC
From: pez <studentant@hotmail.com>
Message-ID: <bt7n94$hf7$1@nic.grnet.gr>
Source record: 102319

Dear Mr. Peter O. Brackett,

But of course, we

...
|
| don't forget to thank the, often vilified,
| US Taxpayers for their unwavering support of
| the development of all of the free computer program implementations of
| circuit-theoretic,
| field-theoretic and QED models with the computer programs called SPICE, NEC
| and other QED kinda stuff...
|
...

although, I am afraid, we have also to add,
somewhere in the beginning of an everlasting list,
at least those who supported Pythagoras of Samos:

http://lpf.ai.mit.edu/Patents/knuth-to-pto.txt

And so on...

d;^)

But,
apart from the fact of this slightest omission,
I have already forwarded your remarkable message.

Sincerely yours,

pez
SV7BAX
TheDAG

P.S.
Excuse me,
I do not believe it is really needed,
but just in case:

http://www-gap.dcs.st-and.ac.uk/~history/Mathematicians/Pythagoras.html

149. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 01:06:34 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <bt7ot2$3s01v$1@ID-213023.news.uni-berlin.de>
Source record: 102320

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:rl3evvo8suhf2q9qf3luch0a14c0hqri5a@4ax.com...
> >
> Hi Ken,
>
> Research the experience of Mobile HF designs. You will need to invest
> in the equivalent metal presented by a car (reasonably done through a
> ground mat of similar foot print) to act as the ground/reference which
> allows these antennas to work.
>
> It has been long established that a resonating coil about 8 feet up
> this permitted 10 feet, with a large top hat built out at the top
> would be the most efficient. This is the optimal solution to the
> restrictions you have been placed in.
>
> As for your wrap around antenna; you show a clever intuition, and you
> may wish to use this 10 foot allowance to build it out, at that height
> instead of snug against the building. My hunch is that it won't make
> much difference (don't take down the original), but it gives you room
> to experiment if the building super will allow you 3 or 4 points
> elevated that same 10 feet. A smaller loop may aid in those bands
> that are just not performing. If you can get away with 2 points, you
> can look to top loaded verticals that go beyond the top hat (in other
> words, a top hat that requires extensive mechanical support).
>
> 73's
> Richard Clark, KB7QHC

After thinking a bit I'm leaning on the idea of just putting up a
10' mast and using it to support a Van Gordon all bander. My
building is 54x40 and 25' tall so by my math the 135 foot all
bander would overhang on the ground just a bit. There are trees
on the corners of the building so that's where the ends of the
antenna would go.

My current antenna would stay for comparison reasons.

Now - on my 153'2" dipole, I feed it with 12' of rg58 and a
9 turn, 2-5/8" dia coax loop at the feedpoint. Should I
duplicate this feedpoint for the 450 ohm ladder line of the
Van Gordon antenna or should I buy a balun? And if I buy
a balun, what ratio?

Thanks for your help, OM!

73's de Ken KG0WX

150. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 01:38:12 UTC
From: Mike <m*150@lycos.co.uk>
Message-ID: <98KJb.16386$FN.2318@newsfep4-winn.server.ntli.net>
Source record: 102321

Hello,

Put a 10ft pole up and take a wire off each side of the building to form a giant inverted V. Miniature aerials give tiny performance.

151. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 01:42:30 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <acKJb.51720$xX.290427@attbi_s02>
Source record: 102323

Let me clarify this statement so that we are on the same page.
I was hearing several conversations going on the same frequency. Those conversing obviously were oblivious to other users on the frequency because of propergation or the peculiarities of my antenna.
I refrained from entering into conversation with the local group because by joining one group would have caused problems for other groups on the same frequency.
On reflection it would appear that the horizontal dipole gave low angle TOA all the way thru 90 degrees.
Thus this is inferior to a vertical that captures the low angles and descriminates against the high angles plus inferior to a poor vertical that discriminates against low angles.
This just shows how much ground effect controls the
verticals but only to a much lower extent on horizontally polarised signals with respect to selectivity.With respect to noise it does not affect me to much in the comparison because of the use of a Faraday shield.
Regards
Art
"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0401010557.5f2754cf@posting.google.com...
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:<bsvsmk$e4v$1@sparta.btinternet.com>...
> > Incoming radiation angles can be obtained by geometric calculation.
> > Pythagorus and all that, taking earth curvature, height of ionospheric
> > layers, number of hops, etc, etc, into account.
> >
> >
> > Then point your receiving beam into it, if it is adjustable in the
vertical
> > plane. Very non-critical. Antenna apperture angles in the vertical
plane
> > are extremely broad.
> >
> >
> > The stuff often comes in from more than one angle. Interference between
the
> > different paths causes fading and distortion. An antenna will collect
from
> > all vertical angles regardles of elevation.
> > ----
> > Reg
> >
> > ==========
>

>
>
> Interesting thing happened with the antenna last night.
> Had the antenna in the vertical position close to ground (it is a
> truncated co linear dipole) And was prevented from joining the local
> group because of multiple QSOs on the same frequency!
>
> Art

152. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 01:44:10 UTC
From: Keven Matthews <keven@tiscali.co.uk>
Message-ID: <3ff76eed_2@mk-nntp-2.news.uk.tiscali.com>
Source record: 102322

Thanks to all the many respondents to my question! The good news is, that following the general concensus that the coax length does not matter I pursued the shorter length again today, resited the wire antenna (G30JV 80plus2) to another location, and the analyer I have now indicates a distinct improvement. What was throwing me was some stuff I read somewhere about using odd halfwave length multiples for coax runs - but perhaps this was another myth!

Thanks Guys

Keven

153. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 01:58:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ujrevvoj1c3k0r2slkvn27e6dp62u0c4q9@4ax.com>
Source record: 102324

On Sat, 3 Jan 2004 18:06:34 -0700, "Ken Bessler"
<kg0wxIHATESPAM@yahoo.com> wrote:

>
>After thinking a bit I'm leaning on the idea of just putting up a
>10' mast and using it to support a Van Gordon all bander. My
>building is 54x40 and 25' tall so by my math the 135 foot all
>bander would overhang on the ground just a bit. There are trees
>on the corners of the building so that's where the ends of the
>antenna would go.
>
>My current antenna would stay for comparison reasons.
>
>Now - on my 153'2" dipole, I feed it with 12' of rg58 and a
>9 turn, 2-5/8" dia coax loop at the feedpoint. Should I
>duplicate this feedpoint for the 450 ohm ladder line of the
>Van Gordon antenna or should I buy a balun? And if I buy
>a balun, what ratio?

Hi Ken,

I don't see much advantage of one over the other, much less getting
into the benefits of BalUns and ladder line.

Any particular ratio only works if you actually observe that ratio
between line and load or source. This is unlikely if you are using
the antenna as an all bander (a distinction that is suspect in spite
of testimonials). A true all bander comes with issues, and knowing
those issues and responding to them allows all band operation.
However, you can achieve that status with a simple hank of wire, less
the appelation. In other words, you already have an all bander in
your dipole. It couldn't possibly work worse (or better) than the Van
Gordon except through choice of placement. In that regard, higher is
better, and it would seem you have plenty of length already.

IF it doesn't work (because it is whole wave on one band or the other)
you simply pair up a second in parallel (literally at the feed point)
and move on. The sad fact of it is, once you have a decent dipole up
(yours comes close enough), you have to invest many, many more dollars
and step up to a tower and beam to get to the next tier of
performance. Let's face it, few if any have towers supporting 80M
beams (and not many more with full-sized 40M beams).

On the other hand, 12 feet away from the feed point is awfully close.
This means you are literally part of the loss of the system (like a
hamster in a microwave). On the plus side, any high SWR would hardly

offer much loss over such a small run. However, such proximity often leads to Common Mode issues (does your system refuse to tune some bands? Even to folding back power?).

73's
Richard Clark, KB7QHC

154. Why does this work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 05:45:31 UTC
From: H Davis <hdavis@ntsource.com>
Message-ID: <vvfa5341vk0se0@corp.supernews.com>
Source record: 102325

I'm really new to SWL and obviously have a lot to learn. So I'd like to try to understand what I need to receive what radios like the Grundig 400PE and Sangean 803A are capable of receiving. I use both, but find the Sangean more "fun" because it has a tuning knob. There is something about a tuning knob that feels better than a button to go to a frequency. Perhaps its because its more like that old radio I used to play around with when I was a kid back in the early 50's.

In any case, since its winter here in Illinois I have put off any attempt to put an antenna outdoors. The situation is this: aluminum sided home, shack in the basement about four feet from my laptop computer. About 15 years ago I ran an RG59U cable from the attic to the basement; its been unused for most of those years, but recently I ran a 40 foot length of #14 single stranded, insulated copper wire lengthwise in the attic. It is stapled to the rafters about three feet down from the peak. I soldered the center conductor of the RG59U to the end of the copper wire. The cable runs down 25 feet vertically to the basement and is connected to the whip antennas of the radio with an alligator clip, since the radios do not accept the same plug. (The wire in the attic runs essentially NNE to SSW and the downlead cable is soldered to the NNE end of the wire. the SSE end takes a right angle with the last 6 feet of wire. So it takes the following shape:

```
|
|----------------------------------- (Downlead
side) NNE
```

This setup left me able to receive more than I could with about 25 feet of multistrand, speaker wire tossed out the basement window and anchored up in a tree next to the window, but it is noisy. Lots of static, but turning off various things (computers, fluorescent lights, dimmers, etc.) doesn't seem to reduce the noise. I noticed that when attaching the antenna to the whip, I was getting pretty good reception and less noise when the alligator clip was about two inches from the whip. For some reason I decided to wrap about 50 loops of the #14 insulated wire around a piece of 1 1/2 inch PVC pipe and bare one end of the coil for attachment to the alligator clips. I slipped the coil over the whip, attached the clip to the bare portion of the wire forming the coil and I get pretty decent reception with less noise that with the clip attached directly to the whip. Clipping the alligators to the insulation on the end of the coil I get even less noise, and still pretty decent reception.

Why does this work? Is there anything else I can do with the current setup to improve things? Until spring arrives I'm not even going to think about an outside antenna. What mistakes did I make? How is the current setup going to limit reception on various bands? How will it improve reception relative to

just the whip (which is kind of useless in the basement, anyway)?

Did I do anything right? Did I do anything wrong? I see SWL as essentially experimenting with antenna configurations. Is this a valid way to look at it?

Harlan

155. Re: Mod Wanted: Icom 706 on 11 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 05:54:28 UTC
From: Sarge <sarge43@ev1.net>
Message-ID: <vvfakrhm0isa96@corp.supernews.com>
Source record: 102326

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:3ff50f72_7@corp.newsgroups.com...
> In Louisiana, it is illegal for a husband and wife to engage
> in oral sex in the privacy of their bedroom.

Well now *that* sucks !! No wait, I guess it doesn't suck. Not in lousyanna
anyways.

156. Re: Need an antenna (I hope)?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 06:05:09 UTC
From: Sarge <sarge43@ev1.net>
Message-ID: <vvfb8soag86f0c@corp.supernews.com>
Source record: 102327

"Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
news:C96Jb.569$Pn5.58@bignews5.bellsouth.net...
> Would you please visit my website for your new mobile
> HF antenna!! You will find reviews on Eham for this
> antenna and its builder. I build quality screwdriver style
> antennas and single band antennas on as requested basis.
> For example, if you only work 75 meters (there are some that only do 75
and
> 40), then I will build that. If you
> want an all-band conventional mobile (using taps), I can
> build that (similar to the now-defunct GLA Texas Bugcatcher.
>
> Visit www.qls.net/k4kwh

Now how come when I follow that, it takes me to
http://partner47.firehunt.com/ ????????

157. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 06:08:16 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <bt8ake$4a11l$1@ID-213023.news.uni-berlin.de>
Source record: 102328

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:ujrevvoj1c3k0r2slkvn27e6dp62u0c4q9@4ax.com...
>
> Hi Ken,
>
> I don't see much advantage of one over the other, much less getting
> into the benefits of BalUns and ladder line.
>
> Any particular ratio only works if you actually observe that ratio
> between line and load or source. This is unlikely if you are using
> the antenna as an all bander (a distinction that is suspect in spite
> of testimonials). A true all bander comes with issues, and knowing
> those issues and responding to them allows all band operation.
> However, you can achieve that status with a simple hank of wire, less
> the appelation. In other words, you already have an all bander in
> your dipole. It couldn't possibly work worse (or better) than the Van
> Gordon except through choice of placement. In that regard, higher is
> better, and it would seem you have plenty of length already.
>
> IF it doesn't work (because it is whole wave on one band or the other)
> you simply pair up a second in parallel (literally at the feed point)
> and move on. The sad fact of it is, once you have a decent dipole up
> (yours comes close enough), you have to invest many, many more dollars
> and step up to a tower and beam to get to the next tier of
> performance. Let's face it, few if any have towers supporting 80M
> beams (and not many more with full-sized 40M beams).
>
> On the other hand, 12 feet away from the feed point is awfully close.
> This means you are literally part of the loss of the system (like a
> hamster in a microwave). On the plus side, any high SWR would hardly
> offer much loss over such a small run. However, such proximity often
> leads to Common Mode issues (does your system refuse to tune some
> bands? Even to folding back power?).
>
> 73's
> Richard Clark, KB7QHC

The current antenna will tune up quickly and easily on all bands
from 160-6 meters. I was having some instability problems untill
I tied all equipment grounds to the copper baseboard heater pipe.

Before I did that I would see SWR changes when touching my
rig, my SWR meter, my tuner etc. Not now. I know the hot water
pipe is not supposed to be a good ground but this is working
extremely well.

So, how do you suggest I handle the transition between my coax run from the tuner and the 450 ohm ladder line?

73's de Ken KG0WX

158. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 06:29:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a1cfvvop758p3uf2v28lr5funglooa91nn@4ax.com>
Source record: 102329

On Sat, 3 Jan 2004 23:08:16 -0700, "Ken Bessler"
<kg0wxIHATESPAM@yahoo.com> wrote:

>
>The current antenna will tune up quickly and easily on all bands
>from 160-6 meters. I was having some instability problems untill
>I tied all equipment grounds to the copper baseboard heater pipe.
>
>Before I did that I would see SWR changes when touching my
>rig, my SWR meter, my tuner etc. Not now. I know the hot water
>pipe is not supposed to be a good ground but this is working
>extremely well.
>
>So, how do you suggest I handle the transition between my coax
>run from the tuner and the 450 ohm ladder line?
>
>73's de Ken KG0WX

Hi Ken,

Well, gee, I don't know how to put this, but I'd leave things alone.
There is almost nothing you can do that would be
measureable/noticeable from the other end in all likelihood -- unless
everything worked only because your antenna was nothing more than an
aircooled resistor. You could double your output and it would barely
nudge their S-meter.

Use an ordinary 1:1 Current BalUn (to answer your last question). Any
other value (one feels compelled to suggest 1:9) would be just as bad
over much of those frequencies as the 1:1 (except different
frequencies). The upshot of using a Current BalUn is the benefit of
its choking action and a 1:9 may not exhibit that as well; especially
if it is a Voltage BalUn construction.

73's
Richard Clark, KB7QHC

159. Re: Why does this work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 06:38:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1pcfvvoo7ijj24b0m242971p45sboghf83@4ax.com>
Source record: 102330

On Sat, 3 Jan 2004 23:45:31 -0600, "H Davis" <hdavis@(no
spam)ntsource.com> wrote:

Hi Harlan,

This seems to be a significant clue:
>since the radios do not accept the same plug.

snip

>This setup left me able to receive more than I could with about 25 feet of
>multistrand, speaker wire tossed out the basement window and anchored up in
>a tree next to the window, but it is noisy. Lots of static, but turning off
>various things (computers, fluorescent lights, dimmers, etc.) doesn't seem
>to reduce the noise. I noticed that when attaching the antenna to the whip,
>I was getting pretty good reception and less noise when the alligator clip
>was about two inches from the whip. For some reason I decided to wrap about
>50 loops of the #14 insulated wire around a piece of 1 1/2 inch PVC pipe
>and bare one end of the coil for attachment to the alligator clips. I
>slipped the coil over the whip, attached the clip to the bare portion of the
>wire forming the coil and I get pretty decent reception with less noise that
>with the clip attached directly to the whip. Clipping the alligators to the
>insulation on the end of the coil I get even less noise, and still pretty
>decent reception.
>
>Why does this work? Is there anything else I can do with the current setup
>to improve things? Until spring arrives I'm not even going to think about an
>outside antenna. What mistakes did I make? How is the current setup going to
>limit reception on various bands? How will it improve reception relative to
>just the whip (which is kind of useless in the basement, anyway)?
>
>Did I do anything right? Did I do anything wrong? I see SWL as essentially
>experimenting with antenna configurations. Is this a valid way to look at
>it?
>
>Harlan
>
You are on the right path. However, as to the "clue" above. I am not
familiar with the specific models, but I have every suspicion that the
whip antenna is for FM only, and AM/SW is achieved through either a
ferrite bar antenna inside, or an external connection, or both. Your
windings are not really coupling into the whip but rather this
internal antenna, and they are still too far apart. However, barring
a more detailed description, this is just a guess.

Do your receivers have any kind of jack that is not audio or power? Chances are that is an external antenna connection, especially if there is a switch nearby. If so, that is the proper way in with your wire antenna and it will make a significant difference. I say this because it sounds like the noise is from your having the gain set all the way up, and what would be strong signals are competing with weak noise. The reason why the strong signals are not booming in, is you haven't made a good connection. The other possible answer is that you are in fact deep in a very noisy environment and your antenna is doing the best it can.

73's
Richard Clark, KB7QHC

160. Re: Need an antenna (I hope)?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 06:48:28 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <vvfdq24obhkk89@corp.supernews.com>
Source record: 102331

There is a mistype in the address. Enter " http://www.gsl.net/k4kwh ".

Sarge wrote:
> "Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
> news:C96Jb.569$Pn5.58@bignews5.bellsouth.net...
>
>>Would you please visit my website for your new mobile
>>HF antenna!! You will find reviews on Eham for this
>>antenna and its builder. I build quality screwdriver style
>>antennas and single band antennas on as requested basis.
>>For example, if you only work 75 meters (there are some that only do 75
>
> and
>
>>40), then I will build that. If you
>>want an all-band conventional mobile (using taps), I can
>>build that (similar to the now-defunct GLA Texas Bugcatcher.
>>
>>Visit www.qls.net/k4kwh
>
>
> Now how come when I follow that, it takes me to
> http://partner47.firehunt.com/ ????????
>
>

161. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 07:03:11 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401032303.566d828d@posting.google.com>
Source record: 102332

" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:<9LFJb.49578$I07.153955@attbi_s53>...
> Mark
> I do believe that where the feed point is will make all the difference in
> the world. A similar feed point up in the air but feeding colinear verticals
> even tho they may be truncated will blow that thought away!
> Regards
> Art

I doubt it. I use fairly large antennas on that band and still don't
come close to many of the "big strappers" on that band. I've got a
full size inv L, about 45 ft vertical, and also a 42 ft top loaded
vertical. The top loading consists of four 60 ft wires.
Current up the vertical section is nearly constant on that antenna. I
bet that simple antenna will truncate your short collinear verticals
in any direction, and even it's nothing to really get excited about.
MK

162. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 07:21:18 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401032321.58da5a86@posting.google.com>
Source record: 102333

" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:<acKJb.51720$xX.290427@attbi_s02>...
> Let me clarify this statement so that we are on the same page.

> On reflection it would appear that the horizontal dipole gave low angle TOA
> all the way thru 90 degrees.

??? 90 degrees is straight up. NO low horizontal dipole will have very
good low angle performance on that band. Trust me. I used a full size
Z dipole for two years,"01-02" and ended up yanking it down. Good for
close in local stuff. Pitiful for lower angle far off stuff.

> Thus this is inferior to a vertical that captures the low angles and
> descriminates against the high angles plus inferior to a poor vertical that
> discriminates against low angles.

How is it inferior? It's just different. You choose the antenna to
match the path you want to work. If you are going to talk 100-150
miles away, yes a low dipole will work pretty well, maybe the best.
But so will an inv L, or even my top loaded vertical will usually do
fine also. The L will usually be the better of the verticals close if
it's up and down sky wave, as it has more horizontal componant. My
loaded vertical has an overhead null.
Even still, many times, even just 200 miles away, my loaded vertical
is better than the L. Actually, the loaded vertical beats the L
probably 90% of the time. Even fairly close. Farther off paths? The
dipoles I had were poor at best. The vertical is the only way to go in
that case for a simple antenna. Remember, my dipole was at maybe 35-40
ft. Thats like a 80m dipole at 15-20 ft off the ground. Will be poor
for long distance use. Of course, using ground wave, the loaded
vertical is king of the hill here...

> This just shows how much ground effect controls the
> verticals but only to a much lower extent on horizontally polarised signals
> with respect to selectivity.

??
With respect to noise it does not affect me to
> much in the comparison because of the use of a Faraday shield.

?? Shield for what? You? MK

163. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 07:46:34 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401032346.6d01dcd5@posting.google.com>
Source record: 102334

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message news:<bBDJb.48697$I07.144572@attbi_s53>...
> Here's my experience.
>
> On transmit:
>
> 160 meters: 90 foot vertical is 20 dB better than 60 ft high inv vee
> 80 meters: 60 foot vertical is 10 dB better than 60 ft high inv vee
> 40 meters: 30 foot vertical is equal to 90 ft high inv vee

Sounds about right, but try the 90 ft dipole against a 1/4 wave ground plane mounted say at 55-60 ft. :) "That makes the overall height about the same.. I bet the vertical trounces the dipole.

> 20 meters: 30 foot vertical is beaten by 90 ft high inv vee about 25% of
> the time
I usually prefer the dipole on this band...

> 15 meters and up: Any dipole trounces any vertical.

Have to disagree here though. I've had numerous 10m verticals that beat any dipole I tried on most low angles...Same for 17m, when I used an elevated 5/8 ground plane at 36 ft. Dogged all my other antennas.
>
> On receive:
>
> 160 and 80 meters: A low dipole trounces any vertical

Not sure on this one...I assume you see this due to a better s/n ratio with the dipole...Overall, I don't totally agree with this one though...I think it's reciprical. Which ever transmits best, usually receives best in what I see here.
I often receive using the vertical. But I don't have any fancy receive antennas like beverages, or small phased verticals, etc..
> 40 meters and up: best receive antenna is best transmit antenna

I agree..Actually, I think this is really the case on any band, not counting any s/n problems with a certain antenna on receive. I'm a firm believer in reciprical operation. Only in a very few cases will that not pan out. No matter what band I'm on, I usually transmit on the antenna that receives the best. Very, very rarely is it not also the best transmit antenna. MK

164. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 07:56:27 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <btgfvv0ce5a6ch4ht4nsacfd51p76bf25t@4ax.com>
Source record: 102335

On Sat, 03 Jan 2004 10:38:53 -0800, hnmm <hxx@private.com> wrote:

I think the question was a bit different than the answers I've been seeing.

IF I understand the question, he wants to know why when a monitor is shown on TV it flickers, but not when actually looking at the monitor.

When video taping, TV sets AND computer monitors will flicker. It's due to the differences in scan rates on the monitors compared to the camera.

Even when they are running the same frequency there will still be the appearance of either a rolling image, or a moving bar as the scan will not be perfectly in sync between the camera and the monitor. If they are the same frequency the dark line on the screen will not move. It's rare to see one where the monitor and camera sync pulses are ... well...in sync. When that happens the TV screen looks normal.

The image on a computer monitor and a TV screen consist of a bunch of almost horizontal lines. With a TV set the image starts at the top and is drawn every other line, one at a time. When the line reaches the bottom it has completed one frame. It returns to the top and draws in the lines that were skipped in the first frame. This noticeably reduces the perceived flicker.

Computer screens may use the same method or they may draw the entire image on one pass. Their much higher sweep rate may allow them to do so without a noticeable flicker.

As to regular monitor flicker, I only notice it occasionally in my peripheral vision, but not when viewed directly. Part of that is due to the persistence of the phosphor, but with TV sets and monitors the persistence is very short. OTOH viewing a TV screen under fluorescent lighting can really accentuate the flicker.

You should see a moving image on a longer persistence phosphor. They smear....

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>.

165. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 09:01:03 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401040003.7d5f9870@posting.google.com>
Source record: 102336

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<23584-3FF65A0D-89@storefull-2314.public.lawson.webtv.net>...
> Mark Keith wrote:
> "For DX transmitting on the lower bands, vertical polarization is the
> best way to go."
>
> In some cases. If that were always the case, why do commercial shortwave
> stations all use horizontal polarization for both point-to-point service
> and broadcasting?

I don't know. I've wondered the same thing.
>
> During my years in shortwave broadcasting, I never saw a single
> vertically polarized antenna used for HF transmitting.

I believe you.
>
> My experience is not unique. E.A. Laport was Chief Engineer, RCA
> International Division of Radio Corporation of America (RCA). For many
> years RCA was the largest short-wave communications organization in the
> world. In his book, "Radio Antenna Engineering", Ed Laport says:
>
> "The earliest high-frequency beam antennas used vertical polarization,
> but subsequent evolution has caused the almost universal use of
> horizontal polarization. There may be a reversion to vertical
> polarization in the future for certain applications."

This seems to be more of a physical concern rather than which
polarization is actually the best over a certain path, for a certain
freq. There is no doubt in my mind vertical is almost always better
than horizontal for low freq's for long, low angle paths. Myself, I
think this applies all the way up to 40m or so.
My dipole on 40m was only 35-40 ft. Not a 1/2 wave up. But not once
did it ever beat my vertical long haul, or even semi long haul. It has
trouble beating my 10 ft tall vertical on my car. I tried this many
times from here to Fla. The mobile beat it every time we tried. And my
mobile is a low efficiency peanut whistle compared to the full size
elevated ground plane I ran on 40m. It's also nearly ground mounted.
MK

166. Re: Why does this work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 09:24:30 UTC
From: H Davis <hdavis@ntsource.com>
Message-ID: <vvfn0026rpjv40@corp.supernews.com>
Source record: 102337

Richard:

Perhaps I led you astray with that comment regarding different plugs. I should have said that both radios have external antenna plugs, but they require different types of plugs. The Grundig takes a 1/8 inch mono plug such as the type usually used for mono earphones. The Sangean takes a different plug from what I understand, so I decided to compromise and use the clip and attach the external antenna via the alligator clip rather than try to switch plugs each time I want to switch radios. By the way, both radios use the whip and/or the external antenna for SW. If I don't have access to an external antenna, both radios require the full extension of the whip for SW.

Richard, in reading all I can about the subject of using alligator clips or plugs for the external antenna, I got the impression that the clip would yield a good connection if you couldn't use the plug. I think what you are telling me is that isn't the case. Of course, it stands to reasons that if the radios have a provision for plugging in an external antenna, that would be the ideal connection.

Thanks for commenting, Richard; this is a great forum to learn from others.

Harlan

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:1pcfvvoo7ijj24b0m242971p45sboghf83@4ax.com...
> On Sat, 3 Jan 2004 23:45:31 -0600, "H Davis" <hdavis@(no
> spam)ntsource.com> wrote:
>
> Hi Harlan,
>
> This seems to be a significant clue:
> >since the radios do not accept the same plug.
>
> You are on the right path. However, as to the "clue" above. I am not
> familiar with the specific models, but I have every suspicion that the
> whip antenna is for FM only, and AM/SW is achieved through either a
> ferrite bar antenna inside, or an external connection, or both. Your
> windings are not really coupling into the whip but rather this
> internal antenna, and they are still too far apart. However, barring
> a more detailed description, this is just a guess.
>
> Do your receivers have any kind of jack that is not audio or power?
> Chances are that is an external antenna connection, especially if
> there is a switch nearby. If so, that is the proper way in with your
> wire antenna and it will make a significant difference. I say this

> because it sounds like the noise is from your having the gain set all
> the way up, and what would be strong signals are competing with weak
> noise. The reason why the strong signals are not booming in, is you
> haven't made a good connection. The other possible answer is that you
> are in fact deep in a very noisy environment and your antenna is doing
> the best it can.
>
> 73's
> Richard Clark, KB7QHC

167. To greatly condense this thread -

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 11:42:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bt8u75$oe8$1@hercules.btinternet.com>
Source record: 102338

When both antennas have about the same height at their centres -

A half-wave vertical is better at low elevation angles.

A half-wave horizontal dipole is better at high elevation angles.

There's nothing at all to choose between them at 45 degrees.

For each of the following factors allow a predicting uncertainty of +/- 1/2
S-unit -

MF, HF, sun-spot cycle numbers, day, night, summer, winter, aurora, N/S,
E/W, giro-magnetic disturbances, high-rise city centers, arid deserts, the
oceans, mountain ranges, prairies, pampas, steppes, tropics, arctic
regions, G5RV's and unsociable noisy neighbours.

Use RMS summation of predicting uncertainties.

If you are using Roy's S-meter calibration multiply by 2. ;o)

And that just about sums it up.

Reg, G4FGQ

--
....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:g83evvchnirl9oeakk91lijuki5i8122eu@4ax.com...
> On Sat, 3 Jan 2004 10:35:51 -0600 (CST), richardharrison@webtv.net
> (Richard Harrison) wrote:
>
> > If the signal must take a great circle route over
> >the North Polar region, problems increase.
>
> Hi Richard,
>
> This is a S+N/N problem, not propagation. It is not like the magnetic
> pole is sucking signals into the ground. What the pole IS attracting
> is the ionic flow from the sun's emissions which create a plasma of
> noise.
>
> 73's
> Richard Clark, KB7QHC

168. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 13:41:25 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <9KUJb.122763$VB2.344872@attbi_s51>
Source record: 102339

Harold Burton wrote:

SNIP
>
> Careful, one of the local Ham "Channelmasters" will dub you a
> CBPlusser for using the term "contact". It's a pet peeve of his.
>
> Harold Burton
> KD5SAK
>
>

It may be a 'pet peeve' but what do you call:

"T40E 599 TU de W1MCE"

For me it's a contact! It is not a QSO. It is not a Rag Chew. It's the minimum requirement for a DXCC type CONTACT.

BTW: is it Harold Burton or HALLIBURTON?? Hmmm ... ???

169. Re: Why does this work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 15:43:13 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <6pcgvv4ui8n0kl7v1qvinuf4dpiktej1bc@4ax.com>
Source record: 102340

On Sun, 4 Jan 2004 03:24:30 -0600, "H Davis" <hdavis@(no
spam)ntsource.com> wrote:

>Richard:
>
>Perhaps I led you astray with that comment regarding different plugs. I
>should have said that both radios have external antenna plugs, but they
>require different types of plugs. The Grundig takes a 1/8 inch mono plug
>such as the type usually used for mono earphones. The Sangean takes a
>different plug from what I understand,

Why don't you go to Radio Shack, and get the two kinds of plugs you
need, and then attach both to the center conductor of your coax, using
a little hook-up wire and solder. Then just plug the antenna directly
into each radio. You seem to be getting too many variables from
clipping onto your whip.

It's also possible the proper plugs came with each radio, no need to
go to Radio shack.

Learning about plugs is a part of SWLing :-)

Bob
k5qwg

170. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 15:51:34 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <bt9cq4$4li35$1@ID-213023.news.uni-berlin.de>
Source record: 102341

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:a1cfvvop758p3uf2v28lr5funglooa91nn@4ax.com...

> Hi Ken,
>
> Well, gee, I don't know how to put this, but I'd leave things alone.
> There is almost nothing you can do that would be
> measureable/noticeable from the other end in all likelihood -- unless
> everything worked only because your antenna was nothing more than an
> aircooled resistor. You could double your output and it would barely
> nudge their S-meter.
>
> Use an ordinary 1:1 Current BalUn (to answer your last question). Any
> other value (one feels compelled to suggest 1:9) would be just as bad
> over much of those frequencies as the 1:1 (except different
> frequencies). The upshot of using a Current BalUn is the benefit of
> its choking action and a 1:9 may not exhibit that as well; especially
> if it is a Voltage BalUn construction.
>
> 73's
> Richard Clark, KB7QHC

Thanks for the info, Richard - I went to Eham.net and read the
reviews on the all bander. Not all were good so I started looking
at the other reviews for ideas. Found the MFJ-1788 G5RV
antenna. I'm usually a bit suspicious about MFJ products but
this one got good reviews.

So, what do you think about the G5RV for my situation? The
apex would be at 35' and the ends would be about 20' The 34'
of ladder line would reach my window feedpoint just fine then
I could make a coax choke (MFJ says 10 turns @ 4-6" dia) and
then feed it to my LDG tuner. the coax run would be about 8'.

A note on choke construction - I use plastic forms to wind the
coax then glue the turns together with superglue and baking
soda. I only have two smooth plastic forms avaiable - a 2-5/8"
and a 5 inch. So, I could make a 10 turn, 5" dia choke for this
new antenna.

Your thoughts?

Ken KG0WX

171. Re: 40M+80M dual band delta loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 15:56:18 UTC
From: DXer <DXer@DXcentral.com>
Message-ID: <bt9d27$vb8@library1.airnews.net>
Source record: 102342

The apex of the triangle is at 50 ft on a telescoping mast and I feet the
bottom right corner for vertical polarization.

40m is flat across the entire band .. 80m is flat from 3.500 to about 3.700
...

The base is about 5 ft off the ground ...

/lee - k1nt

"Al - VA3KAI" <niittyma(no-spam)@sympatico.ca> wrote in message
news:VaZsb.14880$IK2.1132464@news20.bellglobal.com...
> Lee,
>
> Just curious, what do you feed it with and where (corner or side)? Also,
> what are the shapes? I'm amazed at the flat SWR!
>
> 73, Al
>
> "DXer" <DXer@DXcentral.com> wrote in message
> news:bovqpp$hek@library2.airnews.net...
> > I have a 40 meter loop inside my 80 meter loop and have been running it
> for
> > 3 years without any problems.
> >
> > Both antennas are flat (no SWR) and there appears to be little to no
> > interaction between the antennas.
> >
> > 73,
> >
> > Lee - K1NT
> >
> > <w4udx@bellsouth.net> wrote in message
> > news:g8Dob.3961$ns.3957@bignews4.bellsouth.net...
> > > Hi group,
> > > just wondering.... can I take a 40M delta loop and add an 80M dipole
to
> > it?
> > > Will there be interaction?
> > > SWR problems?
> > >
> > > Mark W4UDX
> > >
> > >
> >

> >
>
>

172. Re: Advice wanted:T-match Coax Balun for Yagi Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 15:59:59 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <55SdnYCHDcoapWWiRVn-sA@comcast.com>
Source record: 102343

Steve,

Are you doing a T match or a Beta match? I looked at a Hygain 6 m beam, and the shorting bars are set to 9-1/2 inches from the center. The driven element is insulated at the center, and the beta rod is connected to the boom at the center. The coax is connected to the driven element. As I understand it, in a real T match the coax is connected to the T rod, but it supposedly does not have as good an adjustment.

Tam/WB2TT
"Steve B." <eagle572REMOVE@REMOVEcomcast.net> wrote in message
news:Ksmdnamu3pz6lmqiRVn-hw@comcast.com...
> I have a 6 meter beam with "plumbers delight" construction. I have not
> been successful in making a 1/2 wave coax balun (T-match) get a proper
> impedance match at 50.125 MHz center frequency. The driven element is
> 0.625" Outside diameter. The T-bars have adjustable shorting straps for
> a max length of 14", with 3" spacing below the driven element.
>
> The balun is made of RG-142 Teflon-coax, and is 81 inches long. The
> velocity factor is 0.695, so the length is:
>
> 1/2 WaveLength (meters) = (150 * V)/F where F is in MHz.
>
> Thus, the half-wave coax would be (150*0.695)/50.125 in meters.
> Multiply by 39.37 inches per meter to get 81.8 inches for the coax length.
>
> Any ideas why this did not do the job? I checked the coax for
> opens/shorts and moved the T-bar shorting straps to no avail. The best
> SWR was no better than about 3:1, even after adjusting the length of the
> driven element.
>
> I tested the driven element (both by itself and installed on the beam)
> mounted on a temporary mast at about 10 feet to avoid most of the ground
> effect.
>
> Thanks,
> Steve Bell KJ7OG
>

173. Re: Why does this work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 16:55:43 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <jAXJb.21685$WQ3.1798@lakeread05>
Source record: 102344

"H Davis" <hdavis@(no spam)ntsource.com> wrote in message
news:vvfa5341vk0se0@corp.supernews.com...
> I'm really new to SWL and obviously have a lot to learn. So I'd like to
try
> to understand what I need to receive what radios like the Grundig 400PE
and
> Sangean 803A are capable of receiving.

For the Grundig, which I own one of, it is an amazing little radio, and the double-hetro design makes the receiver as wide-open a front end as possible to receive almost everything. The down side to the radio is that it is _easily_ overloaded with signals from any kind of antenna longer than the recommended 20' or so provided with the unit. I have found that the Grundig 400PE operated with it's stock whip antenna fom a second floor room will receive almost anything that the best receivers with any antenna can. Bear in mind it is a wide-open front end with _lots_ of noise, but it doesn't miss much either. I think that the Sangean has very similar characteristics and ablities. I suggest enjoying them both as they were designed, and not expecting any kind of external antenna design making a significant improvement on their performance.

Jack
Virginia Beach Va

174. AV-18VS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 17:36:28 UTC
From: paulalce <paulalce@m3pba.freeserve.co.uk>
Message-ID: <bt9iut$8cu$1@news7.svr.pol.co.uk>
Source record: 102345

Has anyone used the hygain AV-18VS.
if so what are your thoughts.
Cheers
paul
m3pba

175. Re: What Balun to use 1:1 or 4:1 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 17:37:13 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <mM2dnf1IWLHO0mWiRVn-vA@comcast.com>
Source record: 102346

"VE3PMK" <nospam@nospam.org> wrote in message
news:BC1BB276.5EA9%nospam@nospam.org...
what
> configuration calls for the 4:1, or even the 9:1 ??

Pat,
A 4:1 balun would be used in antennas with a 200 Ohm impedance. Examples are (some) beams with a Beta match, Log Periodics, and beams with multiple driven elements. It would also give a reasonable match to a folded dipole.

Tam/WB2TT

176. Re: Need an antenna (I hope)? OOOOOOPS TYPO

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 18:15:33 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <NJYJb.7293$vO5.1293@bignews6.bellsouth.net>
Source record: 102347

That should be www.qsl.net/k4kwh.

.....sorry

Jerry
"Sarge" <sarge43@ev1.net> wrote in message
news:vvfb8soag86f0c@corp.supernews.com...
>
> "Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
> news:C96Jb.569$Pn5.58@bignews5.bellsouth.net...
> > Would you please visit my website for your new mobile
> > HF antenna!! You will find reviews on Eham for this
> > antenna and its builder. I build quality screwdriver style
> > antennas and single band antennas on as requested basis.
> > For example, if you only work 75 meters (there are some that only do 75
> and
> > 40), then I will build that. If you
> > want an all-band conventional mobile (using taps), I can
> > build that (similar to the now-defunct GLA Texas Bugcatcher.
> >
> > Visit www.qls.net/k4kwh
>
> Now how come when I follow that, it takes me to
> http://partner47.firehunt.com/ ????????
>
>

177. Re: Need an antenna (I hope)?I Made a BOO BOO

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 18:17:12 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <jLYJb.7300$vO5.5017@bignews6.bellsouth.net>
Source record: 102348

Nope, it's a typo www.qsl.net/k4kwh

Jerry
"David G. Nagel" <nagel@core.com> wrote in message
news:vvfdq24obhkk89@corp.supernews.com...
> There is a mistype in the address. Enter " http://www.gsl.net/k4kwh ".
>
> Sarge wrote:
> > "Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
> > news:C96Jb.569$Pn5.58@bignews5.bellsouth.net...
> >
> >>Would you please visit my website for your new mobile
> >>HF antenna!! You will find reviews on Eham for this
> >>antenna and its builder. I build quality screwdriver style
> >>antennas and single band antennas on as requested basis.
> >>For example, if you only work 75 meters (there are some that only do 75
> >
> > and
> >
> >>40), then I will build that. If you
> >>want an all-band conventional mobile (using taps), I can
> >>build that (similar to the now-defunct GLA Texas Bugcatcher.
> >>
> >>Visit www.qls.net/k4kwh
> >
> >
> > Now how come when I follow that, it takes me to
> > http://partner47.firehunt.com/ ????????
> >
> >
>

178. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 18:29:14 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <EVYJb.17398$kK.14657@bignews3.bellsouth.net>
Source record: 102349

For my own take on it I would say

1) You are in the near field of the antenna

2) The fact that the coax is, by own admission "bad"
would indicate there is sumpin' is up as old ratty coax
can actually appear to be good by giving a false SWR
indication.

I think this is where CBers get that old "18 feet of coax" thing so many
believe firmly. The thing to do is to use the
shortest run of coax you can, set the antenna by adding or
removing length and keep the thing out of the way of nearby objects (people,
cars, towers, fuel tanks. If you
re-resonate the antenna and re-attach the shorter line, it shouldn't make
any difference.

Jerry
K4KWH
"Keven Matthews" <keven@tiscali.co.uk> wrote in message
news:3ff61b79_2@mk-nntp-2.news.uk.tiscali.com...
> I recently moved my shack from an upstairs room to downstairs, much
closer
> to the garden and antennas. All the antennas previously had a long run of
> coax to the old shack. The obvious thing was to have a nice new short
run
> of coax to my HF vertical which is now only 15' away. So I cut the coax
and
> since then the antenna is no longer resonant on 40 Metres. Also this week
I
> was putting up a new HF wire antenna, it was getting dark and raining by
the
> time I was hoisting it up but so I could just have a listen that night a
> grabbed an old (15 years) large coiled up of quantity RG213 coax
complete
> with rotten oxydized pl259 plugs on each end which had just sat on the
> garage wall for years. I just slung the coil down and plugged in at each
> end. The plugs looked so rotten it was shameful but it pitch dark by
then!
> However The SWR was pretty good across the band. Regardless I started my
> evening doing a tidy job with some of that nice 5DFB japanese coax all
ready
> for the following day. Guess what ? I put on the nice new cable and
plugs
> and the antenna is no longer anywhere near resonant on 80M. So why am I

> getting a better result with a long length of still coiled cable sitting
on
> my patio rather that a much shorter brand new piece. Please could some
one
> explain to me if the coax length does matter, it has certainly never been
a
> problem for me in the past on VHF and Six but I am new to HF frequencies.
> If you do need to have a certain size run, what can you do with the cable
if
> you phisically dont need it ?
>
>
> Many Thanks & 73 for 2004
>
> Keven G7UUD
>
>

179. Re: tower shunt feed for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 18:42:53 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <vvgnlhjrncvu17@corp.supernews.com>
Source record: 102350

Hi,

Thanks very much for the reply.

Jim - ku5s
--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.

180. Re: tower shunt feed for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 18:44:13 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <vvgno74halbk61@corp.supernews.com>
Source record: 102351

Howdy,

Thanks for the reply. I can of course aquire antenna analyzer and study
instructions. <G>

Regards,
Jim
--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.
"'Doc" <w5lz@cwis.net> wrote in message news:3FF750DD.E5C4AB8E@cwis.net...
> Why not model it exactly how it is? Plot the coordinates,
> of the elements, crank the 'knob' and see what comes out. Can
> you use an antenna analyzer? I would think that you could.
> 'Doc

181. Low budget in-house cellular repeater project questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 18:51:57 UTC
From: Mark Atanovich <m.atanovich@cox.net>
Message-ID: <ihZJb.26137$i55.12551@fed1read06>
Source record: 102352

Howdy,
I would like to get rid of my land phone line. The only thing keeping me from doing this is the relatively poor indoor reception on my cell phone (outdoors is just fine). I can't justify spending $700 for a powered repeater set-up, but since I get good outdoor reception, would it be possible to couple a dual frequency (800 & 1900 MHz) high gain (36 dbi) directional antenna directly to an indoor multi directional unit (both 50 Ohm impedance)? This would only cost a couple hundred bucks, but will it work in theory? Any advice or
other suggestions would be greatly appreciated.

Mark

182. Re: Opinions requested

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 18:59:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c7ngvvs3tod34h77buuq5soj0vp7n7qc13@4ax.com>
Source record: 102353

On Sun, 4 Jan 2004 08:51:34 -0700, "Ken Bessler"
<kg0wxIHATESPAM@yahoo.com> wrote:

>Thanks for the info, Richard - I went to Eham.net and read the
>reviews on the all bander. Not all were good so I started looking
>at the other reviews for ideas. Found the MFJ-1788 G5RV
>antenna. I'm usually a bit suspicious about MFJ products but
>this one got good reviews.
>
>So, what do you think about the G5RV for my situation? The
>apex would be at 35' and the ends would be about 20' The 34'
>of ladder line would reach my window feedpoint just fine then
>I could make a coax choke (MFJ says 10 turns @ 4-6" dia) and
>then feed it to my LDG tuner. the coax run would be about 8'.
>
>A note on choke construction - I use plastic forms to wind the
>coax then glue the turns together with superglue and baking
>soda. I only have two smooth plastic forms avaiable - a 2-5/8"
>and a 5 inch. So, I could make a 10 turn, 5" dia choke for this
>new antenna.
>
>Your thoughts?
>
>Ken KG0WX
>

Hi Ken,

Your recipe for a choke sounds quite suitable. Keep in mind all such designs are optimized somewhere and marginal elsewhere. What you've described will undoubtedly do the job, peaking in the 20-30M bands and tapering to each side. The fact of the matter is that few measure where their chokes resonate (thus providing the greatest isolation) or how much Q they exhibit. Usually, the proof of isolation is found in performance. That is, did it clear up transmissions getting into the home electronics? If it did, no one will care the line still radiates - unless such lax isolation fills in nulls you need in a pattern to kill neighboring noise or strong stations.

As for the G5RV. It was designed to a length to be suitably tuned in a majority of bands back in the stone age. Band plans have changed somewhat (WARC and all) to confound that claim. That aside, the combination of coax and ladder line was something of a marketing idea, you are just as well off by simply using ladder line all the way back to the tuner (or the BalUn heading into the tuner, make sure it is a

Current BalUn design, as the ones inside tuners are mickey mouse Voltage designs). So, having stripped away the trademark coax/ladder combo, you can progress to the next step and simply erect the highest longest dipole and be done with it. You are going to be doing a tune-up anyway, so having excess length draped through trees and limping ground ward has no inherent merit. It won't hurt that much either, but no magical properties will be observed through what we call "appelation gain" (that extra 3dB because the vendor put a name to it like G5RV).

A buddy of mine had the classic G5RV and it served suitably well (coming no where close to his beam where the bands overlapped) until one dark and stormy night when he encountered a higher than normal SWR against a lot of power. The BalUn rattled like a mariachi after that and the antenna was quite deaf.

73's
Richard Clark, KB7QHC

183. Re: current/inductance discusion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 19:08:45 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <1xZJb.23542$IM3.8965@newsread3.news.atl.earthlink.net>
Source record: 102354

Pez:

Heh, heh... thanks for your thoughtful additions to my comment.

It seems that the all suffering US Taxpayers stand on the backs of giants!

Best Regards for the New Year.

--
Peter K1PO
Indialantic By-the-Sea, FL.

"pez" <studentant@hotmail.com> wrote in message
news:bt7n94$hf7$1@nic.grnet.gr...
> Dear Mr. Peter O. Brackett,
>
> But of course, we
>
> ...
> |
> | don't forget to thank the, often vilified,
> | US Taxpayers for their unwavering support of
> | the development of all of the free computer program implementations of
> | circuit-theoretic,
> | field-theoretic and QED models with the computer programs called SPICE,
NEC
> | and other QED kinda stuff...
> |
> ...
>
> although, I am afraid, we have also to add,
> somewhere in the beginning of an everlasting list,
> at least those who supported Pythagoras of Samos:
>
> http://lpf.ai.mit.edu/Patents/knuth-to-pto.txt
>
> And so on...
>
> d;^)
>
> But,
> apart from the fact of this slightest omission,
> I have already forwarded your remarkable message.
>
> Sincerely yours,
>

> pez
> SV7BAX
> TheDAG
>
> P.S.
> Excuse me,
> I do not believe it is really needed,
> but just in case:
>
> http://www-gap.dcs.st-and.ac.uk/~history/Mathematicians/Pythagoras.html
>
>

184. Re: Why does this work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 19:11:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fpogvv8m4u1cjodsk7b954ju60l7aqpen9@4ax.com>
Source record: 102355

On Sun, 4 Jan 2004 03:24:30 -0600, "H Davis" <hdavis@(no
spam)ntsource.com> wrote:

>Richard:
>
>Perhaps I led you astray with that comment regarding different plugs. I
>should have said that both radios have external antenna plugs, but they
>require different types of plugs. The Grundig takes a 1/8 inch mono plug
>such as the type usually used for mono earphones. The Sangean takes a
>different plug from what I understand, so I decided to compromise and use
>the clip and attach the external antenna via the alligator clip rather than
>try to switch plugs each time I want to switch radios. By the way, both
>radios use the whip and/or the external antenna for SW. If I don't have
>access to an external antenna, both radios require the full extension of the
>whip for SW.

One question that is unanswered: is there a switch near either of
those input jacks? Might be labeled local/dx.
>
>Richard, in reading all I can about the subject of using alligator clips or
>plugs for the external antenna, I got the impression that the clip would
>yield a good connection if you couldn't use the plug. I think what you are
>telling me is that isn't the case. Of course, it stands to reasons that if
>the radios have a provision for plugging in an external antenna, that would
>be the ideal connection.
>
>Thanks for commenting, Richard; this is a great forum to learn from others.
>
>
>Harlan
>
Hi Harlan,

The variation of where you clip it to the whip suggests the whip is
not directly connected to the SW path (because it simply doesn't go
there, or this switch I have supposed, is in the wrong position, or
both).

Anyway, I will offer a list of stations I can get here, in Seattle,
that come in full tilt boogie. If you couldn't duplicate this
experience, you have a switch/path problem (and I doubt both sets
would suffer identically unless your wire was broken one foot from the
clip).

Anyway, in the form of a quote, my ad-hoc log:
>

>Our time 9 AM (1600 UT) for an hour
>on 11650 KHz (or 11.650 MHz)
>Radio Australia (noted by its interval signal of "Waltzing Matilda").
>
>10 AM (1700 UT)
>on 11710 KHz
>Japanese Language program
>
>10 AM (1700 UT)
>on 11750 KHz; 11795 KHz; 11945 KHz; 11995 KHz
>Far Eastern music mixed with other signals (less so at 11945)
>
>10 AM (1700 UT)
>on 11880 KHz
>Radio Australia
>
>10:30 AM (1730 UT)
>on 9505 KHz; 11970 KHz
>Swing music and talk about genetically modified corn in corn chips from Radio Japan (NHK)
>
>10:45 AM (1745 UT)
>on 17605 KHz
>French language program
>
>11 AM (1800 UT)
>on 17640 KHz
>Far Eastern music program
>
>11:30 AM (1830 UT)
>on 17705 KHz
>Spanish language program
>
>11:30 AM (1830 UT)
>on 17785 KHz
>French language program (probably VOA)
>
>12 PM (1900 UT)
>on 17860 KHz
>German language program (DW)
>
>12 PM (1900 UT)
>on 17870 KHz
>French language program (Radio Canada)
>
>12 PM (1900 UT)
>on 17895 KHz
>Mixed music program (VOA)
>
>12 PM (1900 UT)
>on 21590 KHz

>Interview program about helicopters (Radio Netherlands)
>
>12 :30 PM (1930 UT)
>on 117850 KHz
>Far eastern music
>
> ======== Now at a later time, in the evening here:
>
>8 PM (0300 UT)
>on 5950 KHz
>news in english from Radio Taiwan
>
>8 PM (0300 UT)
>on 5960 KHz
>Japanese language program (NHK)
>
>8 PM (0300 UT)
>on 5975 KHz
>health program from BBC
>
>8:30 PM (0330 UT)
>on 5950 KHz
>news in Spanish from BBC
>
>8:30 PM (0330 UT)
>on 9450 KHz
>program in Russian (possibly Radio Moscow or VOA)
>
>8:30 PM (0330 UT)
>on 9460 KHz
>program in mid eastern music
>
>8:30 PM (0330 UT)
>on 9575 KHz
>news in english for western pacific from VOA
>
>8:30 PM (0330 UT)
>on 9590 KHz; 9640 KHz
>news in German (CBC, Radio Canada)
>
>8:30 PM (0330 UT)
>on 9640 KHz
>program in German (possibly DW)
>

73's
Richard Clark, KB7QHC, WPE0EPH

185. Re: Why does this work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 19:20:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lcpgvv89s9f383peg7nfulrm3b7ijgbtca@4ax.com>
Source record: 102356

On Sun, 4 Jan 2004 11:55:43 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>The down side to the radio is that it is
>_easily_ overloaded with signals from any kind of antenna longer than the
>recommended 20' or so provided with the unit.

Hi Jack, Harlan,

This is very significant. I should have thought of this too.

This is the hidden sensitivity killer because a nearby AM stations's
signal going in these style of front end will develop AGC that
absolutely de-sensitizes the SW bands. You don't hear the signal at
the speaker, but the receiver hears it at the antenna (quite loud).

Put a cheap antenna tuner between your sets and the antenna to prevent
this. Or simply build a cheap high pass filter (antenna through cap
to set, AND with antenna through coil to ground). If you make the cap
variable, you can peak SW reception in a couple of bands. If you also
tap the coil, you can switch its value and peak in most bands (thus a
tuner). The tuner will short out the local power house that is
swamping your sets and allow the SW through to a more sensitive
condition. The cheapest, simplest (two or three control) Ham tuner
will do.

73's
Richard Clark, KB7QHC

186. Re: 40M+80M dual band delta loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 19:50:17 UTC
From: denton <denton@oregontrail.net>
Message-ID: <bt9qak$e55$1@news.oregontrail.net>
Source record: 102357

What does one use to provide impendence transformation(if needed) at
feedpoint for a dual or multiband loop antenna?
I have two...one cut for 20 meters that I wish to multiband and use
individual loops for each band from 20 thru 10 meters. Could I use a 2 to 1
balun at feedpoint to resolve the impendence match?
The second delta loop is top feed currently with twin lead...and had about
220 feet of wire in the loop. I would like to string in two more additonal
loops...one for 40 and one for 30 meters....
Currently both are fed with 450 ohm twin lead with a pair of old Johnson
Matchboxes.
"DXer" <DXer@DXcentral.com> wrote in message
news:bt9d27$vb8@library1.airnews.net...
> The apex of the triangle is at 50 ft on a telescoping mast and I feet the
> bottom right corner for vertical polarization.
>
> 40m is flat across the entire band .. 80m is flat from 3.500 to about
3.700
> ...
>
> The base is about 5 ft off the ground ...
>
> /lee - k1nt
>
> "Al - VA3KAI" <niittyma(no-spam)@sympatico.ca> wrote in message
> news:VaZsb.14880$IK2.1132464@news20.bellglobal.com...
> > Lee,
> >
> > Just curious, what do you feed it with and where (corner or side)?
Also,
> > what are the shapes? I'm amazed at the flat SWR!
> >
> > 73, Al
> >
> > "DXer" <DXer@DXcentral.com> wrote in message
> > news:bovqpp$hek@library2.airnews.net...
> > > I have a 40 meter loop inside my 80 meter loop and have been running
it
> > for
> > > 3 years without any problems.
> > >
> > > Both antennas are flat (no SWR) and there appears to be little to no
> > > interaction between the antennas.
> > >
> > > 73,

> > >
> > > Lee - K1NT
> > >
> > > <w4udx@bellsouth.net> wrote in message
> > > news:g8Dob.3961$ns.3957@bignews4.bellsouth.net...
> > > > Hi group,
> > > > just wondering.... can I take a 40M delta loop and add an 80M
dipole
> to
> > > > it?
> > > > Will there be interaction?
> > > > SWR problems?
> > > >
> > > > Mark W4UDX
> > > >
> > > >
> > > >
> > > >
> > >
> > >
> >
>

187. Re: Low budget in-house cellular repeater project questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 20:18:50 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <WJGdnR--k_Js5WWi4p2dnA@ctc.net>
Source record: 102359

> I would like to get rid of my land phone line. The only thing keeping me
> from doing this is the relatively poor indoor reception on my cell phone
> (outdoors is just fine). I can't justify spending $700 for a powered
> repeater set-up, but since I get good outdoor reception, would it be
> possible to couple a dual frequency (800 & 1900 MHz) high gain (36 dbi)
> directional antenna directly to an indoor multi directional unit (both 50
> Ohm impedance)? This would only cost a couple hundred bucks, but will it
> work in theory? Any advice or
> other suggestions would be greatly appreciated.

While passive repeaters are often used, what kind of antennas are you going
to use to get 36 dbi ?

188. Re: What should I start with?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 20:34:14 UTC
From: Volker Kerkhoff <volker@kadira-net.com>
Message-ID: <bt9t8j$c17$1@gateway.pa.homeip.net>
Source record: 102360

Reg Edwards wrote:
>>What do you think is the best equipment to start out as a ham?
>>
>
> Start at the begining.
>
> Get yourself a 200-feet reel of 18 awg enamelled copper wire, an empty
> toilet roll tube, a 500 pF variable capacitor, a germanium diode, a 470 pF
> capacitor, a pair of 4000-ohm headphones, a used 3-hole razor blade, and a
> dozen miniature alligator clips.
>
>
> You will never regret it!
That's a hell of a cool answer! Not only to a 10-Year-old, but also to an adult interested in the radio hobby. It really pays to get to know the basics and to spend some time on it.

I actually got into radio when my dad was doing SWL, but what really got me was when my uncle brought me a kit to build myself an AM receiver thet would work without a battery, and then expained to me how the thing worked. After that i've been through various stages of the radio hobby, SWL, Utility, Scanners, on and off through the years and seasons, and now I'll be going for my "B" license. Wish me sucess, I've only a couple months to learn before the exam, but my idea is to get the "B" (VHF/UHF) license first, and then go for the "C" (HF Restricted) in summer with a bit more of time.

189. Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 22:23:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bta3pb$2cb$1@hercules.btinternet.com>
Source record: 102361

[Copied from another newsgroup.]

While I'm in the mood, the following little calculation may assist in understanding what goes on in an antenna. Suppose we wish to know the radiating efficiency of a resonant half-wave dipole fed at its center.

When at exact resonance we are concerned only with pure resistances.

For calculating convenience, we assume the radiation resistance, Rrad, is uniformly distributed along the length of the wire and is 140 ohms which has been calculated from its dimensions. It only has two - Length and Diameter. But for a half-wave dipole it is always about 140 ohms. Wire diameter has a relatively small effect on Rrad.

Frequency, F = 10 MHz.
One wavelength = 300/F = 30 metres.
Overall dipole length L = 15 metres.
Copper wire diameter D = 2mm.

Calculate Rloss, the end-to-end wire loss resistance -

Rloss = 0.0833 * Sqrt(F) * Length / Diameter ohms, which takes skin effect with copper wire into account.

Rloss = 1.976 ohms.

Insofar as the current flow is concerned, the total resistance in the antenna wire is 140 + 1.976 = 141.976 ohms. But only Sqr(Amps) * Rloss watts is lost.

So antenna efficiency = (Power radiated) / (Power input) = Rrad / (Rrad + Rloss)

Effncy = 140 / (140 + 1.976) times 100 percent.

Effncy = 98.6 percent.

Note that we have taken care to place both the radiation and loss resistances at the same place in the system so that they can be properly compared. It is usual to locate the radiation resistance at the dipole centre as one lump when it then becomes 70 ohms. But a slightly different efficiency calculation is then needed to provide the same correct answer.

Almost certainly there will be an appreciably greater loss in the transmission line to the transmitter and in the coupling/impedance transforming coil and capacitor networks.

If you are interested in numerical quantities without tedious arithmetic, download in a few seconds one or two simple programs from the following

website and run immediately. Amuse yourself.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

190. Re: Need an antenna (I hope)?I Made a BOO BOO

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 22:47:51 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <vvh60vlvl8ae5a@corp.supernews.com>
Source record: 102362

Typo of a typo.... Sorry...

Dave

Jerry Oxendine wrote:
> Nope, it's a typo www.qsl.net/k4kwh
>
>
> Jerry
> "David G. Nagel" <nagel@core.com> wrote in message
> news:vvfdq24obhkk89@corp.supernews.com...
>
>>There is a mistype in the address. Enter " http://www.gsl.net/k4kwh ".
>>
>>Sarge wrote:
>>
>>>"Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
>>>news:C96Jb.569$Pn5.58@bignews5.bellsouth.net...
>>>
>>>
>>>>Would you please visit my website for your new mobile
>>>>HF antenna!! You will find reviews on Eham for this
>>>>antenna and its builder. I build quality screwdriver style
>>>>antennas and single band antennas on as requested basis.
>>>>For example, if you only work 75 meters (there are some that only do 75
>>>
>>>and
>>>
>>>
>>>>40), then I will build that. If you
>>>>want an all-band conventional mobile (using taps), I can
>>>>build that (similar to the now-defunct GLA Texas Bugcatcher.
>>>>
>>>>Visit www.qls.net/k4kwh
>>>
>>>
>>>Now how come when I follow that, it takes me to
>>>http://partner47.firehunt.com/ ????????
>>>
>>>
>>
>
>

191. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-04 22:53:30 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <KP0Kb.24103$IM3.7454@newsread3.news.atl.earthlink.net>
Source record: 102363

Reg:

[snip]
> For calculating convenience, we assume the radiation resistance, Rrad, is
> uniformly distributed along the length of the wire and is 140 ohms which
has
> been calculated from its dimensions. It only has two - Length and
> Diameter. But for a half-wave dipole it is always about 140 ohms. Wire
> diameter has a relatively small effect on Rrad.
[snip]

Reg, in your model, is your *assumption* "for calculating convenience" that
radiation
resistance is uniformly distributed along the antenna structure, i.e. the
transmission line
that represents the antenna in your model, supported by any theory or is it
just a
mathematical *fit* to the data?

For example, one could *assume* literally any analytic distribution of
radiation resistance
along an antenna's length, for instance sinusoidal, catenary, exponential,
triangular, etc...
and come up with a value/function for that particular distribution that has
the equivalent
effect of a lumped value placed at the antenna feedpoint. What is so unique
about uniform?

Why do you think *uniform* is any better than any other distribution of
Rrad?

I have no axe to grind here, just curiosity...

Best Regards for the New Year.

--
Peter K1PO
Indialantic By-the-Sea, FL.

192. Re: Low budget in-house cellular repeater project questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 00:22:14 UTC
From: nx7u@arrl.net
Message-ID: <3ff8ac91.34992163@news.west.cox.net>
Source record: 102364

The trick to passive repeaters:
The inside antenna that re-radiates the signal from the cell tower
will have 22dB path loss for the first wavelength of distance, and 6dB
for each doubling of distance past that. Ferinstance, say the
re-radiating antenna needs to be able to cover a distance of 30'.
That's 30 wavelengths (more or less) at 800MHz. So the loss from the
reradiating antenna is 22 (first foot)+6(second foot)+6(to 4')+6(to
8')+6(to 16')+6(to 32') or 52dB. If the outside signal is, say,
-80dBm (which would be ok), then inside you're -132dBm, or useless.

Gain on the "outside" antenna needs to make up at least the 52dB loss
in this scenario, or you're still worse off outside than in. You
won't find a 52dB antenna at 800MHz. Nor a 36 probably. Note that
the "usual" 4-5' panel antennas used at 800MHz are about 14dBi gain.

The situation isn't any better at 1900. Although you can get more
gain from the "outside" antenna, the 30' of coverage is more
wavelengths (nearly twice as many) for 6dB or so more free space loss.

On Sun, 4 Jan 2004 11:51:57 -0700, "Mark Atanovich"
<m.atanovich@cox.net> wrote:

>Howdy,
>I would like to get rid of my land phone line. The only thing keeping me
>from doing this is the relatively poor indoor reception on my cell phone
>(outdoors is just fine). I can't justify spending $700 for a powered
>repeater set-up, but since I get good outdoor reception, would it be
>possible to couple a dual frequency (800 & 1900 MHz) high gain (36 dbi)
>directional antenna directly to an indoor multi directional unit (both 50
>Ohm impedance)? This would only cost a couple hundred bucks, but will it
>work in theory? Any advice or
>other suggestions would be greatly appreciated.
>
>Mark
>
>

193. Delphi QFM-9 vs RS 6-element for FM Stereo?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 00:42:30 UTC
From: Ed Light <nobody@nobody.there>
Message-ID: <Vp2Kb.50586$BQ5.35702@fed1read03>
Source record: 102365
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx

Is it ok to ask about FM Stereo antennas here?

I'm running this Radio Shack 6-element FM antenna for a station at 107.3

http://www.radioshack.com/product.asp?catalog%5Fname=CTLG&product%5Fid=15-2163

Usually it's clear in mono but not in stereo. Sometimes it's distorted in
mono.

Would a Delphi QFM-9 be much stronger and maybe clear this up?

http://starkelectronic.com/fmpage.htm 3rd one down

Thanks in advance.
--
Ed Light

Smiley :-/
MS Smiley :-\

Send spam to the FTC at
uce@ftc.gov
Thanks, robots.

194. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 02:30:44 UTC
From: richardharrison@webtv.net
Message-ID: <8943-3FF8CC54-372@storefull-2314.public.lawson.webtv.net>
Source record: 102366

Art, KB9MZ wrote:
"Thus this is inferior to a vertical that captures the low angles and discriminates against the high angles plus inferior to a poor vertical that discriminates against low angles."

Yes, a vertical discriminates against high angles as it has a null in its pattern overhead.
What "poor vertical" discriminates against low angles if ground conductivity is OK? A too-short vertical still has maximum radiation toward the horizon though it has less than a 1/4-wave or 5/8-wave vertical antenna has.

Best regards, Richard Harrison, KB5WZI

195. Re: Advice wanted:T-match Coax Balun for Yagi Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 03:24:32 UTC
From: "Steve B." <eagle572REMOVE@REMOVEcomcast.net>
Message-ID: <EMydnY1IrfB3RWWi4p2dnA@comcast.com>
Source record: 102367

Thanks Tam, for the reply.
I am using a T-match, with the driven element NOT insulated at the
center, similar to the T-match used on the M-squared yagis for VHF. I
cannot get a match no matter how much I move the shorting straps on the
T-bars.
Steve

Tarmo Tammaru wrote:
> Steve,
>
> Are you doing a T match or a Beta match? I looked at a Hygain 6 m beam, and
> the shorting bars are set to 9-1/2 inches from the center. The driven
> element is insulated at the center, and the beta rod is connected to the
> boom at the center. The coax is connected to the driven element. As I
> understand it, in a real T match the coax is connected to the T rod, but it
> supposedly does not have as good an adjustment.
>
> Tam/WB2TT
> "Steve B." <eagle572REMOVE@REMOVEcomcast.net> wrote in message
> news:Ksmdnamu3pz6lmqiRVn-hw@comcast.com...
>
>>I have a 6 meter beam with "plumbers delight" construction. I have not
>>been successful in making a 1/2 wave coax balun (T-match) get a proper
>>impedance match at 50.125 MHz center frequency. The driven element is
>>0.625" Outside diameter. The T-bars have adjustable shorting straps for
>>a max length of 14", with 3" spacing below the driven element.
>>
>>The balun is made of RG-142 Teflon-coax, and is 81 inches long. The
>>velocity factor is 0.695, so the length is:
>>
>>1/2 WaveLength (meters) = (150 * V)/F where F is in MHz.
>>
>>Thus, the half-wave coax would be (150*0.695)/50.125 in meters.
>>Multiply by 39.37 inches per meter to get 81.8 inches for the coax length.
>>
>>Any ideas why this did not do the job? I checked the coax for
>>opens/shorts and moved the T-bar shorting straps to no avail. The best
>>SWR was no better than about 3:1, even after adjusting the length of the
>>driven element.
>>
>> I tested the driven element (both by itself and installed on the beam)
>>mounted on a temporary mast at about 10 feet to avoid most of the ground
>>effect.
>>

>>Thanks,
>>Steve Bell KJ7OG
>>
>
>
>

196. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 03:41:25 UTC
From: richardharrison@webtv.net
Message-ID: <9878-3FF8DCE5-347@storefull-2317.public.lawson.webtv.net>
Source record: 102368

Mark Keith wrote:
"My dipole on 40m was only 35-40 ft. Not 1/2-wave up. But not once did it ever beat my vertical long haul."

I believe Mark. The scales may be tilted in the favor of Mark`s vertical by the high-conductivity soil at Mark`s QTH.

Commercial stations spend what it takes to put those horizontal antennas up at elevations which bring the take-off angle down low enough to reach out the distance to the target area.

At high elevation, a dipole becomes bidirectional in azimuth. This gain is often enhanced by a reflector, directors, extended element lengths, or additional in-phase elements. Curtain arrays are popular transmitting antennas. So are rhombics, especially for point-to-point, for both transmission and reception.

Receiving antenna farms rely on rhombics, Beverages, fishbones, etc, where the object is directivity and gain to give S/N, if not efficiency.

Best regards, Richard Harrison, KB5WZI

197. Re: Keeping moisture out of 9913 type coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 03:52:03 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <mjnhvv8v05nkptnaj5oi7jnf5gduqk457i@4ax.com>
Source record: 102269
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.space

On Sat, 03 Jan 2004 17:00:25 -0500, Stilz <stilz@attglobal.net> wrote:

>
>
>Ron wrote:
>>
>> On Wed, 31 Dec 2003 02:51:26 +0000, Dave Woolf wrote:
>>
><snipped>
>
>>
>> IMHO: Take a close look at Times Microwave cables, I think it's a better
>> products than the equivalent Beldon.
>>
>> Ron
>
>I agree. Not to sound like an ad for Times Microwave but IMHO the stuff
>is great and well worth the additional cost. I first started using it

Additional cost? It's been pretty much a few cents below 9913 most of
the time. <:-)) (admittedly I have purchased any in a couple of years,
got enough to last for a while) And it takes the same connectors.

>for S band and above. Today, it's the only type I got installed
>anywhere.

I pulled out well over a 1000 feet of 9913 after the lightening strike
and ordered 1500 feet of LMR-400. I gave most of the 9913 to local
club members.

Roger Halstead (K8RI & ARRL life member)
(N833R, S/# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
>Mike
>
>KG4RRH

198. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 04:41:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btapsv$h7t$1@sparta.btinternet.com>
Source record: 102270

Peter,

I am somewhat surprised to receive such questions from your good self. They are not so far from the realms of Ohm's Law as to cause YOU any difficulties. Perhaps after the festivities you are feeling too lazy to satisfy your own curiosity by exercising your brain cells. ;o)

You must be aware, even without thinking about it, a lumped radiation resistance must always be associated with a definite location on an antenna at which the current is known. This by no means need be at the feedpoint. But I guess this is the first occasion on which you have been confronted with the *distributed* variety and have been brought to a sudden dead stop.

Let's stay with the well-known resonant 1/2-wave dipole. The objective is to directly compare radiation resistance with wire loss resistance. To do this means the same current must flow through both just as if they were in series with each other.

{ Many people are familiar with the simple equation, efficiency = Rrad / (Rrad + Rloss) and state it whenever an appropriate occasion arises. It sounds very learned of course. But in the whole of North America I venture to say hardly a single radio amateur knows from where Rloss and Rrad can be obtained (except perhaps ground loss with verticals) and what its value is. It follows that few have ever used the equation presented in Handbook articles, etc. }

We have a choice. 1. Lump both the radiation resistance and conductor resistance together at one point after transforming from the distributed to lumped value of wire loss.

Or 2, leave the wire resistance where it is and distribute the radiation resistance along the wire. We have no choice about the type of istribution - it must be the same as the wire resistance is distributed - i.e., uniformly.

Whatever we do we cannot avoid transforming from a lumped to distributed resistance value, or vice-versa. Electrical engineers do it all the time. In the case of a dipole there are several ways. But its a simple process and the result is amazingly even more simple.

I prefer to begin with the accurate assumption of a sinewave distribution of current along the dipole wire with the maximum of 1 amp at the dipole centre. Then integrate P = I squared R from one end of the wire to the other to find the total power dissipated in the wire.

The equivalent lump of resistance located at the centre (where 1 amp flows) turns out to be exactly half of uniformly distributed end-to-end resistance

of the wire. In fact, that's exactly how the radiation resistance of the usual 70-ohm lump got itself into a dipole's feedpoint. It is exactly half of 140 ohms. If radiation resistance itself had any say in the matter I am sure it would prefer to be nicely spread along the length of the wire instead of being stuck in a lump next to the feedpoint.

If the end-to-end wire loss resistance is R ohms then the ficticious equivalent lump at the centre feedpoint is exactly R/2 ohms. So easy to remember, eh?

Another way of obtaining exactly the same result is to calculate the input impedance of a 1/4-wave, open-circuit, transmission line, which of course is the same as half of a half-wave dipole. It even has a 1/4-sinewave current distribution along its length. The input resistance at resonance is always half of the conductor loss resistance. With a good impedance bridge this can be measured to keep Roy happy.

In fact, it is the pair of 1/4-wave, open-circuit, single-wire lines constituting the dipole which transform the uniformly distributed wire loss resistance to the equivalent lumped 1/2-value input resistances as measured at the dipole centre. And, of course, the antenna performs exactly the same transformation on an antenna's uniformly distributed radiation resistance. I sometimes feel sorry for things which find themselves securely locked in, constrained for ever to obey the irresistible laws of nature, helpless to do othewise, for ever.

See how the interlocking bits of the jig-saw puzzle now fit very nicely together.

Your general question - yes it would be possible to 'assume' any arbitrary mathematical distribution of radiation or loss resistance and then find an equivalent lumped value which would radiate/dissipate the same power when located at a particular current point. But it would not be of any practical use - it would never correspond to an actual antenna. When calculating efficiency of wire antennas it seems only a uniform distribution of resistance is of any use. An investigator has no choice in the matter.

Calculating the efficiency of coil loaded antennas gets complicated. The current distributions of the upper and lower sections are different and so are their efficiencies. But efficiencies are so high in the conductors themselves ball-park guesses are good enough. However it is still necessary to transform various effects, including those due to the coil, to the common base feedpoint in order to calculate input impedance.

Best Wishes, Reg, G4FGQ

==========

> Reg:
>
> [snip]
> > For calculating convenience, we assume the radiation resistance, Rrad, is

> > uniformly distributed along the length of the wire and is 140 ohms which
> has
> > been calculated from its dimensions. It only has two - Length and
> > Diameter. But for a half-wave dipole it is always about 140 ohms. Wire
> > diameter has a relatively small effect on Rrad.
> [snip]
>
> Reg, in your model, is your *assumption* "for calculating convenience"
that
> radiation
> resistance is uniformly distributed along the antenna structure, i.e. the
> transmission line
> that represents the antenna in your model, supported by any theory or is
it
> just a
> mathematical *fit* to the data?
>
> For example, one could *assume* literally any analytic distribution of
> radiation resistance
> along an antenna's length, for instance sinusoidal, catenary, exponential,
> triangular, etc...
> and come up with a value/function for that particular distribution that
has
> the equivalent
> effect of a lumped value placed at the antenna feedpoint. What is so
unique
> about uniform?
>
> Why do you think *uniform* is any better than any other distribution of
> Rrad?
>
> I have no axe to grind here, just curiosity...
>
> Best Regards for the New Year.
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL.
>
>

199. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 05:43:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ff8fa00_3@corp.newsgroups.com>
Source record: 102271

Peter O. Brackett wrote:
> Why do you think *uniform* is any better than any other distribution of
> Rrad?

Here's a quote from _Antennas_, by Kraus & Marhefka: "... the radiation resistance may be thought of as a virtual resistance that does not exist physically but is a quantity coupling the antenna to distant regions of space via a virtual transmission line."
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

200. Re: Do you recognize yourself ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 06:26:38 UTC
From: Sarge <sarge43@ev1.net>
Message-ID: <vvi0t12vn6sfa3@corp.supernews.com>
Source record: 102272

Wahahahahaha!!!

"Stef" <vee_ee_too_oh_doubleyou_ell@rac.ca> wrote in message
news:r906vvk9q09k6npsf0idbl01jav813uudt@4ax.com...
> How many addicts of the internet forums is it necessary to change an
> electric light bulb?

201. Re: Patch antenna on FR4 PCB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 10:54:49 UTC
From: samsvl@nlr.nl
Message-ID: <Xns946779311C966samsvlnlrnl@137.17.128.14>
Source record: 102273

"OZ1IPU - John" <oz1ipu@mail.dk> wrote in
news:3ff1aee1$0$95054$edfadb0f@dread11.news.tele.dk:

> Hello
>
> I am looking for a design on a 2,4GHz RHCP Patch for my dish, it need
> to be on FR4, PCB, (no mechanics Patch in metal!). are there somebody
> there have a design with layout for FR4????.
>
> Vy 73 John OZ1IPU
>
> oz1ipu@mail.dk
>
Some designs at http://www.helenav.nl/antlinks.htm

202. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 13:14:13 UTC
From: richardharrison@webtv.net
Message-ID: <9878-3FF96325-398@storefull-2317.public.lawson.webtv.net>
Source record: 102274

Vaughn, N2BHA wrote:
"---I have cut and run radial at 1/4 wave for each band and run them under the eaves up here in the attic."

Unless elevated radials are balanced, they radiate. One 1/4-wave wire for each band is an antenna for each band radiating directly into your house.

Best regards, Richard Harrison, KB5WZI

203. Re: Low budget in-house cellular repeater project questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 14:01:53 UTC
From: Mark Atanovich <m.atanovich@cox.net>
Message-ID: <k7eKb.26608$i55.6640@fed1read06>
Source record: 102275

Big Yagi:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3069166733&category=41298

Is this BS or is this kind of gain at least theoretically possible?

"Ralph Mowery" <rmowery@ctc.net> wrote in message
news:WJGdnR--k_Js5WWi4p2dnA@ctc.net...
> > I would like to get rid of my land phone line. The only thing keeping
me
> > from doing this is the relatively poor indoor reception on my cell phone
> > (outdoors is just fine). I can't justify spending $700 for a powered
> > repeater set-up, but since I get good outdoor reception, would it be
> > possible to couple a dual frequency (800 & 1900 MHz) high gain (36 dbi)
> > directional antenna directly to an indoor multi directional unit (both
50
> > Ohm impedance)? This would only cost a couple hundred bucks, but will
it
> > work in theory? Any advice or
> > other suggestions would be greatly appreciated.
>
> While passive repeaters are often used, what kind of antennas are you
going
> to use to get 36 dbi ?
>
>

204. Re: Low budget in-house cellular repeater project questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 14:05:19 UTC
From: Mark Atanovich <m.atanovich@cox.net>
Message-ID: <yaeKb.26609$i55.14225@fed1read06>
Source record: 102276

Well, I guess that answers that! Thanks. Would you have any
recommendations for an affordable BDA I could use for this project?

Regards,
Mark

"Scott Townley" <nx7u@arrl.net> wrote in message
news:3ff8ac91.34992163@news.west.cox.net...
> The trick to passive repeaters:
> The inside antenna that re-radiates the signal from the cell tower
> will have 22dB path loss for the first wavelength of distance, and 6dB
> for each doubling of distance past that. Ferinstance, say the
> re-radiating antenna needs to be able to cover a distance of 30'.
> That's 30 wavelengths (more or less) at 800MHz. So the loss from the
> reradiating antenna is 22 (first foot)+6(second foot)+6(to 4')+6(to
> 8')+6(to 16')+6(to 32') or 52dB. If the outside signal is, say,
> -80dBm (which would be ok), then inside you're -132dBm, or useless.
>
> Gain on the "outside" antenna needs to make up at least the 52dB loss
> in this scenario, or you're still worse off outside than in. You
> won't find a 52dB antenna at 800MHz. Nor a 36 probably. Note that
> the "usual" 4-5' panel antennas used at 800MHz are about 14dBi gain.
>
> The situation isn't any better at 1900. Although you can get more
> gain from the "outside" antenna, the 30' of coverage is more
> wavelengths (nearly twice as many) for 6dB or so more free space loss.
>
>
> On Sun, 4 Jan 2004 11:51:57 -0700, "Mark Atanovich"
> <m.atanovich@cox.net> wrote:
>
> >Howdy,
> >I would like to get rid of my land phone line. The only thing keeping me
> >from doing this is the relatively poor indoor reception on my cell phone
> >(outdoors is just fine). I can't justify spending $700 for a powered
> >repeater set-up, but since I get good outdoor reception, would it be
> >possible to couple a dual frequency (800 & 1900 MHz) high gain (36 dbi)
> >directional antenna directly to an indoor multi directional unit (both 50
> >Ohm impedance)? This would only cost a couple hundred bucks, but will it
> >work in theory? Any advice or
> >other suggestions would be greatly appreciated.
> >
> >Mark
> >
> >

>

205. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 15:43:40 UTC
From: richardharrison@webtv.net
Message-ID: <5177-3FF9862C-358@storefull-2313.public.lawson.webtv.net>
Source record: 102277

Cecil, W5DXP wrote:
"Here`s a quote from _Antennas_by Kraus&Marthelka: "... the radiation resistance may be thought of as a virtual resistance that does not exist physically but is a quantity coupling the antenna to distant regions of space via a virtual transmission line."

A problem comparing radiation to a transmission line is that everytime line length increases a fixed amount, so does the loss. The loss is so many db per mile. After a radio wave travels a million miles, the next million miles only produces an additional 6 db loss. Thus, we are looking at radio pictures from Mars. We couldn`t get them by the lowest loss coax from Mars without distributed repeaters.

I can`t find my 1955 edition of Terman but as I recall he says that radiation resistance is equal to the resistor, which if placed in series with the antenna, would consume the same power that the antenna does. Radiation resistance is a useful fiction. Radiation resistance is usually the resistance at an antenna`s maximum current point. Fictional or not, it can be measured with an impedance bridge.

My 1937 edition of Terman says:
"---fields produced by the antenna currents induce back voltages that are equivalent to an impedance against which the applied voltage can be considered as acting."

Terman also says: "In addition to the radiated energy, energy is also lost in the antenna system as a result of wire and ground resistance, corona, eddy currents induced in neighboring masts, guy wires and other conductors, and dielectric losses arising from such imperfect dielectrics as trees and insulators, located in the field of the antenna. These losses can be represented in the same way as the radiated energy, i.e., by a resistance which inserted in series with the antenna will consume the same amount of power as that actually dissipated in these various ways. The total antenna resistance is the sum, Rr + Rl, of the radiation resistance Rr and the loss resistance Rl, and determines the amount of energy that must be supplied to the antenna to produce a given current.

The efficiency of the antenna as a radiator is the ratio Rr / (Rr + Rl) of radiation to total resistance. This represents the fraction of the total energy supplied to the antenna which is converted into radio waves."

Terman also says:
"The radiated field (epsilon) varies directly as the current I, the frequency f, the doublet length (delta)l, and the cosine of the angle of

elevation, and is inversely proportional to the distance d."

The strength of the radiation from an antenna at a point P is the sum of the strengths of the fields of its elemental pieces carrying a current I.

Current is not uniform throughout the usual antenna and neither is the antenna`s impedance. The current is zero at the open ends of an antenna, near zero at exact multiples of a half wave length distant from the open end, while the current is maximum at points that are odd quarter wave lengths distant from the open ends.

Best regards, Richard Harrison, KB5WZI

206. Re: Low budget in-house cellular repeater project questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 16:15:25 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <w4gKb.756928$Fm2.702948@attbi_s04>
Source record: 102278

Mark Atanovich wrote:
> Big Yagi:
>
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3069166733&category=41298
>
> Is this BS or is this kind of gain at least theoretically possible?
>
Probably more BS than truth!

dB is a ratio. To simply quote 35 dB gain is 100% useless. It has to be
gain compared to what?

The images at the web site show a 13 element Yagi. Thirteen elements
typically produce about 15.8 dBi or about 13.7 dBd.

The higher gains quoted, 35 dB, can be achieved in BIG DISH antennas
[100 foot diameter at 2 GHZ or 300 foot diameter at 800 MHz].

I suspect there is more marketing than science in the 36 dB gain figure.
It may be, I say again may be, based on signal inside a house compared
with a signal from an outside antenna at altitude. But 36 dB is an
increase of 4000 times. That sounds like a stretch.

207. Re: Patch antenna on FR4 PCB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 16:20:05 UTC
From: OZ1IPU - John <oz1ipu@mail.dk>
Message-ID: <3ff98dd2$0$95050$edfadb0f@dread11.news.tele.dk>
Source record: 102279

Hello
Thanks, I will look and se if I can use that.

John OZ1IPU

Sam Storm van Leeuwen <samsvl@nlr.nl> skrev i en
nyhedsmeddelelse:Xns946779311C966samsvlnlrnl@137.17.128.14...
> "OZ1IPU - John" <oz1ipu@mail.dk> wrote in
> news:3ff1aee1$0$95054$edfadb0f@dread11.news.tele.dk:
>
> > Hello
> >
> > I am looking for a design on a 2,4GHz RHCP Patch for my dish, it need
> > to be on FR4, PCB, (no mechanics Patch in metal!). are there somebody
> > there have a design with layout for FR4????.
> >
> > Vy 73 John OZ1IPU
> >
> > oz1ipu@mail.dk
> >
> Some designs at http://www.helenav.nl/antlinks.htm

208. Re: Delphi QFM-9 vs RS 6-element for FM Stereo?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 16:24:25 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <ZcgKb.750452$Tr4.2075631@attbi_s03>
Source record: 102280
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx

I suspect your problem is that the antenna is seeing a signal that has some components from reflections off of other building, hills, ridges, etc. It is called multi-path.

My first approach would be to get the antenna higher in the air and then make sure it 'sees' the transmitting antenna from the station. If you cannot establish 'line of sight' then multi-path will always be part of your reception.

Ed Light wrote:

> Is it ok to ask about FM Stereo antennas here?
>
> I'm running this Radio Shack 6-element FM antenna for a station at 107.3
>
> http://www.radioshack.com/product.asp?catalog%5Fname=CTLG&product%5Fid=15-2163
>
> Usually it's clear in mono but not in stereo. Sometimes it's distorted in
> mono.
>
> Would a Delphi QFM-9 be much stronger and maybe clear this up?
>
> http://starkelectronic.com/fmpage.htm 3rd one down
>
> Thanks in advance.

209. Re: Delphi QFM-9 vs RS 6-element for FM Stereo?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 16:33:50 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <3ff99485_1@news1.prserv.net>
Source record: 102281
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx

Ed:

Dave is correct in that selecting the correct antenna depends on identifying the problem first. For example, if the actual problem is receiver front end overload, then a higher gain antenna will make it worse instead of better. If the problem is reflections (and sorry, Dave, LOS is not necessarily reflection free, I used to have to look at the local TV stations between two elevated water towers, LOS with two ghosts), then antenna pattern, rather than gain alone will matter. If you want an engineering evaluation, then a whole bunch of facts are needed, and the two facts which are needed most will be hard to come by: 1. A spectrum analyzer shot of what appears at the receiver end of your feedline, plus 2. A audio frequency phase analysis of the detected signal to determine main and delayed content.

--
Crazy George
Remove N O and S P A M imbedded in return address

210. Re: Do you recognize yourself ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 18:16:50 UTC
From: Stef <vee_ee_too_oh_doubleyou_ell@rac.ca>
Message-ID: <rfajvv8851bd3p5ioo790ce5nvmujc8gv3@4ax.com>
Source record: 102282

I couldn't resist it ...

211. Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 18:40:50 UTC
From: "Murray Green, K3BEQ" <mgreen@erols.com>
Message-ID: <3FF9AFB2.14DCC066@erols.com>
Source record: 102283
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Can any of you antenna pros out there tell me what would be the expected life span for a Cell Wave 4 element vertical dipole? Do not have the model number but the cost was close to $600 when purchased. The antenna is cut for 2 meters. Realize that a number of factors can be involved such as weather conditions, area installed etc. In this case it is up 80' off ground level and 300' above sea level just outside of WashDC.

Second question. I recognize that Cellwave has an excellent reputation. Are there any other antenna companies that may compare or exceed Cellwave antenna products in performance and durability?

Thanks.
73 Murray, K3BEQ

212. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 18:42:30 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0401051042.625ea5e@posting.google.com>
Source record: 102284

Very, very good Reg. If you can get them to understand
what you have said, it would be a cakewalk to understand
the underpinnings of my antennas. My aproach of explaining
what you have said is to refer to 'complex circuitry',
where in general use this is used to SIMPLIFY circuits.
If one understood the basics of what you are pointing out
then one could easily understand how one can translate
lumped circuits to circuits that RADIATE in an efficient manner.
It should not be difficult to understand that a matching circuit
which is desirable in a lot of cases, is a circuit of lumped items.
There is absolutely no reason whatsoever to prevent one from
transforming
the lumped items to radiating circuits which not only radiate but also
provide the same impedance to a transmitter that the original matching
unit supplied.
Also very importantly it shows how little the frequency dominates
the antenna size
Thanks a bunch for your posting and I wish you luck in your
education pursuit in the area that I met failure
Cheers
Art.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:<btapsv$h7t$1@sparta.btinternet.com>...
> Peter,
>
> I am somewhat surprised to receive such questions from your good self. They
> are not so far from the realms of Ohm's Law as to cause YOU any
> difficulties. Perhaps after the festivities you are feeling too lazy to
> satisfy your own curiosity by exercising your brain cells. ;o)
>
> You must be aware, even without thinking about it, a lumped radiation
> resistance must always be associated with a definite location on an antenna
> at which the current is known. This by no means need be at the feedpoint.
> But I guess this is the first occasion on which you have been confronted
> with the *distributed* variety and have been brought to a sudden dead stop.
>
> Let's stay with the well-known resonant 1/2-wave dipole. The objective is
> to directly compare radiation resistance with wire loss resistance. To do
> this means the same current must flow through both just as if they were in
> series with each other.
>
> { Many people are familiar with the simple equation, efficiency = Rrad /
> (Rrad + Rloss) and state it whenever an appropriate occasion arises. It

> sounds very learned of course. But in the whole of North America I venture
> to say hardly a single radio amateur knows from where Rloss and Rrad can be
> obtained (except perhaps ground loss with verticals) and what its value is.
> It follows that few have ever used the equation presented in Handbook
> articles, etc. }
>
> We have a choice. 1. Lump both the radiation resistance and conductor
> resistance together at one point after transforming from the distributed to
> lumped value of wire loss.
>
> Or 2, leave the wire resistance where it is and distribute the radiation
> resistance along the wire. We have no choice about the type of
> istribution - it must be the same as the wire resistance is distributed -
> i.e., uniformly.
>
> Whatever we do we cannot avoid transforming from a lumped to distributed
> resistance value, or vice-versa. Electrical engineers do it all the time.
> In the case of a dipole there are several ways. But its a simple process
> and the result is amazingly even more simple.
>
> I prefer to begin with the accurate assumption of a sinewave distribution of
> current along the dipole wire with the maximum of 1 amp at the dipole
> centre. Then integrate P = I squared R from one end of the wire to the
> other to find the total power dissipated in the wire.
>
> The equivalent lump of resistance located at the centre (where 1 amp flows)
> turns out to be exactly half of uniformly distributed end-to-end resistance
> of the wire. In fact, that's exactly how the radiation resistance of the
> usual 70-ohm lump got itself into a dipole's feedpoint. It is exactly half
> of 140 ohms. If radiation resistance itself had any say in the matter I am
> sure it would prefer to be nicely spread along the length of the wire
> instead of being stuck in a lump next to the feedpoint.
>
> If the end-to-end wire loss resistance is R ohms then the ficticious
> equivalent lump at the centre feedpoint is exactly R/2 ohms. So easy to
> remember, eh?
>
> Another way of obtaining exactly the same result is to calculate the input
> impedance of a 1/4-wave, open-circuit, transmission line, which of course is
> the same as half of a half-wave dipole. It even has a 1/4-sinewave current
> distribution along its length. The input resistance at resonance is always
> half of the conductor loss resistance. With a good impedance bridge this can
> be measured to keep Roy happy.
>
> In fact, it is the pair of 1/4-wave, open-circuit, single-wire lines
> constituting the dipole which transform the uniformly distributed wire loss
> resistance to the equivalent lumped 1/2-value input resistances as measured
> at the dipole centre. And, of course, the antenna performs exactly the same
> transformation on an antenna's uniformly distributed radiation resistance.
> I sometimes feel sorry for things which find themselves securely locked in,

> constrained for ever to obey the irresistible laws of nature, helpless to do
> othewise, for ever.
>
> See how the interlocking bits of the jig-saw puzzle now fit very nicely
> together.
>
> Your general question - yes it would be possible to 'assume' any arbitrary
> mathematical distribution of radiation or loss resistance and then find an
> equivalent lumped value which would radiate/dissipate the same power when
> located at a particular current point. But it would not be of any practical
> use - it would never correspond to an actual antenna. When calculating
> efficiency of wire antennas it seems only a uniform distribution of
> resistance is of any use. An investigator has no choice in the matter.
>
> Calculating the efficiency of coil loaded antennas gets complicated. The
> current distributions of the upper and lower sections are different and so
> are their efficiencies. But efficiencies are so high in the conductors
> themselves ball-park guesses are good enough. However it is still necessary
> to transform various effects, including those due to the coil, to the common
> base feedpoint in order to calculate input impedance.
> ---
> Best Wishes, Reg, G4FGQ
>
> ==========
>
> > Reg:
> >
> > [snip]
> > > For calculating convenience, we assume the radiation resistance, Rrad,
> is
> > > uniformly distributed along the length of the wire and is 140 ohms which
> has
> > > been calculated from its dimensions. It only has two - Length and
> > > Diameter. But for a half-wave dipole it is always about 140 ohms. Wire
> > > diameter has a relatively small effect on Rrad.
> > [snip]
> >
> > Reg, in your model, is your *assumption* "for calculating convenience"
> that
> > radiation
> > resistance is uniformly distributed along the antenna structure, i.e. the
> > transmission line
> > that represents the antenna in your model, supported by any theory or is
> it
> > just a
> > mathematical *fit* to the data?
> >
> > For example, one could *assume* literally any analytic distribution of
> > radiation resistance
> > along an antenna's length, for instance sinusoidal, catenary, exponential,

> > triangular, etc...
> > and come up with a value/function for that particular distribution that
> has
> > the equivalent
> > effect of a lumped value placed at the antenna feedpoint. What is so
> unique
> > about uniform?
> >
> > Why do you think *uniform* is any better than any other distribution of
> > Rrad?
> >
> > I have no axe to grind here, just curiosity...
> >
> > Best Regards for the New Year.
> >
> > --
> > Peter K1PO
> > Indialantic By-the-Sea, FL.
> >
> >

213. Re: Advice wanted:T-match Coax Balun for Yagi Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 21:19:19 UTC
From: KAZeringue <kazeringue@aol.com>
Message-ID: <3FF9D51F.9070902@aol.com>
Source record: 102285

Sounds fun.

Did you try adjusting the length of the driven element, if it is adjustable? Just a wee bit, near that 3:1 SWR point?

Also, seems you might be better served with a 1:1 coil of coax as a choke, unless I misunderstand. You should be able to get a direct match to the coax.

Don't know for sure, but it seems like the driven element needs to be a wee bit short for gamma type matches. Hmmm, I feel an Uda attack coming on.

(Hey lets give the grad student some credit! He probably did all the real work, while Yagi was back in the lab, reading Uda's notes and tossing back saki. That's how it works here in the US, aina, 'cept they drink Chivas...)

good luck!

73, w4kaz

214. Re: Incoming radiation angles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 23:11:13 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401051511.6f31e4b3@posting.google.com>
Source record: 102286

richardharrison@webtv.net (Richard Harrison) wrote in message
>
> Receiving antenna farms rely on rhombics, Beverages, fishbones, etc,
> where the object is directivity and gain to give S/N, if not efficiency.
>
> Best regards, Richard Harrison, KB5WZI

I was thinking earlier that it should be easier to build high gain
arrays for low freq's horizontally, than vertical. Easier to go out
parallel to the earth, than to build a load of tall towers to act as
an array. But if they use tall towers to support a rhombic of
whatever, I guess it might even out. MK

215. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 23:53:51 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <btcthlphd1@newshost.mot.com>
Source record: 102289

Handle was used on the HF ham bands before most of the readers were born.

Steve

K;9;D;C;I

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
news:bt7eib$3fef$1@news3.infoave.net...
> Just like I had some "newby" attempt to chastise me on a 2 meter repeater
> for using "handle". He told me that that word was only used on 11 meters.
>
> I had to admit, I did use it on 11 meters when it was a ham band. But
thanks
> for the lesson Good Buddy!
>
>
>

216. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-05 23:56:25 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <btctmepml1@newshost.mot.com>
Source record: 102288

I would add only one thing to this. The thing used to measure the SWR can also be responsible for strange results when the SWR is not low. Don't always assume that the thing used to measure something is exact all the time.
Steve
K:9:D:C:I

"Dave Shrader" <david.shrader@comcast.net> wrote in message news:biGJb.213249$8y1.750188@attbi_s52...
> Keven Matthews wrote:
>
> > I recently moved my shack from an upstairs room to downstairs, much closer
> > to the garden and antennas.
>
> SNIPPED
>
> Kevin, there have been numerous responses to your original post. Let me
> be an Elmer for a short moment.
>
> An example of antenna resonance and VSWR follows.
>
> In my mobile I have a resonant 40 meter Hamstick. Resonance means there
> is NO Reactance in the antenna impedance. My antenna analyzer indicates
> approximately 12 + j0 ohms at 7.225 MHz. This is almost a 5:1 VSWR and
> that's what a meter indicates. Now, I added an ICOM AH-4 automatic
> antenna tuner at the antenna. The antenna is still 12 + j0 ohms but the
> tuner transforms the impedance to 50 + j0 ohms. So, the VSWR from the
> antenna/tuner to the 706, approximately 16 feet of coax, is now
> approximately 1:1.
>
> Since the length of coax in your installation changes the measured VSWR,
> the coax is part of the antenna system and is radiating. So, you need to
> isolate the coax from the antenna. There are several ways to accomplish
> this. The most direct way is to make a coil of coax about 4 to 6 inches
> diameter and having 8 to 10 turns and install it directly at the base of
> the antenna. If you have a ground radial system make sure the coax is
> underneath [lower] than the radial system. Finally, install some clamp
> on ferrites, available from Radio Shack for less than $10, at the 1/4
> and 1/2 wavelength on the coax from the antenna feedpoint.
>
> Hopefully this will clean up the RF on the coax.
>
> With a vertical antenna a reasonable VSWR at antenna resonance should be

> somewhere between 1.5:1 and 2.0:1.
>
> Deacon Dave, W1MCE
>

217. FS: Connectors, Antennas, Meters, Mounts, etc.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 00:18:26 UTC
From: tersian@yahoo.com
Message-ID: <82598237.0401051618.5a17004a@posting.google.com>
Source record: 102290

For pictures of these items or to buy online, please see
http://www.sauderelectronics.com

1
Super Stud-750
Heavy duty super stud mount for 3/8" x 24 thread antennas. For all
frequencies up to 20K power
$12.00

2
SO-239 Stud
All brass SO-239 stud mount for 3/8" x 24 thread antennas.
$3.00

3
Lug Stud
All brass lug terminal type stud mount for 3/8" x 24 thread antennas.
$2.50

4
Nut
All brass chrome plated nut with 3/8" x24 thread.
$1.00

5
Replacement Stud
3/8" x 24 brass replacement stud.
$0.50

6
Nylon Washer 10 pack
3/8" center nylon washer for 1/2" hole (10 per pack)
$1.50

7
Antenna Stud .200
Brass 3/8" x 24 Antenna stud with .200 hole for 102" whips (with set
screws)
$2.50

8
Antenna Stud .100
Brass 3/8" x 24 Antenna stud with .100 hole (with set screw)
$2.50

9
H/D Stainless Quick Disconnect

Heavy duty stainless steel antenna quick disconnect with internal
locking. Designed for BIG antennas with 3/8"x24 thread.
$20.00

10
Stainless Quick Disconnect
Stainless steel antenna quick disconnect with twist lock. Small body
type for antennas with 3/8"x24 thread.
$10.00

11
Antenna Quick Disconnect
Antenna quick disconnect with knurl brass body. Twist lock type for
3/8"x24 thread antennas
$5.00

12
NMO to SO239 Adaptor
Changes NMO mount to an SO239 mount.
$7.00

13
NMO to 3/8
Changes NMO mount to a 3/8" x 24 thread mount.
$7.00

14
NMO Connector
NMO or Motorola style connector.
$4.00

15
NMO Rain Cap
Plastic rain cap for NMO type mounts. Protects mount when not in
use.
$1.00

16
Molded Antenna Mount/Stainless
Molded antenna mount for 3/8" x 24 thread antenna with stainless
steel center stud. Fits 3/4" hole.
$11.00

17
Molded Antenna Mount
Molded antenna mount for 3/8" x 24 thread antenna. Fits 3/4" hole.
$9.00

18
Clip Type BNC Mount/Hat Clip
Clip type BNC female to BNC male connector with 4' RG174U coaxial
cable. Can clip HT antenna to hat or other uses.
$8.00

19
Tri-Mount
Three way mirror mount with an SO239 stud for 3/8"x24 thread antenna.
$6.00

20
UHF Magnetic Mount
Mag mount with 3" steel cup (black) with SO239 (UHF) hub and 12'
RG58AU coax w/PL259 connector.
$15.00

21
NMO Magnetic Mount
Mag mount with 3" steel cup (black) with Motorola (NMO) hub and 12'
RG58AU coax w/PL259 connector. TEMPORARILY OUT OF STOCK.
$13.00

22
Pick-up Truck Stake Bed Mount
Stake hole mount (stainless steel bracket) with SO239 stud for
3/8"x24 thread antennas. Fits most pick-up trucks.
$16.00

23
3" Magnet Mount
3" magnet mount with RG58AU stranded center wire, 95% shield. Will
hold 3/8"x 24 thread antenna. Made in the U.S.A.
$12.00

24
5" Magnet Mount
5" magnet mount with RG57AU stranded center wire, 95% shield. Will
hold 3/8"x 24 thread antenna. Made in the U.S.A.
$15.00

25
Nylon Dog Bones/4
Pack of 4 nylon dog bone insulators.
$5.00

26
Ceramic Dog Bones/4
Pack of 4 ceramic dog bone insulators.
$6.00

27
Egg Insulators/2
Pack of 2 nylon egg insulators.
$4.50

28
VHF/UHF SWR/Power Meter
Frequency 120-500MHz, max power 500 watts. Made by Workman
$45.00

29
VHF/UHF SWR Wattmeter
Frequency 120-500MHz, max power 150 watts, 50 ohm. Made by Workman.
$30.00

30
Motorola (NMO) Hub
Motorola hub can be adapted to fit many style of mounts. This is to replace or make your own mount.
$4.00

31
UHF (SO239) Hub
SO239 UHF hub can be adapted to fit many style of mounts. This is to replace or make your own mount.
$4.00

32
Tube Pin Straightener
New Mil Surplus tube pin straightener for 7-9 pin tubes.
$2.00

33
Replacement Mic Cord/Yaesu
Replacement microphone cord for Yaesu radios.
$6.00

34
Replacement Mic Cord/Others
Replacement microphone cord for Kenwood, Icom and others that take phone modual connector.
$6.00

35
SMA Dual Band HT Antenna
Dual band (2m-440) handheld antenna for newer HTs with SMA connection, such as Yaesu VX-5 and others. Very flexible.
$14.00

36
Telescopic 2 Meter HT Antenna
2 Meter (144-148MHz) Super Antenna is base loaded w/ swivel-fold-over base. BNC connector. 1/4 wave when down-1/2 wave when extended (as pictured). SWR 1 1.8, DB gain 3.8.
$13.00

37
Telescopic 2 Meter HT Antenna
2 Meter (144-148MHz) Super Antenna is base loaded w/BNC connector. 1/4 wave down (as pictured)-5/8 wave when extended. 1 1.4 SWR -3.8 DB gain.
$18.00

38
Silver Teflon PL259 (gold tip)
Silver teflon PL259 with gold tip for RG8 coax (accepts reducer for
smaller cable).
$0.90

39
Bakelite PL259
Bakelite center PL259 for RG8 coax (accepts reducer for smaller
cable).
$0.80

40
PL259 Reducers/RG-58
Pack of 3 PL259 reducers for RG-58 cable.
$1.00

41
PL259 Reducers/RG-59/RG8X
Pack of 3 PL259 reducers for RG-59 or RG8X (mini 8) cable.
$1.00

42
Silver PL259 Reducers/RG-58
Pack of 2 PL259 silver reducers for RG-58 cable.
$1.00

43
Silver PL259 Reducers/RG-59/RG8X
Pack of 2 PL259 silver reducers for RG-59 or RG8X (mini 8) cable.
$1.00

44
Right Angle UHF
Right angle male UHF to female UHF
$2.50

45
SO239 Chassis Mount
Four hole SO239 (female UHF) chassis mount connector.
$1.00

46
UHF Double Female Barrel
Female to female UHF barrel connector (SO239 to SO239).
$1.25

47
UHF Double Male Barrel
Male to Male UHF barrel connector (PL259 to PL259).
$1.50

48
UHF Double Female-Single Male T

UHF double female (SO239) - single male (PL259) T adaptor.
$3.00

49
UHF Female T
UHF female (SO239) T adaptor.
$3.00

50
UHF Female to 'F' Male
UHF female (SO239) to 'F' male (TV) adaptor. OUT OF STOCK
$2.00

51
UHF Female to 'F' Female
UHF female (SO239) to 'F' female (TV) adaptor.
$2.00

52
UHF Female to 3.5MM Phono
UHF female (SO239) to 3.5MM phono plug.
$2.00

53
UHF Double Female w/Nuts (1
1" long double female UHF (SO239) with 2 nuts. Aka feedthru.
$1.75

54
UHF Double Female w/Nuts (2
2" long double female UHF (SO239) with 2 nuts. Aka feedthru.
$2.75

55
UHF Double Female w/Nuts (4
4" long double female UHF (SO239) with 2 nuts. Aka feedthru.
$4.75

56
UHF Double Female w/Nuts (6
6" long double female UHF (SO239) with 2 nuts. Aka feedthru.
$6.75

57
UHF Female to Motorola Male
UHF female (SO239) to motorola male. This adaptor fits the scanners.
$2.00

58
UHF Female to 'N' Female
UHF female (SO239) to 'N' female adaptor.
$3.00

59
UHF Male to BNC Female (Amphenol)
UHF male (PL259) to BNC female adaptor. Made by Amphenol.
$3.00

60
UHF Female to BNC Male
UHF female (SO239) to BNC male adaptor. Made to adapt HT to mobile
antenna.
$2.00

61
Mini UHF Male to UHF Female
Mini UHF male (sometimes referred to as Motorola) to UHF female
(SO239) adaptor.
$2.50

62
Mini UHF Male to BNC Female
Mini UHF male (sometimes referred to as Motorola) to BNC female
$2.50

63
Double Male BNC
Male to male BNC adaptor.
$3.00

64
Double Male BNC (Silver)
Male to male BNC adaptor. Silver, Mil Spec
$5.00

65
Double Female BNC
Female to female BNC adaptor.
$2.00

66
BNC Female to UHF Female
BNC female to UHF female (SO239) adaptor.
$2.50

67
BNC Male to RCA Male
BNC male to RCA male adaptor.
$2.50

68
BNC Male for RG58 Cable (Screw)
BNC male for RG58 cable. Screw on (compression fit) type connector.
$2.00

69
BNC Male for RG58 Cable (Crimp)

BNC male for RG58 cable. Crimp-on type (mil spec)
$2.00

70
BNC Male to TNC Female
BNC male to TNC female (cellular) adaptor.
$2.50

71
BNC Female to TNC Male
BNC female to TNC male (cellular) adaptor.
$3.00

72
BNC Female to 'N' Male
BNC female to 'N' male adaptor.
$3.00

73
N' Male to UHF Female
N' male to UHF female (SO239) adaptor. (picture coming soon)
$3.00

74
Double Female 'N'
Female to female 'N' barrel adaptor.
$3.00

75
Double Male 'N'
Male to male 'N' adaptor.
$3.00

76
N' Female to UHF Male
N' female to UHF male (PL259) adaptor.
$3.00

77
9913 'N' Connector
Male 'N' connector w/silver body gold pin teflon insulator for 9913
cable.
$3.00

78
SMA Double Male
Male to male SMA adaptor.
$4.00

79
SMA Double Female
Female to female SMA adaptor.
$3.00

80
SMA Male to BNC Male
SMA male to BNC male adaptor.
$4.00

81
SMA Male to BNC Female
SMA male to BNC female adaptor. Most popular for the newer HT's.
$4.00

82
SMA Male to UHF Male
SMA male to UHF male (PL259) adaptor.
$4.00

83
SMA Male to UHF Female
SMA male to UHF female (SO239) adaptor. Adapts your HT to mobile
antenna.
$4.00

84
SMA Male to 'N' Male
SMA male to 'N' male adaptor.
$4.00

85
SMA Female to UHF Female
SMA female to UHF female (SO239) adaptor.
$4.00

86
SMA Female to BNC Female
SMA female to BNC female adaptor.
$4.00

87
SMA Female to BNC Male
SMA female to BNC male adaptor.
$4.00

88
SMA Female to Mini UHF Female
SMA female to mini UHF female adaptor.
$3.00

89
SMA Female to TNC Male
SMA female to TNC male (cellular) mil spec adaptor.
$5.00

90
UHF Male to 'N' Male
UHF male (PL259) to 'N' Male adaptor.

$3.50

91
N' Female Chassis Mount
N' female chassis receptacle. (4 hole)
$2.00

92
N' Female Chassis Mount (small)
N' female chassis receptacle. (4 hole) small size.
$2.00

93
UHF Male to 'F' Male
UHF male (PL259) to 'F' male (TV) adaptor.
$2.00

94
BNC Male to 'F' Female
BNC male to 'F' female (TV) adaptor.
$2.50

95
BNC Male to 'F' Male
BNC male to 'F' male (TV) adaptor.
$2.50

96
BNC Female to 'F' Male
BNC female to 'F' male (TV) adaptor.
$2.50

97
BNC Female to RCA Male
BNC female to RCA male adaptor.
$2.50

98
BNC Male 50 Ohm Terminator
BNC male 50 ohm terminator (dummy load).
$2.00

99
BNC Right Angle
BNC male to BNC female right angle adaptor.
$2.00

100
BNC Female T
BNC female T adaptor.
$2.50

101
BNC Double Female Single Male T

BNC double female single BNC male T adaptor.
$3.00

102
BNC Male for RG8 Cable
BNC male connector for RG8 cable. Mil spec, packaged.
$3.00

103
TNC Male to 'N' Male
TNC male to 'N' male, silver, mil spec adaptor.
$5.00

104
TNC Double Female Chassis
Double female TNC chassis, mil spec adaptor.
$3.00

105
Female Mic Plug 2 Pin
2 pin metal microphone plug, female.
$2.00

106
Female Mic Plug 4 Pin
4 pin metal microphone plug, female.
$2.00

107
Female Mic Plug 5 Pin
5 pin metal microphone plug, female.
$2.00

108
Female Mic Plug 6 Pin
6 pin metal microphone plug, female.
$2.00

109
Female Mic Plug 7 Pin
7 pin metal microphone plug, female.
$2.00

110
Female Mic Plug 8 Pin
8 pin metal microphone plug, female.
$2.50

111
Male Panel Jack 2 Pin
2 pin metal microphone panel jack, male.
$2.00

112
Male Panel Jack 3 Pin
3 pin metal microphone panel jack, male.
$2.00

113
Male Panel Jack 4 Pin
4 pin metal microphone panel jack, male.
$2.00

114
Male Panel Jack 5 Pin
5 pin metal microphone panel jack, male.
$2.00

115
Male Panel Jack 6 Pin
6 pin metal microphone panel jack, male.
$2.00

116
Male Panel Jack 7 Pin
7 pin metal microphone panel jack, male.
$2.00

117
Male Panel Jack 8 Pin
8 pin metal microphone panel jack, male.
$2.50

118
Super Star Mini Base Mic
Amplified mini base mic wired for 4 pin Cobra CB or equivalent.
$20.00

119
Trunk Lip Mount
Plastic trunk lip mount for 3/8"x 24 thread antenna w/12' RG58
cable-PL259 connector.
$12.00

120
Power Cord/Newer Rigs
Power cord for newer style radios. Double fused-w/both T type
connectors. TEMPORARILY OUT OF STOCK!
$10.00

121
Power Cord/Older Rigs
Power cord for older style radios. Double fused. Two connectors as
shown included.
$15.00

122
Lightning Arrestor
UHF male (PL259) to UHF female (SO239) lightning arrestor w/grounding lug. Allows protection from lightning strikes from radio to antenna.
$3.50

123
T Connectors for Power Cords
Plastic T connectors for power cords for the newer rigs, pins included.
$1.50

124
2 Position Coaxial Switch
2 output coaxial switch with SO239 connections. Frequency up to 600MHz with a power rating of 1000 watts. One position grounds out the other. Heavy duty case.
$16.00

125
3 Position Coaxial Switch
3 output coaxial switch with SO239 connections. Rotary switch type w/off position. Power rating of 1000 watts.
$10.00

126
3" Double Female UHF
3" long double female UHF (SO239) with 2 nuts. Aka feedthru.
$3.75

127
8" Double Female UHF
8" long double female UHF (SO239) with 2 nuts. Aka feedthru.
$8.00

128
10" Double Female UHF
10" long double female UHF (SO239 with 2 nuts. Aka feedthru.
$9.00

129
3' RG8X Jumper w/PL259's
3' RG8X jumper cable with 2 soldered PL259's. OEM/USA, 95% braid, 50 ohm, very high quality.
$5.00

130
6' RG8X Jumper w/PL259's
6' RG8X jumper cable with 2 soldered PL259's. OEM/USA, 95% braid, 50 ohm, very high quality.
$6.00

131
9' RG8X Jumper w/PL259's

9' RG8X jumper cable with 2 soldered PL259's. OEM/USA, 95% braid, 50 ohm, very high quality.
$7.00

132
Extreme Cold Weather Mask..NEW
New Mil Surplus extreme cold weather mask with 2 mouth/nose covers-neck cover. Instructions included.
$3.00

133
All Brass Padlock..Mil Surplus
New in the box Mil Surplus all brass padlock with 2 keys. Made by American Lock, measures 2 1/4" x 1 1/2". All keyed separately.
$5.00

134
Iridite Plated Steel Padlock..Mil Surplus
New in the box Mil Surplus heavy duty rust resistant iridite plated steel padlock with 2 keys. Made by American Lock, measures 3 1/8" x 1 3/4". All keyed separately.
$6.00

135
Phone Block
New mil surplus. Block measures 10" x 2" and has 200 tabs. Part# 101-931-269.
$10.00

136
Tin Plated Copper Ground Strap
Grounding strap measures 9" x 1" with 1/4" hole in attached lugs on each end. New mil surplus.
$2.00

138
2 Extra Large Nuts
Pack of 2 extra large nuts fit the SO239 feedthru connectors.
$1.50

139
5' RG58 Jumper w/BNC's
Mil Surplus 5' RG58 jumper cables with 2 silver BNC connectors. 50 ohm, high quality, gov't. packaging.
$5.00

140
Mini Speaker/Mic fits Yaesu
Mini speaker/microphone fits Yaesu radios/HT's (single pin). Push to talk with 3' cord. Made by Workman.
$10.00

141
Mini Speaker/Mic fits Icom
Mini speaker/microphone fits Icom radios/HT's. Push to talk with 3' cord. Made by Workman.
$10.00

142
Mini Speaker/Mic fits Kenwood
Mini speaker/microphone fits Kenwood radios/HT's. Push to talk with 3' cord. Made by Workman.
$10.00

143
Lapelle Speaker/Mic fits Yaesu
Medium sized (2 1/2" x 1 1/4") clip-on speaker/microphone fits Yaesu radios/HT's (single pin). Push to talk with coiled cord. Made by Workman.
$14.00

144
Lapelle Speaker/Mic fits Icom
Medium sized (2 1/2" x 1 1/4") clip-on speaker/microphone fits Icom radios/HT's. Push to talk with coiled cord. Made by Workman.
$14.00

145
Lapelle Speaker/Mic fits Kenwood
Medium sized (2 1/2" x 1 1/4") clip-on speaker/microphone fits Kenwood radios/HT's. Push to talk with coiled cord. Made by Workman.
$14.00

146
Lg. Lapelle Speaker/Mic fits Yaesu
Large sized (3" x 2") clip-on speaker/microphone fits Yaesu radios/HT's (single pin). Push to talk with coiled cord-earphone plug-in. Made by Workman.
$16.00

147
Lg. Lapelle Speaker/Mic fits Icom
Large sized (3" x 2") clip-on speaker/microphone fits Icom radios/HT's. Push to talk with coiled cord-earphone plug-in. Made by Workman.
$16.00

148
Lg. Lapelle Speaker/Mic fits Kenwood
Large sized (3" x 2") clip-on speaker/microphone fits Kenwood radios/HT's. Push to talk with coiled cord-earphone plug-in. Made by Workman.
$16.00

149
Pack of 10 Silver Teflon PL259s

SPECIAL Pack of 10 Silver teflon PL259 with gold tip for RG8 coax (accepts reducer for smaller cable).
$8.00

150
9 ft. RG8X Jumper w/PL259
SPECIAL$1.00 off 9ft. RG8X jumper cable w/PL259 connector. American made w/95% braid. Reg. $7.00, now $6.00.
$6.00

151
'Hershey Kiss' 2M Antenna
Rare Earth magnetic mount 1/4 wave 2M (144 to 148MHz) with 9' of RG174 cable with a BNC connector, ready for hook-up to your HT. Unity gain and will handle up to 50 Watts. Magnetic base resembles a Hershey Kiss but is very strong. Very inconspicuous and great for traveling.

218. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 00:27:47 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <7inKb.11016$6B.7414@newsread1.news.atl.earthlink.net>
Source record: 102291

Reg:

[snip]
> Perhaps after the festivities you are feeling too lazy to
> satisfy your own curiosity by exercising your brain cells. ;o)
[snip]

Ahem... well I do admit to imbibing during the Holiday, but I feel that at least
20% of my brain cells are still intact which should enable me to pass the next generation of ham radio exams with no problem. :-)

[snip]
> But I guess this is the first occasion on which you have been confronted
> with the *distributed* variety and have been brought to a sudden dead stop.
[snip]

Well yes and no!

Even tho,. for professional reasons, I have extensive transmission line modelling
software [self-developed] which supports extremes of complex Zo and distributed
losses with various loss distributions along the lines, I have never used these
computer codes/algorithms to simulate antennas.

[My professional applications of these codes, written in Fortran, have been for broadband
digital subscriber loop, DSL, BRA ISDN and cable modem transmissions over telco local
loops. i.e. upwards of 1000 to18,000 feet of twisted pairs of mixed guages and dielectrics,
with bridged taps etc. These codes allow for empirical fits to primary parameters, R, L, C and G
as functions of frequency and other effects, etc... I had posted on this NG some of the models
developed by several contributors to the ANSI T1E1.4 Standards Committee over the past
few years sometime in the last year or so if you recall.]

Clearly such software/algorithms which are sort of like finite element analysis methods breaking
the lines into incremental sections and summing the results, etc... and can also be used to simulate

the driving point impedances and losses, both disipative and radiative, of antennas as you suggest.

Until your posting I had never fully thought through what the distribution of radiative losses
on antenna structures should be...

[snip]
> Or 2, leave the wire resistance where it is and distribute the radiation
> resistance along the wire. We have no choice about the type of
> istribution - it must be the same as the wire resistance is istributed -
> i.e., uniformly.
:
:
> Whatever we do we cannot avoid transforming from a lumped to distributed
> resistance value, or vice-versa. Electrical engineers do it all the time.
> In the case of a dipole there are several ways. But its a simple process
> and the result is amazingly even more simple.
:
:
> The equivalent lump of resistance located at the centre (where 1 amp flows)
> turns out to be exactly half of uniformly distributed end-to-end resistance
> of the wire. In fact, that's exactly how the radiation resistance of the
> usual 70-ohm lump got itself into a dipole's feedpoint. It is exactly half
> of 140 ohms. If radiation resistance itself had any say in the matter I am
> sure it would prefer to be nicely spread along the length of the wire
> instead of being stuck in a lump next to the feedpoint.
>
> If the end-to-end wire loss resistance is R ohms then the ficticious
> equivalent lump at the centre feedpoint is exactly R/2 ohms. So easy to
> remember, eh?
[snip]

Yes it sure is!

[snip]
> In fact, it is the pair of 1/4-wave, open-circuit, single-wire lines
> constituting the dipole which transform the uniformly distributed wire loss
> resistance to the equivalent lumped 1/2-value input resistances as measured
> at the dipole centre. And, of course, the antenna performs exactly the same
> transformation on an antenna's uniformly distributed radiation resistance.
> I sometimes feel sorry for things which find themselves securely locked in,

> constrained for ever to obey the irresistible laws of nature, helpless to
do
> othewise, for ever.
>
> See how the interlocking bits of the jig-saw puzzle now fit very nicely
> together.
[snip]

Linear distribution...

Yes, now with your simple, yet very clear explanation, I now see that,
thanks!

[snip]
\> use - it would never correspond to an actual antenna. When calculating
> efficiency of wire antennas it seems only a uniform distribution of
> resistance is of any use. An investigator has no choice in the matter.
[snip]

Hmmm... I'm just thinking... that may not always be the case!

What about certain kinds of travelling wave antennas. i.e. a V-beam,
or a rhombic, etc... which are transmission lines with an ever changing
spacing between the elements. Surely the radiation resistance along such an
antenna/transmission line is not distributed uniformly even tho the
dissipative
losses are!

Thanks again for your lucid reply, I am indebted to you for refreshing
some of my *besotted* brain cells... hmmm, I wonder is it the
reds or the whites that cause most of the brain cell damage?

I'm gonna go try some of my homebrew transmission line software on
some antenna problems and see how it does...

Best Regards for the New Year.

--
Peter K1PO
Indialantic By-the-Sea, FL

219. Re: Low budget in-house cellular repeater project questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 00:28:45 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <db6dnQfWr8EEa2SiRVn-hw@ctc.net>
Source record: 102287

"Mark Atanovich" <m.atanovich@cox.net> wrote in message
news:k7eKb.26608$i55.6640@fed1read06...
> Big Yagi:
>
>
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3069166733&category=41298
>
> Is this BS or is this kind of gain at least theoretically possible?
>

Most likely big BS . I did not see what the db was related to. The biggest Yagi I could find in a quick search of my material at home that I have any faith in is 40 elements and 20.8 dbi is all that it has. That is almost 3 times as many elements as the ebay antenna. Assuming almost a perfect antenna it would hav to have a boom of over 30 wavelengths to get to 24 dbi.

The antenna may well have 36 db of gain over the internal antenna of the cell phone. If you cup your hand around a cell phone you may loose the 20 or more db of gain. That and about 15 dbi of gain that a 15 element beam will have may be close to the 36 db of antenna gain.

Any antenna that gives much over 10 to 15 db of gain is not to be trusted. Some will do that but not many that are on the market and you have to know the physical size (boom lenght) to get a good estiment.

220. Re: Delphi QFM-9 vs RS 6-element for FM Stereo?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 00:54:44 UTC
From: Ed Light <nobody@nobody.there>
Message-ID: <mHnKb.52195$BQ5.34283@fed1read03>
Source record: 102292
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx

I can't move the antenna in this trailer park, so my only option is a bigger one. The signal has cleared up the past couple of days, and I'm hoping it's more than the weather.

The transmitter is about 30 miles away behind some mountains. I'm pointed at an aluminum building that's in the next lot. The receiver sees the station as "dx" rather than local.
--
Ed Light

Smiley :-/
MS Smiley :-\

Send spam to the FTC at
uce@ftc.gov
Thanks, robots.

221. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 01:07:14 UTC
From: zindazenda <zen@lineisp.co.uk>
Message-ID: <1073351235.253100@smtp-1.griffin.com>
Source record: 102293
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

hi there..

think i will put my pennys worth in here...

do away with the long wire altogether..you will proberly never get rid of
the rf in shack etc..due to being too high above gnd..i know i have tried..i
live in an apartment (3rd floor)..no garden or land..i have tried end feed
long wire from balcony to lamp post etc..rfi to phones stereo etc..BAD

i tried all the tricks in the book no go...
SO.. i chatted my neighboors up and have been using successfully for 4 years
now a full sized 10m-80m diople (trapped with 40m trapps.)its slung up at 3
points in the shape of a triangle each courner on someone elses
apartment..the coax feed is rolled up 6 times 6inches dia just before diople
feed point..i have hung seperate dioples for 18mhz.28mz below main diople to
help on those bands ..
i have had NO tvi/stereo i/ phone i etc atall (touch wood)..i am using full
size diople but not out straight so you could too, espically as you have a
garden!!!
and have worked much dx all over the world with 100w ssb...

so if you give up with the long wire (as i did) try this..its cheap too..and
the antenna is in about every antenna handbook..)

simon g0zen
"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:3ff71b75_6@corp.newsgroups.com...
> Vaughn Combs wrote:
> > Any ideas would be GREATLY appreciated.
>
> To effectively avoid RF in the shack, the differential currents need
> to be balanced (equal in magnitude and 180 degrees out of phase). It
> is extremely difficult to do that with an inv-L. I had good luck with
> a dipole even though the shack was under one end of the dipole. I
> brought the ladder-line off at right angles for about 50 ft then
> routed ladder-line back to the shack from there so ladder-line
> parallel to the antenna was always about 50 ft away from the antenna.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

222. Re: AV-18VS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 01:10:15 UTC
From: David L Thompson <thompson@mindspring.com>
Message-ID: <XVnKb.11079$6B.10951@newsread1.news.atl.earthlink.net>
Source record: 102294

The AV-18VS is a 18 foot base loaded vertical that can be tapped to match any frequency between 3.5 and 30 Mhz. I used one on a portable push up mast with three short radials as a ground plane. Works OK on 10 to 20 meters marginal on 40 and not effective on 80. I did have two of them that I put together (back to back) to use as a rotatable dipole on 75. At 75 feet they worked about as well as dipole at 40 feet.

73 Dave K4JRB

paulalce <paulalce@m3pba.freeserve.co.uk> wrote in message news:bt9iut$8cu$1@news7.svr.pol.co.uk...
> Has anyone used the hygain AV-18VS.
> if so what are your thoughts.
> Cheers
> paul
> m3pba
>
>

223. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 01:12:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btd22opjv1@titan.btinternet.com>
Source record: 102295

"Art Unwin KB9MZ" wrote
> Very, very good Reg.

==========

Art, nice to hear from a representative of the few who agree with what is the bleeding obvious.

I am aware of your long outstanding problems about convincing folks of the properties of your loop-coupled antenna proposals.

But I am too exhausted and too long-in-the-tooth to take part in the (by far) unecessarily convoluted arguments.

Try KISS. Provide a precise, unambiguous picture of all dimensions and submit it to a program capable of analysing it - if you can find one. I am unable to provide any assistance myself in that direction.

May you and yours enjoy life in 2004 to the full.

Yours, Reg, G4FGQ.

224. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 02:11:14 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <6PoKb.22155$lo3.9984@newsread2.news.pas.earthlink.net>
Source record: 102296
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

More info....

http://www.caves.org/grotto/nag/html/harness.html

225. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 02:13:15 UTC
From: "Ed G." <Spectrumhog@_REMOVE_StarBand.net>
Message-ID: <Xns9467B967522BBFrog207Junocom@148.78.248.75>
Source record: 102297
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

> Can any of you antenna pros out there tell me what would be the
> expected life span for a Cell Wave 4 element vertical dipole?

1. Its "Celwave", not "Cell Wave". (Search also "RFS Celwave")

2. Celwave was formerly Phelps Dodge.

3. The model you want for 2 meters is the PD340-3.

4. A properly installed antenna with properly installed and sealed
feedlines will probably last longer than you.

> Second question. I recognize that Cellwave has an excellent reputation.
> Are there any other antenna companies that may compare or exceed
> Cellwave antenna products in performance and durability?

Other comparable manufacturer are Andrew, Sinclair, and Decibel
Products. Quality is comparable amongst all.

Ed WB6SAT

226. Re: Why does this work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 02:38:08 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <3ffa2348_1@news1.prserv.net>
Source record: 102298

Harlan:

You have made two minor missteps, but they have major repercussions. They are due to some fundamental misunderstandings of radio technology, as with almost all beginners. Fortunately, both are simple fixes.

First, by not properly connecting the shield of the coaxial cable, it becomes an unwanted part of the antenna, and its proximity to stuff in the house is picking up noise. Since the house is (sort of) shielded, it is also likely to not picking be up any useful signals. The shield of the coax needs to be "terminated", that is, connected to the correct *something* on both ends.

Second, the input circuits of portable radios are a compromise. They are optimized for the whip where it is internally connected, but a different circuit is connected to the antenna input jacks to accommodate the stronger signals which will come from a *better* antenna. Connecting the *better* antenna to the whip simply detunes and overloads the front end. It will accept some higher level signal, and this occurs when approaching the whip with these various attachments to the end of the coax, but a the ability to accept a direct connection of a good antenna to the whip is simply not provided for in the design.

Now, changes needed. You could make the two headed plug as Bob suggests, or get the appropriate adapter for one of the radios so one plug will fit either. I am at a loss to imagine what is different, unless one is 1/8" and the other 3/32", and if so there indeed are adapters. Now, make sure the shield of the coax is connected to the second terminal in the plug, which will be coupled to the radio common inside the radio. If necessary to physically install the tiny plug on the RG-59, short pieces of insulated hook up wire can be used, just be sure to connect the shield to the sleeve of the plug, and the center conductor to the tip.

Then, go up to the attic with another 40 feet of wire. Connect it to the shield up there, and stretch it out as much as possible away from the existing wire. If the attic is small, a more effective installation might be to zig-zag both halves of the dipole so it is nearly balanced in configuration. Don't worry about the wire being straight, the electrons won't care.

These two changes should couple a cleaner signal into the intended high level input of each receiver.
--
Crazy George
Remove N O and S P A M imbedded in return address

227. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 03:05:00 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <wBpKb.761293$Fm2.719327@attbi_s04>
Source record: 102299

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:btd22opjv1@titan.btinternet.com...
> "Art Unwin KB9MZ" wrote
> > Very, very good Reg.
>
> ==========
>
> Art, nice to hear from a representative of the few who agree with what is
> the bleeding obvious.
>
> I am aware of your long outstanding problems about convincing folks of the
> properties of your loop-coupled antenna proposals.
>
> But I am too exhausted and too long-in-the-tooth to take part in the (by
> far) unecessarily convoluted arguments.
>
> Try KISS. Provide a precise, unambiguous picture of all dimensions and
> submit it to a program capable of analysing it - if you can find one.

Reg, no need for help as it is all completed with success.
I may add. I used AO PRO to do the final wrap up as well as making the
antennas which in uncompromising fashion proved what you are stating but
what other people have been unable to understand .
And I have made many different antennas of this family.!
I might add that with shorting either capacitor one can change a "T match
style antenna "to other forms that provide for high or low impedance at the
antenna feed point. to meet requirements of the transmitter.as well as
providing a ' loss less' interface, a subject that has been bandied around
for years but in isolation.
I am sure glad however, to see a dissertation such as yours that was
unsolicitated even tho it may finish up as a 'Plonk" on this side of the
Pond as many times the obvious is ignored until it apears in a book
Hopefully you will able to withstand the junk that will now be thrown at
you for stating such an outrageous thing.
Cheers
Art

I am
> unable to provide any assistance myself in that direction.
>
> May you and yours enjoy life in 2004 to the full.
> ----
> Yours, Reg, G4FGQ.
>
>

>
>

228. HAMS in or near EVERGREEN, COLORADO

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 03:19:15 UTC
From: secondhandmarklin@yahoo.com
Message-ID: <174d01b4.0401051919.fe422c6@posting.google.com>
Source record: 102300

If you live in or near Evergreen, Colorado, this will be of interest to you. The initial meeting of Evergreen hams is tentatively set for Tuesday January 13th at the Evergreen Sports Grill. Contact Roger k0yy at k0yy@arrl.net for more information or give him a call on the 146.07/67 repeater.

There is nothing to join and there are no dues...just show up.

See the letter below.

> Howdy all,
>
> A number of area hams have met on the air and mentioned that they would
> enjoy getting together with local hams sometime for a cup of coffee or lunch
> or dinner. Several folks mentioned that the Sports Bar and Grill is pretty
> centrally located and easy to find.
>
> So, why doesn't everyone "reply to all" and propose a time and day. Early
> evening during the week or a Saturday morning may be the best time. There is
> never a good time for everyone, so we'll just pick the "best" time. If there
> is sufficient interest we could do it again and vary the time and date so
> more folks can attend.
>
> It's interesting, when you do a zip code search for our area on QRZ; there
> are more than 150 hams in the Evergreen, Conifer, and Kittredge area. There
> are lots of hams up here living in all the various nooks and valleys.
>
> Do you know a local ham that would enjoy attending? Invite them and pass
> along their email address so we can add them to the broadcast group.
>
> I almost always monitor 146.67, the Castle Rock System up on Squaw Mountain.

> Drop by and say hello or list a get together preference.
>
> Happy 2004 and 73,
>
> Roger K0YY and Marilyn KB0LJW Krautkremer
> Evergreen, CO

PLEASE REPLY TO: k0yy@arrl.net

229. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 03:58:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btdboq$902$1@titan.btinternet.com>
Source record: 102301

Peter,

To satisfy yourself that a half-wave dipole automatically transforms end-to-end wire resistance to an equivalent lumped resistance of half its value located at the dipole centre, use program RJELINE3. It takes only a few seconds.

Enter F = 10 MHz, Open-wire line length = 7.5 metres = 1/4-wave.

As everybody knows a 1/4-wavelength of line (a half dipole), behaves as an impedance transformer.

Any value Zo of open wire line will do. But try Zo around 500 ohms with thin wire such as 0.2mm diameter.

Terminate the line with 99999999 + j99999999 ohms, ie., open circuit just like the dipole ends.

Loop-ohms per metre of the wire is one of the computed results.

Another computed result is exact line length in wavelengths.

Vary line length until it is exactly 1/4 wavelengths.

The input impedance of the 1/4-wave length of open-circuited line is also calculated and displayed.

It will be found that at exact resonance (vary length or frequency very finely) the input impedance of the line will be a pure resistance (jXin = 0) equal to half of the of the line end-to-end wire resistance.

It is obvious exactly the same transformation occurs when the wire resistance is replaced by a uniformly distributed radiation resistance.

If your own programs significantly disagree then consign them to the junk box.

As you may have noticed I never support my stuff by citing the usual old wives. Never come across, even heard of most of 'em. There are no references except my tattered note books. I came across various useful relationship around 1960 when researching into methods of locating faults on oceanic phone cables. But I daresay Heaviside preceded me. I dug up much information and designed fault locating and other test equipment but very little was published beyond contract manufacturing information. There were two articles in the house engineering journal. I worked alone with a small group of assistants, a lab and a workshop. I did present a series of lectures afterwards, twice in Europe. But it was all just in a day's work with occasional trips aboard cable laying ships and at manufacturers. The nearest

I got to the States was Newfoundland and Nova Scotia. I then shifted in succession to several entirely different fields of operations. But no experience is ever lost.
--
Reg, G4FGQ

230. Re: Antenna builders --- a caution

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 04:01:28 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <sqqKb.252$4v7.121@newssvr29.news.prodigy.com>
Source record: 102302
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Kï¿½HB wrote:
> More info....
>
> http://www.caves.org/grotto/nag/html/harness.html

Thanks, I'll be sure to never build or erect any of my antennas inside a cave... :>)

73 de W6DKN

231. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 04:06:37 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <hvqKb.11362$6B.6653@newsread1.news.atl.earthlink.net>
Source record: 102303

Art:

[snip]
> Reg, no need for help as it is all completed with success.
> I may add. I used AO PRO to do the final wrap up as well as making the
> antennas which in uncompromising fashion proved what you are stating but
> what other people have been unable to understand .
[snip]

Art, you can't blame others for not understanding! What?

It is your responsibility and your's alone to help others to understand
your ideas, concepts, inventions.

Any failure of others to understand is your responsibility alone!

There are three important things in science:

Communications, communications and communications. Clearly *you* have
failed to communicate.

If you communicate clearly and succinctly without whining and do so clearly
and unequivocally and stop complaining that no one understands you, why...
then you may succeed! I for one certainly wish you well in that regard.

[snip]
> I am sure glad however, to see a dissertation such as yours that was
> unsolicitated even tho it may finish up as a 'Plonk" on this side of the
> Pond as many times the obvious is ignored until it apears in a book
[snip]

Not true at all. Reg is quite capable of explaining himself and no one
that I know of feels that Reg's contributions to the NG are "plonk".
Apparently you might!

[snip]
> Hopefully you will able to withstand the junk that will now be thrown at
> you for stating such an outrageous thing.
> Cheers
> Art
[snip]

Reg has proven that he can withstand criticism, questioning, and
examination,
he has demonstrated that many times over on this NG... he needs no help or
appeals to the lack of ability of readers and listeners. Art, wake up and
smell
the roses and practice: Communicatons, communications, communications...

:-)

You are doing better, but... you have come very close to whining again here...

If no one understands you, it is your fault!

"Perception is Reality" -Tom Peters

Best regards for the New Year,

--
Peter K1PO
Indialantic By-the-Sea, FL.

232. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 04:07:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btdc9f$9e8$1@titan.btinternet.com>
Source record: 102304
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Always begin with the most simple of antennas. Otherwise you'll have
nothing to make comparisons with. You will have no base or foundation
standard.

Spend a couple of hours stringing up a 150 feet inverted-L and use it on all
bands for a few weeks. That is if you can wrench youself away from it.

Reg, G4FGQ

233. Re: Delphi QFM-9 vs RS 6-element for FM Stereo?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 04:13:31 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <3ffacf2d_4@news1.prserv.net>
Source record: 102307
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx

Ed:

I would sure try different orientations first. Having to use a reflected signal is indicative of a poor path, of course. See if there is another direction which gives more reliable stereo decoding, which may not necessarily be the strongest signal. Stereo decoding is indicative of the fewest multipath contributions, and may be in a different direction entirely. Also, try changing the polarization of the antenna, although making it vertical will be difficult, as running a mast and feedline in the same plane as the elements will pretty much destroy the performance. It will likely need a mounting which is mechanically impractical in your situation.

--
Crazy George
Remove N O and S P A M imbedded in return address

234. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 04:45:22 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <C3rKb.11437$6B.186@newsread1.news.atl.earthlink.net>
Source record: 102305

Reg:

[snip]
> Vary line length until it is exactly 1/4 wavelengths.
>
> The input impedance of the 1/4-wave length of open-circuited line is also
> calculated and displayed.
>
> It will be found that at exact resonance (vary length or frequency very
> finely) the input impedance of the line will be a pure resistance (jXin =
> 0) equal to half of the of the line end-to-end wire resistance.
>[snip]

This is *exactly* what my [and other's as well] line analysis computer
programs do for the analysis of so-called "bridged taps".

"Bridged taps", which are sections of open circuited transmission line
bridged across an operational transmission line, are quite common
in telephony practice. They are often placed deliberately to allow
for extra extension/party lines, or are inadvertently left in place once
a line is taken out of service. There are often several bridged taps
on a given line. These bridged taps don't affect telephony [audio] but
wreak havoc at higher frequencies for broadband signals. For
frequencies where the bridged taps represent a 1/4 wavelength, they
act as traps or notches and "suck out" the desired energy on the main
line. As such bridged taps can ruin the performance of digital subscriber
loops aka "DSL" such as ADSL/VDSL, etc. because they punch holes
in the transmission band. Several companies, and consultants
such as myself, have transmission line programs to evaluate broadband
transmission over lines with cascades of multiple guages/dielectrics and
several bridged taps. In fact several such "standard" line makeups
for evaluating the performance of DSL systems are published
in the Standards literature [ANSI T1E1.4]. My Fortran computer codes
must perforce analyze such 1/4 wave, or any wavelength for that
matter, stubs quite accurately to predict multi-megabit transmission
performance over several thousand feet of such impaired lines. :-)

But until your posting I had never thought to use them to analyze
the driving point impedances of antennas. Neat application!

[snip]
> If your own programs significantly disagree then consign them to the junk
> box.
[snip]

Can't do that now, since literally millions of DSL modems are now running around the world over lines that have been accurately analyzed using those programs, hence they must be "right". I still use the programs in my consulting
practice for client companies designing DSL modems who use my services.

I have never used these programs to simulate antennas yet, gotta do that just for fun... I can set any arbitrary distribution of radiation resistance
along the line in series with the primary parameter R(f) [of R(f), L(f), C(f)
and G(f)] and so uniform distribution should be easy.

[snip]
>. There are no references
> except my tattered note books. I came across various useful relationship
> around 1960 when researching into methods of locating faults on oceanic
> phone cables.
[snip]

Well you certainly predate me, I only started developing my transmission line
analysis programs around 1971 or so and have kept *improving* them over the years, mostly to make contributions to my employers, clients and various transmission standards committees [ANSI, ITU, ETSI, IEEE].

[snip]
> But I daresay Heaviside preceded me. I dug up much information
> and designed fault locating and other test equipment but very little was
> published beyond contract manufacturing information. There were two articles
> in the house engineering journal. I worked alone with a small group of
> assistants, a lab and a workshop. I did present a series of lectures
> afterwards, twice in Europe. But it was all just in a day's work with
> occasional trips aboard cable laying ships and at manufacturers. The nearest
> I got to the States was Newfoundland and Nova Scotia. I then shifted in
> succession to several entirely different fields of operations. But no
> experience is ever lost.
[snip]

Same here, as you know... I am a "fan" of Oliver's myself... and most of my work in this area was done "in house" for various clients and never published. Many times I felt that such work was "all done" and I was ready to retire it all only to have it called back into service with each round of higher
bandwidth systems... for various reasons detailed cable/transmission line analysis seems to come back into favor every decade or so... these days it is a sadly neglected subject in "skul" curricula and are few "young turks" who can handle such problems, and so we "old farts" can't retire just yet. :-)

Newfie and Nova Scotia, eh? Wonderful place in the summer. My wife and I have a condominium overlooking Halifax harbour and we spend part of the summers there. My Mom was/is a Newfie and I was born in Halifax, Nova Scotia myself, although we are both now all fully certified "Americans".

Did you work for Cable and Wireless at one time?

I suppose you might even have sailed on the "Cyrus Field", no?

Long live the "Telegraphist's Equations"!

--
Peter K1PO
Indialantic By-the-Sea, FL.

235. Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 15:00:51 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <bteiis$62h3e$1@ID-213023.news.uni-berlin.de>
Source record: 102306

I'm planning on putting up a MFJ G5RV antenna on the
flat roof of my 3 story apt building. I will be putting it up
as an inverted V on a 10 foot mast. Can't go any higher
do to landlord restrictions (hey - at least he's letting me
put the thing up - nice guy).

Problem is that the building is only 54x40 so the ends
of the G5RV will hang off the roof, half square style.

I've got trees and a tall fence outside the building that
can support the ends of the antenna but that would
mean bending the G5RV horizontally (tree NW of the
building, fence NE of the building)......

Question is should I use the supports or keep the ant
straight and let the ends droop? Actually, only 1 end
would droop as I could use the tree for support on the
other end - there is just no support on the SE side.

I know, I know.......stupid question - I should know
better. :-)

Ken KG0WX

236. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 15:43:27 UTC
From: jder8745@aol.com
Message-ID: <20040106104327.29482.00001752@mb-m02.aol.com>
Source record: 102308

Crazy George sed:

"At 15', you are in the near field of any HF antenna. You do not want your
station to be in the near field of the antenna. All kinds of undesirable
and often unpredictable things happen."

Kind of rules out mobile operation.

Of course the metal body of the vehicle probably shields the station from the
effects of the near field.

73 de Jack K9CUN

237. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 16:42:13 UTC
From: Stef <vee_ee_too_oh_doubleyou_ell@rac.ca>
Message-ID: <fnolvvk00cfbrv46kcd1s3a7jkgk7ckhau@4ax.com>
Source record: 102309

I think, with your situation, you should not put up a G5RV. Because it needs a vertical portion of about 32 ft straight up for the flat line. Unless you planned to let the flat line go straight down on the side of the building, a bit away from the walls (18 inches ?) .

You should try to put up a 130 ft wire dipole instead, with a balun, good coax and a tuner. Then you can do whatever you please with the ends of the wire.

Can you put your 10 ft support on one side of the building and attach one end of the dipole to the other side of the building and the other end in the tree ?

238. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 17:12:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffaed06_7@corp.newsgroups.com>
Source record: 102310

Ken Bessler wrote:
> I know, I know.......stupid question - I should know
> better. :-)

Hi Ken, a lot of us answer our own similar questions
by modeling the antenna. A free demo version of EZNEC
is available at www.eznec.com
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

239. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 17:34:08 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <bteri9$6d88v$1@ID-213023.news.uni-berlin.de>
Source record: 102311

"Stef" <vee_ee_too_oh_doubleyou_ell@rac.ca> wrote in message
news:fnolvvk00cfbrv46kcd1s3a7jkgk7ckhau@4ax.com...
> I think, with your situation, you should not put up a G5RV. Because
> it needs a vertical portion of about 32 ft straight up for the flat
> line. Unless you planned to let the flat line go straight down on the
> side of the building, a bit away from the walls (18 inches ?) .
>
> You should try to put up a 130 ft wire dipole instead, with a balun,
> good coax and a tuner. Then you can do whatever you please with the
> ends of the wire.
>
> Can you put your 10 ft support on one side of the building and attach
> one end of the dipole to the other side of the building and the other
> end in the tree ?

So, an antenna such as the Van Gorden "All Bander" would be a
better choice? I have a tuner - LDG Z100 and I made a "Balun"
by making a 5" dia 12 turn coax choke. I kinda like the idea of
the all bander antenna because 1) it has more wire and 2) it has
a longer ladder line, allowing it to reach my window. That way,
my feedpoint would only be 7 feet from the tuner (less loss in
the rg-58 coax).

Ken KG0WX

240. Re: Why does this work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 17:47:22 UTC
From: richardharrison@webtv.net
Message-ID: <10707-3FFAF4AA-224@storefull-2316.public.lawson.webtv.net>
Source record: 102312

H. Davis wrote:
"How will it improve reception relative to just the whip (which is kind of useless in the basement anyway)?

Your coax can be used as a transmission line, instead as part of the antenna, to bring above ground signals into your basement while shielding against noise inside your house if connected to a balanced antenna somewhat removed from noise sources. Noise will appear as common-mode in many cases balancing out in a coupling coil.

For a receiving antenna, a small inexpensive toroidal ferrite core appropriate to the frequency of your receiver may be used on which to wind a primary of an antenna coupling transforner. The secondary will be the whip antenna itself.

The 19th edition of the ARRL Antenna Book shows a noise bridge for 1.8 to 30 MHz on page 27-24. The bridge generator is connected to the bridge detector (receiver) and to the unknown impedance (antenna) via a broadband toroidal transformer. This core would be right to couple coax to a whip antenna except for its size and shape. It is a small binocular core. All that`s needed to couple to a receiver whip antenna is a ferrite ring with enough diameter for 3 or 4 turns of # 30 or so enameled wire leaving enough hole space to be impaled over either of the two whips.

The core used in the noise bridge is an Amidon BLN-43-2402. The material is obviously apropriate for 1.8 to 30 MHz. I don`t have an Amidon catalog handy but for sure the material is available in a simple ring.

Simply wind the coil around the ring and connect it your coax. Connect a balanced antenna to the other end of the coax. The antenna should be placed away from noise sources and placed in the field of desired signals. Slip the ring over the whip of the receiver you want to use with an external antenna. That`s it! You may need a balun at the balanced antenna for minimum noise.

The whip forms a complete circuit through its capacitance to the earth and to the radio circuit board or chassis. It is a 1-turn secondary on the toroidal antenna transformer. Its operation is akin to an a-c clamp-on ammeter.

This system has been used to couple a transmitter to a grounded transmitting tower. For transmission, air was used for the core of a large toroidal coil surrounding the tower. To tightly couple the coil to the tower, the coil`s reactance was tuned out with a series variable capacitor. This has a disadvantage of the tuned circuit type. It has a

narrow bandpass. For reception, you likely don`t need tight coupling as gain is usually surplus in your receiver. You need signal to noise ratio.

Toroidal coupling systems are not found in standard broadcasting stations because the large toroid would be expensive, and difficult to construct and insulate. It would also slice away the medium-wave higher-frequency sidebands, limiting audio frequency response of the station.

Untuned, the toroid coil coupling is tight enough for a high gain receiver and bandwidth is sufficient for a 1.8 to 30 MHz noise bridge or receiver.

Best regards, Richard Harrison, KB5WZI

241. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 18:14:01 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btetu1$6uou$1@news3.infoave.net>
Source record: 102313

I would venture to say we all operate in the near field. How does one avoid it, particularly on 160 meters?

"JDer8745" <jder8745@aol.com> wrote in message news:20040106104327.29482.00001752@mb-m02.aol.com...
> Crazy George sed:
>
> "At 15', you are in the near field of any HF antenna. You do not want your
> station to be in the near field of the antenna. All kinds of undesirable
> and often unpredictable things happen."
> ---------------------------------
>
> Kind of rules out mobile operation.
>
> Of course the metal body of the vehicle probably shields the station from the
> effects of the near field.
>
> 73 de Jack K9CUN

242. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 18:28:23 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <stulvv4bv0ub93qds8c9egfleeqvhfnm14@4ax.com>
Source record: 102314

On Tue, 6 Jan 2004 10:34:08 -0700, "Ken Bessler"
<kg0wxIHATESPAM@yahoo.com> wrote:

>
>"Stef" <vee_ee_too_oh_doubleyou_ell@rac.ca> wrote in message
>news:fnolvvk00cfbrv46kcd1s3a7jkgk7ckhau@4ax.com...
>> I think, with your situation, you should not put up a G5RV. Because
>> it needs a vertical portion of about 32 ft straight up for the flat
>> line. Unless you planned to let the flat line go straight down on the
>> side of the building, a bit away from the walls (18 inches ?) .
>>
>> You should try to put up a 130 ft wire dipole instead, with a balun,
>> good coax and a tuner. Then you can do whatever you please with the
>> ends of the wire.
>>
>> Can you put your 10 ft support on one side of the building and attach
>> one end of the dipole to the other side of the building and the other
>> end in the tree ?
>
>So, an antenna such as the Van Gorden "All Bander" would be a
>better choice? I have a tuner - LDG Z100 and I made a "Balun"
>by making a 5" dia 12 turn coax choke. I kinda like the idea of
>the all bander antenna because 1) it has more wire and 2) it has
>a longer ladder line, allowing it to reach my window. That way,
>my feedpoint would only be 7 feet from the tuner (less loss in
>the rg-58 coax).
>
>Ken KG0WX
>

The longest dipole you can put up, fed entirely with ladderline to
your coax choke/auto tuner, would probably be your best bet for a
multi-band antenna. Check the Wireman's web site for his dipole
antenna kit -- has all the pieces you need.

Bob
k5qwg

243. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 18:28:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bteuoh$q0p$1@sparta.btinternet.com>
Source record: 102315

Peter,

Soon after WW2 the Cable & Wireless company was 'nationalised' and became a part of the British General Post Office. The GPO, in effect, was a giant government department with 250,000 employees world wide. At its head was the Postmaster General, a politician, a minister of government next in authority to the prime minister (Clement Attley who had usurped Churchill). All other employees, including the usually distinguished Engineer-in-Chief, down to postmen, telegram boys on motor bikes and pretty female telephone operators were civil servants.

C&W was the GPO's overseas arm distributed around the far-flung Empire on which the sun never set. As the whole of my 40 years telecoms career was with the GPO (later British Telecom and The Royal Mail to be asset-stripped by Mrs Thatcher) you might say that for a period I was a C&W employee. At any rate we were all contributing to the same pension scheme.

One of the Engineer-in-Chief's domains was his Research Department based at Dollis Hill, N.London. It was the British renowned equivalent of Bell labs. Formally I was a member of the E-in-Chief's Cable Test Section, a non-descript name which covered a multitude of sins. I once met Josephson of Junction fame with some of his equipment in a broom cupboard under the stairs at DH. But at that time research was being concentrated on submerged deep-sea repeaters, reliablity of thermionic tubes, and on a new, light-weight oceanic cable with its strength member being the coaxial inner conductor itself. It consisted of a bundle of high-tensile steel wires covered with a seamed copper tape. I designed the mobile transmission test equipment used at the cable factory in Southampton docks. To determine temperature coefficients of line loss and other properties the last decade of the home-brewed comparison attenuator was in steps of 0.001 decibels. I also recall the all-tube equipment incorporated what must have been one of the first of the phase-locked loops. RF signal switching circuits used high-speed, mercury-wetted relays. To get everything to work properly in the lab all at the same time I had to haggle my boss (who hadn't any idea what it was all about) to specially import a Tektronics double-beam scope from the States.

It will be appreciated cable loss across the Atlantic can amount to 4000 decibels. A prediction error of 0.5 percent involving temperature coefficients can cause HF signal levels to disappear in thermal agitation noise or LF signals to overload the last repeater into a state of intermodulation paralysis. Aaah! - the romance of it all.

Never met up with the famous "Cyrus Field" cable layer. But I've had spells at sea on HMTS (Her Majesty's Telegraph Ship) "Monarch" and "Iris" and even privately shared most of a bottle of Scotch with Captain Evans of "HMTS

Arial" in his cabin while proceding in darkness up the English Channel back to the ship's home port, Dover, just in time for Xmas.

There were once so many thousands of miles of disused Teed-pairs, bridged-taps, coax, buried in GPO telephone exchanges (offices) and trunk switching centres a national drive was organised to recover them for the value of the metal involved. It was called "Copper Mining".

I lived for 4 years in the other Halifax, in the hills and deep valleys of the West Riding of Yorkshire, but didn't spend much time at home to be amid the smoking chimney stacks attached to the many woolen mills. They've now all gone. We have other things in common besides transmission lines.

To have confidence in an analysis of an antenna as a transmission line it is first necessary to pray and believe in the existance of single-wire transmission lines. But Heaviside asked "Shall I refuse to eat my dinner because I do not fully understand the processes of digestion."

Yours, Reg.

==========

>
> [snip]
> > Vary line length until it is exactly 1/4 wavelengths.
> >
> > The input impedance of the 1/4-wave length of open-circuited line is
also
> > calculated and displayed.
> >
> > It will be found that at exact resonance (vary length or frequency very
> > finely) the input impedance of the line will be a pure resistance (jXin
=
> > 0) equal to half of the of the line end-to-end wire resistance.
> >[snip]
>
> This is *exactly* what my [and other's as well] line analysis computer
> programs do for the analysis of so-called "bridged taps".
>
> "Bridged taps", which are sections of open circuited transmission line
> bridged across an operational transmission line, are quite common
> in telephony practice. They are often placed deliberately to allow
> for extra extension/party lines, or are inadvertently left in place once
> a line is taken out of service. There are often several bridged taps
> on a given line. These bridged taps don't affect telephony [audio] but
> wreak havoc at higher frequencies for broadband signals. For
> frequencies where the bridged taps represent a 1/4 wavelength, they
> act as traps or notches and "suck out" the desired energy on the main
> line. As such bridged taps can ruin the performance of digital subscriber
> loops aka "DSL" such as ADSL/VDSL, etc. because they punch holes
> in the transmission band. Several companies, and consultants
> such as myself, have transmission line programs to evaluate broadband

> transmission over lines with cascades of multiple guages/dielectrics and
> several bridged taps. In fact several such "standard" line makeups
> for evaluating the performance of DSL systems are published
> in the Standards literature [ANSI T1E1.4]. My Fortran computer codes
> must perforce analyze such 1/4 wave, or any wavelength for that
> matter, stubs quite accurately to predict multi-megabit transmission
> performance over several thousand feet of such impaired lines. :-)
>
> But until your posting I had never thought to use them to analyze
> the driving point impedances of antennas. Neat application!
>
> [snip]
> > If your own programs significantly disagree then consign them to the
junk
> > box.
> [snip]
>
> Can't do that now, since literally millions of DSL modems are now running
> around the world over lines that have been accurately analyzed using those
> programs, hence they must be "right". I still use the programs in my
> consulting
> practice for client companies designing DSL modems who use my services.
>
> I have never used these programs to simulate antennas yet, gotta do that
> just for fun... I can set any arbitrary distribution of radiation
> resistance
> along the line in series with the primary parameter R(f) [of R(f), L(f),
> C(f)
> and G(f)] and so uniform distribution should be easy.
>
> [snip]
> >. There are no references
> > except my tattered note books. I came across various useful
relationship
> > around 1960 when researching into methods of locating faults on oceanic
> > phone cables.
> [snip]
>
> Well you certainly predate me, I only started developing my transmission
> line
> analysis programs around 1971 or so and have kept *improving* them over
the
> years, mostly to make contributions to my employers, clients and various
> transmission standards committees [ANSI, ITU, ETSI, IEEE].
>
> [snip]
> > But I daresay Heaviside preceded me. I dug up much information
> > and designed fault locating and other test equipment but very little was
> > published beyond contract manufacturing information. There were two
> articles

> > in the house engineering journal. I worked alone with a small group of
> > assistants, a lab and a workshop. I did present a series of lectures
> > afterwards, twice in Europe. But it was all just in a day's work with
> > occasional trips aboard cable laying ships and at manufacturers. The
> nearest
> > I got to the States was Newfoundland and Nova Scotia. I then shifted in
> > succession to several entirely different fields of operations. But no
> > experience is ever lost.
> [snip]
>
> Same here, as you know... I am a "fan" of Oliver's myself... and most of
> my work in this area was done "in house" for various clients and never
> published. Many times I felt that such work was "all done" and I was
ready
> to retire it all only to have it called back into service with each round
of
> higher
> bandwidth systems... for various reasons detailed cable/transmission line
> analysis seems to come back into favor every decade or so... these days it
> is a sadly neglected subject in "skul" curricula and are few "young turks"
> who can handle such problems, and so we "old farts" can't retire just yet.
> :-)
>
> Newfie and Nova Scotia, eh? Wonderful place in the summer. My wife
> and I have a condominium overlooking Halifax harbour and we spend
> part of the summers there. My Mom was/is a Newfie and I was
> born in Halifax, Nova Scotia myself, although we are both now all
> fully certified "Americans".
>
> Did you work for Cable and Wireless at one time?
>
> I suppose you might even have sailed on the "Cyrus Field", no?
>
> Long live the "Telegraphist's Equations"!
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL.
>
>

244. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 18:53:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m3ulvvgta94594dua0ho57ou34546knecp@4ax.com>
Source record: 102316

On Tue, 6 Jan 2004 10:34:08 -0700, "Ken Bessler"
<kg0wxIHATESPAM@yahoo.com> wrote:
>"Stef" <vee_ee_too_oh_doubleyou_ell@rac.ca> wrote in message
snip
>> You should try to put up a 130 ft wire dipole instead, with a balun,
>> good coax and a tuner. Then you can do whatever you please with the
>> ends of the wire.
snip
> I kinda like the idea of
>the all bander antenna because 1) it has more wire and 2) it has
>a longer ladder line, allowing it to reach my window. That way,
>my feedpoint would only be 7 feet from the tuner (less loss in
>the rg-58 coax).

Hi Ken,
7 feet is no virtue, and could easily be a problem. The loss of
RG-58 over a span of 10 times as much may seem like a lot, but only
amounts to less than 1dB at the low HF to less than 3dB at the high
end. Let's split the difference and call it 2dB when looking into a
matched condition. THIS is the only reason to have a tuned antenna,
because line losses increase with SWR.

If you run with a simple doublet (whatever stretch of a wire dipole
your supports can hold in the air), it is obvious that the concept of
tuned is a caprice of chance. It pays then to use ladder line where
the losses due to the certain SWR are lower (owing to the larger
conductors only).

Calling an antenna multibanded can be achieved through either building
traps along its length that variously shorten it at high frequencies
and lengthen it at lower frequencies (the interaction of these two
agendas and the proximity of ground can easily drive you crazy) -OR-
it can be achieved with large block letters in the advertising copy.
If you cannot erect the trapped doublet high enough, the results may
be identical to the one bought on the basis of its multi-colored bold
typeface ad - equally lossy.

Hence, draping these "multiband" antennas such that they approach the
ground forces you to employ a tuner to take up the slack. If you have
to use a tuner, you best use ladder line. If you are using ladder
line and a tuner, you don't need tuned antennas. If you don't need
tuned antennas, you don't need to drape the doublet where it
approaches the lossy ground. If you are hoping to erect a multiband
meaning it covers 160, you are describing an air cooled resistor.

You may note the circularity of this, or the chicken and egg problem. The truth of the matter is that almost any combination of tuned/untuned antenna, with ladder/coaxial line, into a tuner will give you fairly good operation. Unless you are sitting at the feed point 7 feet away. If you park your car in the living room, you would have the benefit of a Faraday shield to protect you and your equipment to overcoupling to the fields you are trying to transmit. However, if you put some distance between you and that point, you obtain a square law advantage. At 14 feet you and your gear are exposed to one quarter the output. 28 feet away, and you are down to one sixteenth the exposure.

Even at this distance, some Hams experience their gear locking up (foldback even at low power) due to close proximity (this is all wavelength based, 40M operation with this problem is a classic complaint in this board). This is due more often than not to poor choking at the feedpoint, but proximity comes in a close second.

73's
Richard Clark, KB7QHC

245. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 19:19:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ni1mvv4sr9jbegv11h7ekp3dq7ngutb3t3@4ax.com>
Source record: 102317

On Tue, 6 Jan 2004 13:14:01 -0500, "w4jle" <W4JLE(remove this to
reply)@pbtcomm.net> wrote:
>I would venture to say we all operate in the near field. How does one avoid
>it, particularly on 160 meters?

Hi OM,

The greater part of risk is in the wavelength compared to body height.
Sitting down obviously lowers risk.

Now, for the standing individual of average size, that person is
approaching a quarter wave at 10M (especially if you are a fat
conductor). If you were the standard 1 wavelength away from a 100W
transmission, then the standard 22dB down would be your exposure and
you would experience something less of 1 watt of heating throughout
your body. Touch a christmas tree bulb (7.5W) and ask yourself how
uncomfortable that feels, then average that over your 2Mï¿½ surface
area.

At 160M, you certainly stand the risk of being much closer than 1
wavelength, but you also stand less risk of being a quarter wave tall
(towering egos do not conduct). In any event, you are probably
sitting down anyway. Your radiation resistance in that band makes you
nearly invisible to the power emitted. Those standing next to VOA
half megawatt towers need to check their insurance clauses covering
acts of incipient stupidity.

73's
Richard Clark, KB7QHC

246. Attic antenna project

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 20:17:05 UTC
From: Slawek <nospam@nospam.com>
Message-ID: <btf54iota1@news.onet.pl>
Source record: 102318

Recently I got my hands on the second-hand 7600G and after trying 5m long loose piece of wire on top of the shelves as an antenna I am ready for something better.
I live in the centre of the 60,000 soul canadian town, in a 2 storey house with aluminum siding on the second floor and vertical sides of the attic, with plenty of RF noise (I have to admit half a dozen fluorescent lights, two computers, two touch lamps). There is a small (35' x 30') tree-less, wood-fenced backyard out of the upstairs window where my shack is to be.
After some antenna-related reading and checking my bank account (looow), I plan to buy some 100' of copper wire and install it at attic in a form of multiple-conic, horizontal, closed loop or open wire going up and down zig-zags along rafters. I figure I will need transformer (which I can manage to make), coax cable running from receiver up to the attic with the transformer at the end. Coax cable will be grounded at the receiver with the 2mm aluminum cable going down the external wall to the ground rod.
Alternatively I could run a straight wire (45') from upstairs window down to a fence post across the backyard and perhaps along the fence. With this option I am prepared to include Static Discharge Unit.

I would welcome any comments/sugestions regarding the above project before I start. I would like to concentrate on SW listening rather than MW, with a hope to catch Europe stations once in a while.
Thanks,
Slawek

247. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 20:23:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffb19b7$1_3@corp.newsgroups.com>
Source record: 102219

Bob Miller wrote:
> The longest dipole you can put up, fed entirely with ladderline to
> your coax choke/auto tuner, would probably be your best bet for a
> multi-band antenna.

Bob, that's not exactly good advice for someone living on 100 acres. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

248. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 20:28:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffb1ae7$1_3@corp.newsgroups.com>
Source record: 102220

Richard Clark wrote:
> Now, for the standing individual of average size, that person is
> approaching a quarter wave at 10M ...

Unless the individual is grounded at one end, that 1/4WL is
non-resonant. :-) Richard, what is your velocity factor?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

249. Re: Advice wanted:T-match Coax Balun for Yagi Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 20:30:25 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffb1b72_3@corp.newsgroups.com>
Source record: 102221

Steve B. wrote:
> I am using a T-match, with the driven element NOT insulated at the
> center, similar to the T-match used on the M-squared yagis for VHF. I
> cannot get a match no matter how much I move the shorting straps on the
> T-bars.

This is the kind of problem that is relatively easy to solve with an
antenna analyzer.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

250. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 20:33:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4r6mvv4pb0tq2v2ocqn5i11el3a7ani55n@4ax.com>
Source record: 102222

On Tue, 06 Jan 2004 14:28:06 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Unless the individual is grounded at one end, that 1/4WL is
>non-resonant. :-) Richard, what is your velocity factor?

I can see why you ask about velocity if you are not on ground.

251. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 20:38:16 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffb1d4a_3@corp.newsgroups.com>
Source record: 102223

Richard Clark wrote:

> On Tue, 06 Jan 2004 14:28:06 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>Unless the individual is grounded at one end, that 1/4WL is
>>non-resonant. :-) Richard, what is your velocity factor?
>
> I can see why you ask about velocity if you are not on ground.

"On ground" and "at ground potential" are very different things.
I wear thick rubber soles on my shoes forcing a current near-minimum
at each of my ends. And no, my feet are not big enough to cause a
microfarad of capacitance through an inch of rubber.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

252. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 20:42:39 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <25FKb.750593$HS4.5879686@attbi_s01>
Source record: 102224

Cecil Moore wrote:

> Richard Clark wrote:
>
>> Now, for the standing individual of average size, that person is
>> approaching a quarter wave at 10M ...
>
>
> Unless the individual is grounded at one end, that 1/4WL is
> non-resonant. :-) Richard, what is your velocity factor?

I don't know about Richard but my velocity factor seriously deteriorated
after age 60 :-)

OOOPPPSSS!! Did I say that :-) Deacon Dave

253. Re: Advice wanted:T-match Coax Balun for Yagi Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 21:32:30 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <MpudnVfEZMDktGaiRVn-jg@comcast.com>
Source record: 102225

"Steve B." <eagle572REMOVE@REMOVEcomcast.net> wrote in message
news:EMydnY1lrfB3RWWi4p2dnA@comcast.com...
> Thanks Tam, for the reply.
> I am using a T-match, with the driven element NOT insulated at the
> center, similar to the T-match used on the M-squared yagis for VHF. I
> cannot get a match no matter how much I move the shorting straps on the
> T-bars.
> Steve
Steve,

I have an M-Squarec 432 antenna. The T rod, if that is what it is, is about 3/4 the length pf the drivem element. That would suggest your 9-1/2 inches at 50 MHz is way too short; about right for a Beta match, though.

Tam/WB2TT

254. Re: Advice wanted:T-match Coax Balun for Yagi Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 21:36:51 UTC
From: Steve B <sumigyPhony@hair.net>
Message-ID: <d-WdnXnW9o32t2aiRVn-jA@comcast.com>
Source record: 102226

Cecil and w4KAZ:

Thanks guys, for the replies. Yes, I used the antenna analyzer and played with the driven element length, and the T-bar shorting straps to get the "best" result at swr=3.

For additional checking, I removed the driven element, and replaced the T-bars with a 200 ohm resistor. This should give 50 ohms at the resonance of the 4:1 1/2 wave coax balun. Well, suprise, the coax did not have the advertised velocity factor, so the resonance (as verified by an MFJ 259 analyzer) was at 51.45 MHz, instead of the desired 50.125 MHz. This is a minor annoyance, since the SWR at 50.125 would still be acceptable.

My next experiment: make the T-bars longer, since the driving point Z of the driven element at the center is only about 20 Ohms. By tapping farther out on the element, the differential Z would (hopefully) approach the desired 200 OHms at resonance.

I will keep you posted.

Steve
KJ7OG

Cecil Moore wrote:
> Steve B. wrote:
>
>> I am using a T-match, with the driven element NOT insulated at the
>> center, similar to the T-match used on the M-squared yagis for VHF. I
>> cannot get a match no matter how much I move the shorting straps on
>> the T-bars.
>
>
> This is the kind of problem that is relatively easy to solve with an
> antenna analyzer.

255. Is this ok for a g5rv installation??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 21:43:25 UTC
From: FEo2 Welder <evenodds@yahoo.co.uk>
Message-ID: <btfaqf$9vq$1@newsg2.svr.pol.co.uk>
Source record: 102227

Ok, one end is attached to the metal gutter of my house, via a 2 foot
nylon line and its egg insulator (22 feet high).
The other end of my full size g5rv (102") is attached to a pole at the end
of
the garden, via egg and nylon line. (20 feet high).
The centre ladder drops 12 feet, but away from the centre line of
the aerial, then it changes direction and runs horizontally towards the
house about 4 feet off the ground.
There are several nylon strings along the ladder line, purely to keep it
away from all bushes, greenhouses, etc .... although it runs straight until
it connects to the co-ax line.

Does this sound ok ... it has good vswr matching on its resonant bands,
needing a tuner here and there.

I would like to get one end 30 feet high one day, but at least i get a
straight run
all the way down the garden.

--
Regards.....
Steve.

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.558 / Virus Database: 350 - Release Date: 02/01/2004

256. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 22:12:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8jcmvvg529jkuf8lh5hmgdfuhucvpj2to7@4ax.com>
Source record: 102228

On Tue, 06 Jan 2004 14:38:16 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>"On ground" and "at ground potential" are very different things.
>I wear thick rubber soles on my shoes forcing a current near-minimum
>at each of my ends. And no, my feet are not big enough to cause a
>microfarad of capacitance through an inch of rubber.

Are you REALLY that concerned about less than 1W? Perhaps you should
wear Doc Martins.

257. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 22:24:28 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <cadmvvcjevto1qmh8efvor9ls1t7vgt9nc@4ax.com>
Source record: 102229

On Tue, 06 Jan 2004 14:23:01 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Bob Miller wrote:
>> The longest dipole you can put up, fed entirely with ladderline to
>> your coax choke/auto tuner, would probably be your best bet for a
>> multi-band antenna.
>
>Bob, that's not exactly good advice for someone living on 100 acres. :-)

I guess you county guys with all the acreage have to restain
yourselves, eh?

Bob
k5qwg

258. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 22:59:48 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <btfeoa$p0b$1@newshost.mot.com>
Source record: 102231

I thought the same thing until I did some field strength measurements. (a meter/diode/antenna field strength meter - I have an e-field probe now, but haven't tried it yet)

Get this:
A 2M quarter wave on the roof has much more field strength than a 5/8 on the trunk! I saw about 20 dB more. I was also surprised that the same model car with a sun roof had LOWER inside (with the roof 1/4 wave) than the one without the sun roof. Go figure.
Steve, K;9;D:C:I

"JDer8745" <jder8745@aol.com> wrote in message news:20040106104327.29482.00001752@mb-m02.aol.com...
> Crazy George sed:
> "At 15', you are in the near field of any HF antenna. ...
> ---------------------------------
> Kind of rules out mobile operation.
>
> Of course the metal body of the vehicle probably shields the station from the
> effects of the near field. > 73 de Jack K9CUN

259. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 23:01:59 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <btfesd$p4t$1@newshost.mot.com>
Source record: 102233

I don't understand why you say this. In the near field the E to I ratio
just isn't at 377 ohms yet, so you can have either a higher E or H field.
Steve K;9;D;C;I

"JDer8745" <jder8745@aol.com> wrote in message
news:20040106104327.29482.00001752@mb-m02.aol.com...
> Crazy George sed:
>
> "At 15', you are in the near field of any HF antenna. You do not want
your
> station to be in the near field of the antenna. All kinds of undesirable
> and often unpredictable things happen."
> ---------------------------------

260. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 23:02:34 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0401061502.31c38fcd@posting.google.com>
Source record: 102230

"Mike" <m*150@lycos.co.uk> wrote in message
news:<gsvJb.15820$FN.12805@newsfep4-winn.server.ntli.net>...
> Hi Kevin,
>
> If you have to cut bits off the coax to get the SWR down, your aerial isn't
> resonant on the frequency being used. The coax is acting like part of the
> aerial.
> Get the aerial resonant and it doesn't matter what length of coax you use as
> the SWR will not change.
>

This would be true assuming the transmission line is truly 50
ohms. It almost never really is.

I've asked this question before, and i got similar answers. The
point about losses in long lines improving the SWR are true of course.

But my point is that even if the antenna is a true 50 + 0j, if the
coax is not a true 50 ohms, and is more like 55 or 45 ohms, then the
length of the
coax WILL matter, in terms of the measured SWR.

Slick

261. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 23:05:33 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <btff34pfr1@newshost.mot.com>
Source record: 102232

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:3ffb1d4a_3@corp.newsgroups.com...
>...
> ...And no, my feet are not big enough to cause a
> microfarad of capacitance through an inch of rubber.
> -- 73, Cecil http://www.qsl.net/w5dxp

Ahhh! But what about the other end?

The devil made me say this.
Sorry Cecil, just couldn't resist.
Steve K:9:D:C:I

262. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 23:45:46 UTC
From: "Murray Green, K3BEQ" <mgreen@erols.com>
Message-ID: <3FFB48AA.434D08C1@erols.com>
Source record: 102234
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Thank you, however, I doubt very seriously any antenna is going to
last over 70 years. But appreciate your input. Best estimate I
received from those in the business of installing the antennas is
in the area of 15-20 years.

"Ed G." wrote:
>
> > Can any of you antenna pros out there tell me what would be the
> > expected life span for a Cell Wave 4 element vertical dipole?
>
> 1. Its "Celwave", not "Cell Wave". (Search also "RFS Celwave")
>
> 2. Celwave was formerly Phelps Dodge.
>
> 3. The model you want for 2 meters is the PD340-3.
>
> 4. A properly installed antenna with properly installed and sealed
> feedlines will probably last longer than you.
>
> > Second question. I recognize that Cellwave has an excellent reputation.
> > Are there any other antenna companies that may compare or exceed
> > Cellwave antenna products in performance and durability?
>
> Other comparable manufacturer are Andrew, Sinclair, and Decibel
> Products. Quality is comparable amongst all.
>
> Ed WB6SAT

263. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 23:46:14 UTC
From: "Murray Green, K3BEQ" <mgreen@erols.com>
Message-ID: <3FFB48C6.BE5B9A06@erols.com>
Source record: 102235
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Thank you, however, I doubt very seriously any antenna is going to
last over 70 years. But appreciate your input. Best estimate I
received from those in the business of installing the antennas is
in the area of 15-20 years.

"Ed G." wrote:
>
> > Can any of you antenna pros out there tell me what would be the
> > expected life span for a Cell Wave 4 element vertical dipole?
>
> 1. Its "Celwave", not "Cell Wave". (Search also "RFS Celwave")
>
> 2. Celwave was formerly Phelps Dodge.
>
> 3. The model you want for 2 meters is the PD340-3.
>
> 4. A properly installed antenna with properly installed and sealed
> feedlines will probably last longer than you.
>
> > Second question. I recognize that Cellwave has an excellent reputation.
> > Are there any other antenna companies that may compare or exceed
> > Cellwave antenna products in performance and durability?
>
> Other comparable manufacturer are Andrew, Sinclair, and Decibel
> Products. Quality is comparable amongst all.
>
> Ed WB6SAT

264. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 23:46:37 UTC
From: "Murray Green, K3BEQ" <mgreen@erols.com>
Message-ID: <3FFB48DD.3774DE82@erols.com>
Source record: 102236
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Thank you, however, I doubt very seriously any antenna is going to
last over 70 years. But appreciate your input. Best estimate I
received from those in the business of installing the antennas is
in the area of 15-20 years.

"Ed G." wrote:
>
> > Can any of you antenna pros out there tell me what would be the
> > expected life span for a Cell Wave 4 element vertical dipole?
>
> 1. Its "Celwave", not "Cell Wave". (Search also "RFS Celwave")
>
> 2. Celwave was formerly Phelps Dodge.
>
> 3. The model you want for 2 meters is the PD340-3.
>
> 4. A properly installed antenna with properly installed and sealed
> feedlines will probably last longer than you.
>
> > Second question. I recognize that Cellwave has an excellent reputation.
> > Are there any other antenna companies that may compare or exceed
> > Cellwave antenna products in performance and durability?
>
> Other comparable manufacturer are Andrew, Sinclair, and Decibel
> Products. Quality is comparable amongst all.
>
> Ed WB6SAT

265. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-06 23:46:53 UTC
From: "Murray Green, K3BEQ" <mgreen@erols.com>
Message-ID: <3FFB48ED.FD092A0F@erols.com>
Source record: 102237
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Thank you, however, I doubt very seriously any antenna is going to
last over 70 years. But appreciate your input. Best estimate I
received from those in the business of installing the antennas is
in the area of 15-20 years.

"Ed G." wrote:
>
> > Can any of you antenna pros out there tell me what would be the
> > expected life span for a Cell Wave 4 element vertical dipole?
>
> 1. Its "Celwave", not "Cell Wave". (Search also "RFS Celwave")
>
> 2. Celwave was formerly Phelps Dodge.
>
> 3. The model you want for 2 meters is the PD340-3.
>
> 4. A properly installed antenna with properly installed and sealed
> feedlines will probably last longer than you.
>
> > Second question. I recognize that Cellwave has an excellent reputation.
> > Are there any other antenna companies that may compare or exceed
> > Cellwave antenna products in performance and durability?
>
> Other comparable manufacturer are Andrew, Sinclair, and Decibel
> Products. Quality is comparable amongst all.
>
> Ed WB6SAT

266. Re: Is this ok for a g5rv installation??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 01:06:46 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <GYIKb.29056$IM3.17068@newsread3.news.atl.earthlink.net>
Source record: 102238

It will be a high angle radiator, but that is not all bad. Try it.

Dan/W4NTI

"FEo2 Welder" <evenodds@yahoo.co.uk> wrote in message
news:btfaqf$9vq$1@newsg2.svr.pol.co.uk...
> Ok, one end is attached to the metal gutter of my house, via a 2 foot
> nylon line and its egg insulator (22 feet high).
> The other end of my full size g5rv (102") is attached to a pole at the end
> of
> the garden, via egg and nylon line. (20 feet high).
> The centre ladder drops 12 feet, but away from the centre line of
> the aerial, then it changes direction and runs horizontally towards the
> house about 4 feet off the ground.
> There are several nylon strings along the ladder line, purely to keep it
> away from all bushes, greenhouses, etc .... although it runs straight
until
> it connects to the co-ax line.
>
> Does this sound ok ... it has good vswr matching on its resonant bands,
> needing a tuner here and there.
>
>
> I would like to get one end 30 feet high one day, but at least i get a
> straight run
> all the way down the garden.
>
> --
> Regards.....
> Steve.
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.558 / Virus Database: 350 - Release Date: 02/01/2004
>
>

267. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 02:18:12 UTC
From: "Ed G." <Spectrumhog@_REMOVE_StarBand.net>
Message-ID: <Xns9468BA4049C34Frog207Junocom@148.78.248.75>
Source record: 102239
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

>
> Thank you, however, I doubt very seriously any antenna is going to
> last over 70 years. But appreciate your input. Best estimate I
> received from those in the business of installing the antennas is
> in the area of 15-20 years.

Heh heh, well maybe you sounded "decrepit" to me in your original posting? Anyway, the 15-20 figure is good. If you use heliax, seal the hell properly out of all connectors, and mount the antenna and heliax very firmly, those no reason other than extremes of nature (lightning, huricane, etc,) to prevent it from lasting longer.

Ed

268. Re: Advice wanted:T-match Coax Balun for Yagi Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 03:30:38 UTC
From: "Steve B." <eagle572REMOVE@REMOVEcomcast.net>
Message-ID: <IridnQ-7uK3I4GaiRVn-gQ@comcast.com>
Source record: 102240

Tarmo:
Yes, it does appear that the T-bars are too short. I looked up a 10
Meter T-match on K1ttt.net and he uses :
Rod dia = 0.5"
Spacing = 4"
Length = 24"
Lead length = 3"

This would scale to 6 meters to about 15" length for the T-bars. I will
build a new set that is at least that long and give it a try, probably
Wed. Jan. 7
Thanks,
Steve

Tarmo Tammaru wrote:
> "Steve B." <eagle572REMOVE@REMOVEcomcast.net> wrote in message
> news:EMydnY1lrfB3RWWi4p2dnA@comcast.com...
>
>>Thanks Tam, for the reply.
>> I am using a T-match, with the driven element NOT insulated at the
>>center, similar to the T-match used on the M-squared yagis for VHF. I
>>cannot get a match no matter how much I move the shorting straps on the
>>T-bars.
>>Steve
>
> Steve,
>
> I have an M-Squarec 432 antenna. The T rod, if that is what it is, is about
> 3/4 the length pf the drivem element. That would suggest your 9-1/2 inches
> at 50 MHz is way too short; about right for a Beta match, though.
>
> Tam/WB2TT
>
>

269. EZNEC and Invalid Use of Null

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 04:22:53 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <xQLKb.23761$lo3.9277@newsread2.news.pas.earthlink.net>
Source record: 102241

Has anybody else had problems with the error "Invalid Use of Null" in EZNEC?
After that it rather inelegantly terminates the application and all unsaved
work is lost. Not exactly a graceful way of handling errors.

I'm not even sure what's causing the problem.

Thanks,
John - KD5YI

270. Re: EZNEC and Invalid Use of Null

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 04:39:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffb8e1b$1_8@corp.newsgroups.com>
Source record: 102242

John Smith wrote:
> Has anybody else had problems with the error "Invalid Use of Null" in EZNEC?
> After that it rather inelegantly terminates the application and all unsaved
> work is lost. Not exactly a graceful way of handling errors.
>
> I'm not even sure what's causing the problem.

Can you describe it in more detail? Does it involve a source? a load?
a transmission line? What does the antenna look like?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

271. Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 05:32:17 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <BRMKb.52921$Fg.10317@lakeread01>
Source record: 102243

I am confused by an issue and hope some of you gurus can help.

I understand matching at the transmitter end. Using the "right" length of line or an antenna tuner - oops, I mean conjugate matching device, I can get the rig to put all or as much power as it can into the line. If I choose ladder line, it has very low loss in the line itself. So far -- so good.

But what happens where the line hits the antenna? If the line is 50 or 450 ohm and the antenna is exhibiting 2 ohms, isn't there a big mismatch and a lot of lost power? How much? Would the 450:2 mismatch lose more power than a 50:2 mismatch and thereby give up the advantage gained by the low loss in the 450 ohm ladder line. I don't see this quantified in the antenna modeling programs.

I realize in multiband use, the mismatch will vary so there is not a whole lot you can do except put the tuner at the junction of the antenna and line. So, why isn't that the "normal" way to handle the problem?
--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64

272. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 05:43:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffb9d2e$1_8@corp.newsgroups.com>
Source record: 102245

Craig Buck wrote:
> But what happens where the line hits the antenna? If the line is 50 or 450
> ohm and the antenna is exhibiting 2 ohms, isn't there a big mismatch and a
> lot of lost power?

"A lot" needs to be defined but the short answer is yes. That's why 2 ohm
antennas are not popular. A lot of antennas are designed with close to 50
ohm feedpoint impedances at resonance.

> I realize in multiband use, the mismatch will vary so there is not a whole
> lot you can do except put the tuner at the junction of the antenna and line.
> So, why isn't that the "normal" way to handle the problem?

That is fairly normal now that remote autotuners are readily available.

Another way to handle the problem is to use very low-loss transmission
line, e.g. open-wire feedline which will tolerate a high SWR with relatively
low losses. The antenna *system* is then matched at the transmitter.

I personally use the open-wire feedline to transform the antenna impedance
to an impedance acceptable to my transmitter with no tuner required.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

273. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 05:44:10 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <K0NKb.12975$6B.11663@newsread1.news.atl.earthlink.net>
Source record: 102244

Reg:

Thanks for that interesting personal history below... I enjoyed reading it.

Another thing that [my] transmission line analysis routines [based upon 150 year old but
"augmented" "Telegraphist's Equations"] allow for besides arbitrary resistive
loading is arbitrary inductive loading along the length to accomodate the effects of
loading coils [Thanks Prof. Puppin, Oliver Heaviside!].

Of course the "Telegraphists Equations" [first developed by Oliver Heaviside I believe] are
based upon circuit theory and not field theory per se, and so they only accurately model the
TEM mode of transmission.

Re: Single conductor transmission lines. It seems to me that there may be several, even
many, modes simultaneously supported on such single conductor lines. I don't know about
your programs/algorithms capabilities, but my own programs analyze lines only for the TEM
mode [Sufficient for telephony, and broadband DSL and cable modem applications] and so
one has to be careful with interpertations of the outputs of such modelling programs when
other [non-TEM] modes might be present.

The mathematical models for various modes will be different won't they?

I don't see [forsee] any problems with the pure TEM analysis of single conductor lines
using augmented "Telegraphists Equations". Other than the radiation losses and their
distribution, which we have been discussing. such single conductor lines are modeled, for
TEM mode, the same way as two [or more] conductor transmission lines are they not?

--
Peter K1PO
Indialantic By-the-Sea, FL.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:bteuoh$q0p$1@sparta.btinternet.com...

> Peter,
>
> Soon after WW2 the Cable & Wireless company was 'nationalised' and became
a
> part of the British General Post Office. The GPO, in effect, was a giant
> government department with 250,000 employees world wide. At its head was
the
> Postmaster General, a politician, a minister of government next in
authority
> to the prime minister (Clement Attley who had usurped Churchill). All
other
> employees, including the usually distinguished Engineer-in-Chief, down to
> postmen, telegram boys on motor bikes and pretty female telephone
operators
> were civil servants.
>
>
> C&W was the GPO's overseas arm distributed around the far-flung E[ny]mpire
on
> which the sun never set. As the whole of my 40 years telecoms career was
> with the GPO (later British Telecom and The Royal Mail to be
asset-stripped
> by Mrs Thatcher) you might say that for a period I was a C&W employee. At
> any rate we were all contributing to the same pension scheme.
>
>
> One of the Engineer-in-Chief's domains was his Research Department based
at
> Dollis Hill, N.London. It was the British renowned equivalent of Bell
labs.
> Formally I was a member of the E-in-Chief's Cable Test Section, a
> non-descript name which covered a multitude of sins. I once met Josephson
of
> Junction fame with some of his equipment in a broom cupboard under the
> stairs at DH. But at that time research was being concentrated on
submerged
> deep-sea repeaters, reliablity of thermionic tubes, and on a new,
> light-weight oceanic cable with its strength member being the coaxial
inner
> conductor itself. It consisted of a bundle of high-tensile steel wires
> covered with a seamed copper tape. I designed the mobile transmission
test
> equipment used at the cable factory in Southampton docks. To determine
> temperature coefficients of line loss and other properties the last decade
> of the home-brewed comparison attenuator was in steps of 0.001 decibels. I
> also recall the all-tube equipment incorporated what must have been one of
> the first of the phase-locked loops. RF signal switching circuits used
> high-speed, mercury-wetted relays. To get everything to work properly in
> the lab all at the same time I had to haggle my boss (who hadn't any idea
> what it was all about) to specially import a Tektronics double-beam scope

> from the States.
>
>
> It will be appreciated cable loss across the Atlantic can amount to 4000
> decibels. A prediction error of 0.5 percent involving temperature
> coefficients can cause HF signal levels to disappear in thermal agitation
> noise or LF signals to overload the last repeater into a state of
> intermodulation paralysis. Aaah! - the romance of it all.
>
>
> Never met up with the famous "Cyrus Field" cable layer. But I've had
spells
> at sea on HMTS (Her Majesty's Telegraph Ship) "Monarch" and "Iris" and
even
> privately shared most of a bottle of Scotch with Captain Evans of "HMTS
> Arial" in his cabin while proceding in darkness up the English Channel
back
> to the ship's home port, Dover, just in time for Xmas.
>
>
> There were once so many thousands of miles of disused Teed-pairs,
> bridged-taps, coax, buried in GPO telephone exchanges (offices) and trunk
> switching centres a national drive was organised to recover them for the
> value of the metal involved. It was called "Copper Mining".
>
>
> I lived for 4 years in the other Halifax, in the hills and deep valleys of
> the West Riding of Yorkshire, but didn't spend much time at home to be
amid
> the smoking chimney stacks attached to the many woolen mills. They've now
> all gone. We have other things in common besides transmission lines.
>
>
> To have confidence in an analysis of an antenna as a transmission line it
is
> first necessary to pray and believe in the existance of single-wire
> transmission lines. But Heaviside asked "Shall I refuse to eat my dinner
> because I do not fully understand the processes of digestion."
> ----
> Yours, Reg.
>
> ==
>
> >
> > [snip]
> > > Vary line length until it is exactly 1/4 wavelengths.
> > >
> > > The input impedance of the 1/4-wave length of open-circuited line is
> also
> > > calculated and displayed.

> > >
> > > It will be found that at exact resonance (vary length or frequency
very
> > > finely) the input impedance of the line will be a pure resistance (
jXin
> =
> > > 0) equal to half of the of the line end-to-end wire resistance.
> > >[snip]
> >
> > This is *exactly* what my [and other's as well] line analysis computer
> > programs do for the analysis of so-called "bridged taps".
> >
> > "Bridged taps", which are sections of open circuited transmission line
> > bridged across an operational transmission line, are quite common
> > in telephony practice. They are often placed deliberately to allow
> > for extra extension/party lines, or are inadvertently left in place once
> > a line is taken out of service. There are often several bridged taps
> > on a given line. These bridged taps don't affect telephony [audio] but
> > wreak havoc at higher frequencies for broadband signals. For
> > frequencies where the bridged taps represent a 1/4 wavelength, they
> > act as traps or notches and "suck out" the desired energy on the main
> > line. As such bridged taps can ruin the performance of digital
subscriber
> > loops aka "DSL" such as ADSL/VDSL, etc. because they punch holes
> > in the transmission band. Several companies, and consultants
> > such as myself, have transmission line programs to evaluate broadband
> > transmission over lines with cascades of multiple guages/dielectrics and
> > several bridged taps. In fact several such "standard" line makeups
> > for evaluating the performance of DSL systems are published
> > in the Standards literature [ANSI T1E1.4]. My Fortran computer codes
> > must perforce analyze such 1/4 wave, or any wavelength for that
> > matter, stubs quite accurately to predict multi-megabit transmission
> > performance over several thousand feet of such impaired lines. :-)
> >
> > But until your posting I had never thought to use them to analyze
> > the driving point impedances of antennas. Neat application!
> >
> > [snip]
> > > If your own programs significantly disagree then consign them to the
> junk
> > > box.
> > [snip]
> >
> > Can't do that now, since literally millions of DSL modems are now
running
> > around the world over lines that have been accurately analyzed using
those
> > programs, hence they must be "right". I still use the programs in my
> > consulting
> > practice for client companies designing DSL modems who use my services.

> >
> > I have never used these programs to simulate antennas yet, gotta do that
> > just for fun... I can set any arbitrary distribution of radiation
> > resistance
> > along the line in series with the primary parameter R(f) [of R(f), L(f),
> > C(f)
> > and G(f)] and so uniform distribution should be easy.
> >
> > [snip]
> > >. There are no references
> > > except my tattered note books. I came across various useful
> relationship
> > > around 1960 when researching into methods of locating faults on
oceanic
> > > phone cables.
> > [snip]
> >
> > Well you certainly predate me, I only started developing my transmission
> > line
> > analysis programs around 1971 or so and have kept *improving* them over
> the
> > years, mostly to make contributions to my employers, clients and various
> > transmission standards committees [ANSI, ITU, ETSI, IEEE].
> >
> > [snip]
> > > But I daresay Heaviside preceded me. I dug up much information
> > > and designed fault locating and other test equipment but very little
was
> > > published beyond contract manufacturing information. There were two
> > articles
> > > in the house engineering journal. I worked alone with a small group of
> > > assistants, a lab and a workshop. I did present a series of lectures
> > > afterwards, twice in Europe. But it was all just in a day's work with
> > > occasional trips aboard cable laying ships and at manufacturers. The
> > nearest
> > > I got to the States was Newfoundland and Nova Scotia. I then shifted
in
> > > succession to several entirely different fields of operations. But no
> > > experience is ever lost.
> > [snip]
> >
> > Same here, as you know... I am a "fan" of Oliver's myself... and most of
> > my work in this area was done "in house" for various clients and never
> > published. Many times I felt that such work was "all done" and I was
> ready
> > to retire it all only to have it called back into service with each
round
> of
> > higher
> > bandwidth systems... for various reasons detailed cable/transmission

line
> > analysis seems to come back into favor every decade or so... these days
it
> > is a sadly neglected subject in "skul" curricula and are few "young
turks"
> > who can handle such problems, and so we "old farts" can't retire just
yet.
> > :-)
> >
> > Newfie and Nova Scotia, eh? Wonderful place in the summer. My wife
> > and I have a condominium overlooking Halifax harbour and we spend
> > part of the summers there. My Mom was/is a Newfie and I was
> > born in Halifax, Nova Scotia myself, although we are both now all
> > fully certified "Americans".
> >
> > Did you work for Cable and Wireless at one time?
> >
> > I suppose you might even have sailed on the "Cyrus Field", no?
> >
> > Long live the "Telegraphist's Equations"!
> >
> > --
> > Peter K1PO
> > Indialantic By-the-Sea, FL.
> >
> >
>
>

274. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 07:34:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bcbnvv8n2mgtkfbp4t5nm3tvmlc74l6am8@4ax.com>
Source record: 102246

On Wed, 7 Jan 2004 00:32:17 -0500, "Craig Buck" <k4ia@cox.net> wrote:
>But what happens where the line hits the antenna? If the line is 50 or 450
>ohm and the antenna is exhibiting 2 ohms, isn't there a big mismatch and a
>lot of lost power? How much? Would the 450:2 mismatch lose more power than
>a 50:2 mismatch and thereby give up the advantage gained by the low loss in
>the 450 ohm ladder line. I don't see this quantified in the antenna
>modeling programs.

Hi Craig,

SWR is not inherently lossy, it contributes to the existing loss which can only be found in ohmic resistance. That ohmic resistance is part of the finals' bulk resistance, transmission line wire, and metal construction of the antenna. If all such characteristics were 0 Ohms, then any amount of SWR would exhibit no loss whatever.

However, the antenna also exhibits a "radiation resistance" in series which is part of the mix. This resistance does not transform power to heat, and thus does not qualify as loss in the conventional sense. In other words, radiation resistance (Rr) does not diminish efficiency. Even if we had 0 Ohms ohmic resistance, there would still be the radiation resistance to eventually consume all the power.

Now backing up and then considering that there is some ohmic resistance in these elements, in comparison to that radiation resistance (Rr) we find an efficiency (which IS quantified in antenna modeling programs). If you tried to drive a 2 Ohm (Rr) antenna with 2 Ohms of ohmic loss, you can guess where this leads. If you tried to drive a 200 Ohm (Rr) antenna with 2 Ohms of ohmic loss, you can see you've improved your DX. BOTH resistances consume power, but the radiation resistance is a productive use.

These are extremes and ignore SWR which takes that ohmic loss and multiplies it. Hence it is preferable to present a 50 Ohm source (your transmitter is characterized as such at full power) to a 50 Ohm transmission line, feeding a 50 Ohm Antenna. Within this scenario, there still remains the ohmic loss that is strictly a matter of local variables (poor connections, small diameter wire, iron wire instead of copper, proximity of earth...).

One last conundrum: there are very few 50 Ohm antennas in nature or off the shelf. What you see characterized as a 50 Ohm antenna is derived through matching connections at the feed point that transform the actual radiation resistance (Rr) to the anticipated transmission line Z. The standard quarterwave vertical whip exhibits an Rr of 30 to 35 Ohms for the best of conditions, and the standard halfwave

dipole exhibits an Rr of 70 to 75 Ohms for its best of conditions.

Those native Rr's are often left untransformed because the SWR they present are in fact meager (even 2:1 is fairly trivial). If you were to examine such plumber's delights like the series available from GAP, you would find that they have conspired to arrange elements to present as nearly 50 Ohms at the different bands as they could; however, the native Rr varies from 10 - 40 Ohms and is transformed to 50 Ohms by the time it reaches the connector dangling below.

In this case, the SWR resides on the antenna itself, and it is the ohmic loss of the antenna structure that determines how efficient the system might ultimately be. GAP uses large metal tubes that in comparison to #32 wire wrap wire is a slam dunk in comparison; and thus the efficiency concerns are cast back into the losses of the transmission line and source that are suitably matched (use a bigger diameter coax, and a more expensive rig to do better).

73's
Richard Clark, KB7QHC

275. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 11:52:40 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040107065240.23083.00001781@mb-m27.aol.com>
Source record: 102247

>I realize in multiband use, the mismatch will vary so there is not a whole
>lot you can do except put the tuner at the junction of the antenna and line.
>So, why isn't that the "normal" way to handle the problem?
>--
>Radio K4ia
>Craig "Buck"

Bacause it is "up there" where it is hard to reach, mostly matter of convenience. In normal situations it is more convenient to tune things in the shack.
Personally, I always try to have my antennas to match the coax, to avoid losses, high SWR on the lines. You can design antennas to have 50 ohms or you can find 50 ohms impedance on the antenna and use antenna to be the "matching device". K7GCO has be advocating to feed the Yagis off center at 50 ohm point. Contesters care about every watt of loss and try to minimize it. Every fraction of dB counts.
Casual hams care mostly about 1:1 at the TX connector so the system coax-antenna "looks good" to the transmitter. Few dBs don't matter.

Yuri, K3BU

276. Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 14:37:27 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0401070637.4fe7943a@posting.google.com>
Source record: 102248

In an earlier discusion of inductances with
respect to antennas I found that when modeling inductances
for the purposes of coupling I found that breaking up a
'point' inductance such that it spread over the actual
length of an inductor not only reqired more inductance
but provided less radiation. The current per unit length
of the inductance flattened along the length whereas when
shown as a 'point' the current increased to form an apex.
This to me questions the adherence to form factors when
winding an inductance without knowing what the form factor
achieves that is desirable. Frankly it would suggest to me
that a pancake design of an inductor could emulate what was
found by modelling but what bothers me is that the pancake
design also has the apearance of a capacity hat.
Terman noted however that the pancake design can be found
in some broadcast installations which does not relieve me
from the question as to why form factors should be adhered to.
Comments
Art

277. Re: Low budget in-house cellular repeater project questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 14:43:51 UTC
From: richardharrison@webtv.net
Message-ID: <10707-3FFC1B27-281@storefull-2316.public.lawson.webtv.net>
Source record: 102249

Ralph Mowery wrote:
"Most likely big BS."

Also:
"---40 elements and 20.8 dbi is all that has. That is almost 3 times as many elements as the ebay antenna."

Ralph is on the mark.

John Kraus in "Antennas", page 705, demonstrates how the gain of a curtain antenna adds up:

"The gain of a single 1/2-wave dipole is 2.15 dBi and of 2 collinear in-phase 1/2-wave dipoles is 3.8 dBi. The array of 8 such collinear dipoles adds 3+3+3 =9dB. The reflectoer screen adds 3 dB more and the ground bounce another 6 dB for a grand total of 3.8+9+3+6=21.8 dBi or a directivity of 151 approx."

36 db is the sort of gain that one can get from a dish that is very large in terms of wavelength and that has extremely small imperfections in its surface. As Kraus shows, you only hope to gain 3 db more when you double the number of elements in an array.

Best regards, Richard Harrison, KB5WZI

278. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 15:57:30 UTC
From: "Murray Green, K3BEQ" <mgreen@erols.com>
Message-ID: <3FFC2C6A.DF86BDF7@erols.com>
Source record: 102250
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

**Still hanging in there at almost 73. Agree on the sealing. Club has
a perfectionist who does electronics on boats and is a stickler on
doing things right, especially sealing. Again, thank you.
73 Murray, K3BEQ
==========

"Ed G." wrote:
>
> >
> > Thank you, however, I doubt very seriously any antenna is going to
> > last over 70 years. But appreciate your input. Best estimate I
> > received from those in the business of installing the antennas is
> > in the area of 15-20 years.
>
> Heh heh, well maybe you sounded "decrepit" to me in your original
> posting? Anyway, the 15-20 figure is good. If you use heliax, seal the
> hell properly out of all connectors, and mount the antenna and heliax very
> firmly, those no reason other than extremes of nature (lightning,
> huricane, etc,) to prevent it from lasting longer.
>
> Ed

279. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 16:13:51 UTC
From: richardharrison@webtv.net
Message-ID: <1376-3FFC303F-655@storefull-2312.public.lawson.webtv.net>
Source record: 102252

Murry Green, K3BEQ wrote:
"---I doubt that any antenna is going to last over 70 years."

There are numerous medium wave broadcast arrays in operation continuously since 1934, the year of the famous communications act of 1934, and some still stand from years earlier. They receive inspections, repair, and repainting as required to keep them highly visible.

A two-meter band antenna constructed of stainless steel by a quality manufacturer should be at least as durable. 1934 was too early in the use of 2 meters to provide many examples to prove the point.

I worked 26 years for a corporation which used many VHF ground planes including 2-meter types. Nearly all were supplied by Andrew Corporation. They were folded monopoles and withstood repeated lightning strikes decade after decade. They were permanent and like the broadcast antennas , they received inspections and infrequent repairs when rarely required, but they weren`t painted.

Best regards, Richard Harrison, KB5WZI

280. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 16:18:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bthbhc$7j0$1@sparta.btinternet.com>
Source record: 102251

Cec and others, what's the point in dragging in opinions of people nobody has ever head of and whose publications are highly unlikely ever to become available before all interest in the subject has faded from everybody's imagination.

If anything needs to be said, would it not be better to say it just on one's own authority and be done with it. Otherwise it falls into the category of "name dropping".

Reg

281. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 16:28:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bthc3h$o8a$1@titan.btinternet.com>
Source record: 102253

Art, what's a form factor and who's Terman.

282. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 16:43:17 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <JGWKb.54642$Fg.11136@lakeread01>
Source record: 102254

I am focusing on the issue of power transfer at the junction of the line and the antenna. Specifically, in a multiband dipole where the figures (all of them) will vary wildly from band to band. Maximum power transfers at resonance (oh no, let's not get into a war defining that). But I think it is safe to say by anyone's definition, a multiband dipole usually not operated at it's resonant frequencies. If the line is 450 ohm and the antenna is 2 ohm or 20 ohm or 2000 ohm, there is not resonance. Intuitively, I have got to think a 200:1 mismatch is significant.

So what is the loss at the antenna/line junction? I understand matching at the transmitter end. I understand using low loss line. I don't understand why the mismatch at the antenna junction is ignored.

--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64

283. HAM EQUIPMENT DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 16:53:35 UTC
From: n2ion@aol.com
Message-ID: <20040107115335.26239.00002783@mb-m06.aol.com>
Source record: 102255

Long Island Mobile Amateur Radio Club (LIMARC), is looking for DONATIONS of "Ham" gear, like triband beams, rigs, and towers, to be used for our Emergency Communication Stations, and Field Day.

If you have any old equipment that you're not using anymore, and would like to donate it to our cause, we will make sure that you get a nice letter, being that we have 503 c(3) status with the I.R.S. ,for a tax deduction, from our club.
We really need your help, so please try to assist us in any way that you can.

Thanks in advance

284. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 17:05:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lieovvcrbf3gibsn0p8t8f1n69n8uniclr@4ax.com>
Source record: 102256

On Tue, 6 Jan 2004 03:58:18 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

> I never support my stuff by citing

On Mon, 5 Jan 2004 04:41:03 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>to keep Roy happy

On Tue, 6 Jan 2004 03:58:18 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>But I daresay Heaviside preceded me.

On Tue, 6 Jan 2004 18:28:33 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Clement Attley who had usurped Churchill

On Tue, 6 Jan 2004 18:28:33 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

> I once met Josephson

On Tue, 6 Jan 2004 18:28:33 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

> Captain Evans

On Wed, 7 Jan 2004 16:18:52 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>If anything needs to be said, would it not be better to say it just on one's
>own authority and be done with it. Otherwise it falls into the category of
>"name dropping".
>---
>Reg

I don't agree (and apparently neither do you).
If names were snowflakes, this would be an avalanche. :-)

73's
Richard Clark, KB7QHC

285. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 17:10:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffc3e2b$1_7@corp.newsgroups.com>
Source record: 102257

Reg Edwards wrote:
> Cec and others, what's the point in dragging in opinions of people nobody
> has ever head of and whose publications are highly unlikely ever to become
> available before all interest in the subject has faded from everybody's
> imagination.

Reg, everyone except you has heard of John D. Kraus, W8JK. My personal
library would be extremely incomplete without his book(s).

> If anything needs to be said, would it not be better to say it just on one's
> own authority and be done with it. Otherwise it falls into the category of
> "name dropping".

In physics and engineering circles, it's called providing a reference.
Without a reference, it is just a personal opinion, unless one can
prove otherwise. With a proper reference, it is generally accepted as
fact, unless one can prove otherwise. Check out all the references
at the end of any technical article.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

286. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 17:21:50 UTC
From: "Dan Richardson"
Message-ID: <utfovvs07amou28gnnh1qk1m1g8ai1pomf@4ax.com>
Source record: 102258

On Wed, 7 Jan 2004 11:43:17 -0500, "Craig Buck" <k4ia@cox.net> wrote:
[snip]
>So what is the loss at the antenna/line junction? I understand matching at
>the transmitter end. I understand using low loss line. I don't understand
>why the mismatch at the antenna junction is ignored.

I suggest you download and run TLDetails and see for yourself. It is a
great freeware program which should answer most, if not all, of your
questions.

You can download it at: http://www.qsl.net/ac6la/tldetails.html

73
Danny, K6MHE

287. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 17:31:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <16fovvkk6j5n2goht2s5tfrlsu48v50sr3@4ax.com>
Source record: 102171

On Wed, 7 Jan 2004 11:43:17 -0500, "Craig Buck" <k4ia@cox.net> wrote:

>I understand matching at
>the transmitter end. I understand using low loss line. I don't understand
>why the mismatch at the antenna junction is ignored.

Hi Craig,

Because the match performs a complete reflection without Rloss and the antenna performs a less than complete reflection with Rr. At least in theory. The Rr eventually claims all the power. If you wish, this could be thought of a dampened ringing to every cycle of transmission. If you compare the length of the storage component, the transmission line, to the Wavelength; then such a dampened wave diminishes to inconsequence within microseconds. Your ear (or your contact rather) will never witness the blur of data unless your transmission line is several milliseconds long (and its loss will certainly snub the effect which still means no one will ever hear it).

Leaving the purity of theory behind, the match is not without Rloss as every physical component exhibits some value even if immeasurable by common instrumentation. Its comparison to the Rr of the antenna, again, bears on efficiency.

This scenario of the match interface to antenna interface is akin to the resonant cavity of the Laser whose light bounces between two mirrors, one perfect, the other partially transmitting, but always with a significant emission. Your speculated SWR of 200 only amplifies the loss of the system and is not typically encountered AND ignored.

A typical SWR of 1.2 or 1.5 or 2 or 3 or 5 could be ignored with impunity, but the scale of loss is in the ohmic resistance of the system components. The hazard of high SWR is more to the source and components (arc over or melt down). If you had a 5 Ohm Rr antenna with a 45 Ohms of ohmic resistance, the evident SWR of 1:1 would not guarantee an efficient solution. More folks pay attention to THAT than a 2:1 for a 25/100 Ohm Rr.

73's
Richard Clark, KB7QHC

288. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 17:52:17 UTC
From: jder8745@aol.com
Message-ID: <20040107125217.12131.00002645@mb-m05.aol.com>
Source record: 102259

Someone sed:

"Art, what's a form factor and who's Terman."

==========

That's a joke Right?

289. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 17:52:25 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <q1mq+oAZdE$$EAri@ifwtech.co.uk>
Source record: 102262

Reg Edwards wrote:
>Cec and others, what's the point in dragging in opinions of people
>nobody has ever head of and whose publications are highly unlikely ever
>to become available before all interest in the subject has faded from
>everybody's imagination.

>If anything needs to be said, would it not be better to say it just on
>one's own authority and be done with it.

We already noticed. But if anyone else tried that, guess who'd call it
"plagiarism"?

>Otherwise it falls into the category of
>"name dropping".

Cecil has it right: it's called "a reference".

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

290. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 18:07:35 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <HVXKb.7829$214.264812@bgtnsc05-news.ops.worldnet.att.net>
Source record: 102260

Hi Craig,

The 200:1 mismatch is "significant", but it does not directly cause any loss. In handwaving fashion, this is how things work.

A mismatch allows some fraction of the power to pass through the connection point, with the remainder reflected. (You can substitute voltage or current for power. The numbers are different, but the principle is the same.)

Assume the transmitter supplies some level of power, say 100 W, to the transmission line in a perfectly matched manner. A tuner will generally be required. For purposes of this discussion, nothing passes from the transmission line back to the transmitter.

The energy supplied by the transmitter has to go somewhere, and the only two choices are to the antenna or to losses in the transmission line. If the line is lossless then all of the energy goes into the antenna.

How does this happen when the junction between the line and the antenna reflects most of the power?

The power level in the line increases so that even the small percentage transferred to the antenna equals the same 100 W supplied by the transmitter. There are typically long and loud arguments in this newsgroup on the exact mechanism for this buildup in the transmission line, but it does happen within a few cycles of RF. The resulting voltages and currents will be much higher than those found in a fully matched system.

So far all is good. The antenna receives the full transmitter output, and there are no added losses.

The problem comes from the higher losses that occur in even the "lossless" transmission line when operating at high voltages and currents. In the case of ladder line these losses may still remain quite small, but in the case of RG-58 they can become quite large. The transmission line may fail at lower power levels than expected.

Soooo, the mismatch at the antenna junction cannot really be ignored, but its impact is in the transmission line, not the junction itself. Unless the mismatch is extreme the ladder line solution takes care of the loss problem.

73,
Gene, W4SZ

Craig Buck wrote:
> I am focusing on the issue of power transfer at the junction of the line and
> the antenna. Specifically, in a multiband dipole where the figures (all of
> them) will vary wildly from band to band. Maximum power transfers at

> resonance (oh no, let's not get into a war defining that). But I think it
> is safe to say by anyone's definition, a multiband dipole usually not
> operated at it's resonant frequencies. If the line is 450 ohm and the
> antenna is 2 ohm or 20 ohm or 2000 ohm, there is not resonance.
> Intuitively, I have got to think a 200:1 mismatch is significant.
>
> So what is the loss at the antenna/line junction? I understand matching at
> the transmitter end. I understand using low loss line. I don't understand
> why the mismatch at the antenna junction is ignored.

291. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 18:10:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffc4c2b_7@corp.newsgroups.com>
Source record: 102261

Craig Buck wrote:
> If the line is 450 ohm and the
> antenna is 2 ohm or 20 ohm or 2000 ohm, there is not resonance.
> Intuitively, I have got to think a 200:1 mismatch is significant.

But consider a 9:1 mismatch using 450 ohm feedline. The impedance
at the current maximum point on the feedline is 50 ohms.

> So what is the loss at the antenna/line junction? I understand matching at
> the transmitter end. I understand using low loss line. I don't understand
> why the mismatch at the antenna junction is ignored.

It's not ignored. It is taken into account by the losses in the feedline.
The power reflected by the antenna is not the antenna's problem. It is the
feedline's problem. A two ohm copper or aluminum antenna is probably very
efficient. It is just hard to feed directly.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

292. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 18:36:10 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <ukYKb.86538$xX.600223@attbi_s02>
Source record: 102170

Reg, he was a peron who also had your idea (or maybe it was Heaviside's) of winding coils on as large a diameter as possible until losses were a matter of minimum return. By experimentation he came up with desirable' form factors ' that related to number of turns wound in relationship to the form diameter upon which the coils were wound,
Unfortunately I cannot find what his criteria was for his descisiion that a pancake design could not meet.
I am winding a pancake coil at the present time wound
basket weave style on a wheel spoke basis using corrugated hardline with which to experiment with respect to my antenna coupling design.,
Terman was an American academic who substantiated a lot of his work by experimentation. Iin other words he was a do'er as well as a talker who dealt with facts rather than supporting himself with inuendo if you get my drift.
Cheers
Art

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:bthc3h$o8a$1@titan.btinternet.com...
> Art, what's a form factor and who's Terman.
>
>

293. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 18:59:14 UTC
From: richardharrison@webtv.net
Message-ID: <10502-3FFC5702-703@storefull-2315.public.lawson.webtv.net>
Source record: 102263

Buck, K4IA wrote:
"If the line is 450 ohm and the antenna is 2 ohm or 20 ohm or 2000 ohm, there is not resonance."

A resonant dipole has a drivepoint impedance that varies from near zero ohms at zero elevation above the earth to about 100 ohms at 0.3 wavelength above the earth. For harmonic resonances, the radiation resistances and the drivepoint resistances are higher than at the first (1/2-wave) resonance.

The antenna may be devoid of reactance (resonant) and have divergent drivepoint resistances depending upon which resonance, 1st, 2nd, 3rd, etc, and placement of the antenna with respect to its surroundings. Resonance and impedance matching are two different things.

Best regards, Richard Harrison, KB5WZI

294. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 19:25:30 UTC
From: richardharrison@webtv.net
Message-ID: <10502-3FFC5D2A-706@storefull-2315.public.lawson.webtv.net>
Source record: 102265

Gene Fuller, W4SZ wrote:
"The problem comes from the higher losses that occur in even the
"lossless" transmission line when operating at high voltages and
currents."

That`s right. Gene put quotes around "lossless".

The power output of the transmitter equals thaat taken by the load
inspite of hier indicated forward power. The difference is a power that
continues to circulate, much as baggage on an airport carrousel
continues to circulate until it is taken away.

Best regards, Richard Harrison, KB5WZI

295. Re: EZNEC and Invalid Use of Null

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 19:32:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <vvonm4pbddc258@corp.supernews.com>
Source record: 102264

I was alerted to this posting and tried sending email to you at both
your posting email address and the email address you gave when you
purchased EZNEC. Both bounced, so I'll try to answer the question here.

Chances are good that you've run across a bug which has been fixed. If
so, you can update your program to incorporate all the bug fixes and
manual updates. Start EZNEC, click Help, then Contents. This is the
EZNEC manual. In the left pane, click the bottom item, Support. The
Updates (Maintenance Releases) topic tells how to update your program.

The Reporting Bugs and How to Contact Me are good sections to read,
also. I do provide support for EZNEC.

If updating your program doesn't solve the problem, please contact me by
email, phone, or fax, and I'll be glad to track down the problem and fix it.

I heartily agree that abrupt termination of the program is not a
graceful way of handling errors. If, in the Reporting Bugs section
manual topic, you click the work "crash", you'll see the following text:

"Every effort has been made to prevent EZNEC from crashing. Crashes are
not acceptable, and if one occurs, every effort will be made to quickly
find and eliminate the cause."

I really do mean that. I'm not capable of creating a bug-free program.
So I've done what I believe to be the next best thing: when a bug is
found (and reported to me so I know it's there!), I'll fix it as quickly
as I can, and make the repaired program available to all users.

Roy Lewallen, W7EL

John Smith wrote:
> Has anybody else had problems with the error "Invalid Use of Null" in EZNEC?
> After that it rather inelegantly terminates the application and all unsaved
> work is lost. Not exactly a graceful way of handling errors.
>
> I'm not even sure what's causing the problem.
>
> Thanks,
> John - KD5YI
>
>

296. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 20:04:50 UTC
From: Stef <vee_ee_too_oh_doubleyou_ell@rac.ca>
Message-ID: <58oovvcg25baj3ruiugkl6hmmlh95qtp3d@4ax.com>
Source record: 102266

Yes, it is a very good choice, BUT by all means, you have to attach
the ladder line directly to your tuner.

You can add more ladderline, if you can order one with the length of
ladderline you need.
The ladderline is not easy to install because it must not be near to
metal objects. And you may cause interference problems to your close
neighbors.

Like I was saying, since you live in an appartment building, a coax
feedline will be easier to install. You will also avoid interference
with the neighbors with some sort of a good choke balun (current
balun) that will prevent the coax shield from radiating.

A trap dipole, that is resonnant on some bands will also reduce
interference due to the feedline, because it will keep swr low on the
coax.

>So, an antenna such as the Van Gorden "All Bander" would be a
>better choice? I have a tuner - LDG Z100 and I made a "Balun"
>by making a 5" dia 12 turn coax choke. I kinda like the idea of
>the all bander antenna because 1) it has more wire and 2) it has
>a longer ladder line, allowing it to reach my window. That way,
>my feedpoint would only be 7 feet from the tuner (less loss in
>the rg-58 coax).
>
>Ken KG0WX
>

297. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 20:10:41 UTC
From: Stef <vee_ee_too_oh_doubleyou_ell@rac.ca>
Message-ID: <lrpovvs3irjstl41qtidtt61tpr152sfhl@4ax.com>
Source record: 102267

you understand I meant that the choke balun has to be in the center
of the dipole

298. Re: EZNEC and Invalid Use of Null

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 21:24:03 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <TN_Kb.24428$lo3.15894@newsread2.news.pas.earthlink.net>
Source record: 102268

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:vvonm4pbddc258@corp.supernews.com...
> I was alerted to this posting and tried sending email to you at both
> your posting email address and the email address you gave when you
> purchased EZNEC. Both bounced, so I'll try to answer the question here.
>
> Chances are good that you've run across a bug which has been fixed. If
> so, you can update your program to incorporate all the bug fixes and
> manual updates. Start EZNEC, click Help, then Contents. This is the
> EZNEC manual. In the left pane, click the bottom item, Support. The
> Updates (Maintenance Releases) topic tells how to update your program.
>
> The Reporting Bugs and How to Contact Me are good sections to read,
> also. I do provide support for EZNEC.
>
> If updating your program doesn't solve the problem, please contact me by
> email, phone, or fax, and I'll be glad to track down the problem and fix
it.
>
> I heartily agree that abrupt termination of the program is not a
> graceful way of handling errors. If, in the Reporting Bugs section
> manual topic, you click the work "crash", you'll see the following text:
>
> "Every effort has been made to prevent EZNEC from crashing. Crashes are
> not acceptable, and if one occurs, every effort will be made to quickly
> find and eliminate the cause."
>
> I really do mean that. I'm not capable of creating a bug-free program.
> So I've done what I believe to be the next best thing: when a bug is
> found (and reported to me so I know it's there!), I'll fix it as quickly
> as I can, and make the repaired program available to all users.
>
> Roy Lewallen, W7EL

Thanks, Roy. It has been so long since I bought it, I just assumed it was
out of warranty. I checked your Web site and mine is 3.0.13. Pretty old, so
I'm getting the Universal update. I'll let you know if it doesn't fix it.

I guess I should have emailed you and asked if I was still entitled to
upgrades before posting.

Thanks again.

John KD5YI

299. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 21:24:51 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040107162451.09564.00002558@mb-m17.aol.com>
Source record: 102169

```
>
>Someone sed:
>
>"Art, what's a form factor and who's Terman."
>
>=====================
>
>That's a joke Right?
>
>

NOT!
If Reg didn't have a tea with him, he is nobody :-)
```

300. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 21:29:24 UTC
From: "Murray Green, K3BEQ" <mgreen@erols.com>
Message-ID: <3FFC7A34.2F9C27FA@erols.com>
Source record: 102172

In retrospect, I guess I should have clarified the sentence so that it did not encompass "any antenna". Broadcast arrays certainly were not under consideration since my question was in the arena of Amateur Radio antennas. But you are correct; they are long lasting but "mega-bucks" at today's prices.

Concerning "repeated lightning strikes decade after decade" for 2 meter types. I suspect they don't make them like they used to.

The particular Celwave antenna that I was concerned about is a 4 dipole vertical. The harness is inside the tube mount and totally inaccessible. Celwave no longer makes the harness nor the antenna for 2 meters. (Bottom line: Lack of sales.) However, as stated in some of the exchanges, 15-20 years for a $500-600 antenna is expected, although the guarantee was for 5 years when purchased in 1996. Ours lasted 8. Some compatible antennas today are only guaranteed for 2 years. Times and products have changed. Less for your money and that applies to most products, not necessarily amateur related, unfortunately. Again thanks for your input. The good old days; quality and durability. Wish we had em back.
73, Murray, K3BEQ

Richard Harrison wrote:
>
> Murry Green, K3BEQ wrote:
> "---I doubt that any antenna is going to last over 70 years."
>
> There are numerous medium wave broadcast arrays in operation
> continuously since 1934, the year of the famous communications act of
> 1934, and some still stand from years earlier. They receive inspections,
> repair, and repainting as required to keep them highly visible.
>
> A two-meter band antenna constructed of stainless steel by a quality
> manufacturer should be at least as durable. 1934 was too early in the
> use of 2 meters to provide many examples to prove the point.
>
> I worked 26 years for a corporation which used many VHF ground planes
> including 2-meter types. Nearly all were supplied by Andrew Corporation.
> They were folded monopoles and withstood repeated lightning strikes
> decade after decade. They were permanent and like the broadcast antennas
> , they received inspections and infrequent repairs when rarely required,
> but they weren`t painted.
>
> Best regards, Richard Harrison, KB5WZI

301. Re: TV reception challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 23:15:36 UTC
From: Doug McDonald <mcdonald@scs.uiuc.edu>
Message-ID: <3FFC9318.DC8C66EF@scs.uiuc.edu>
Source record: 102173

ComputerDoctor wrote:
>
>
> As WFH said, its not so much a case of "weak signal" as too many reflected
> signals.

Well, since Australia uses COFDM for digital TV, assuming that
station
is available in digital, just get a digital STB and you are in
business.

That's the Euro-DVB party line.

It's a lie. You still need signal!

That said, get a big Yagi as high as you can get, an
antenna mounted preamp, and see what you get analog. If it's
reasonably good S/N but somewhat ghosty, check up on their
digital and if they are on, go digital.

At least in the US digital TV is simply amazing ....
I'm getting reliable reception from a station with a path
loss of 183 dB (for a dipole receiving antenna of course),
using a big antenna and GaAsFet preamp.

Doug McDonald

302. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-07 23:29:50 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bti4sl$ev6$1@newshost.mot.com>
Source record: 102174

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0401061502.31c38fcd@posting.google.com...
> "Mike" <m*150@lycos.co.uk> wrote in message
news:<gsvJb.15820$FN.12805@newsfep4-winn.server.ntli.net>...
> > Hi Kevin,
> > If you have to cut bits off the coax to get the SWR down, your aerial
isn't
> > resonant on the frequency being used. The coax is acting like part of
the
> > aerial.
> > Get the aerial resonant and it doesn't matter what length of coax you
use as
> > the SWR will not change.
> >
>
> This would be true assuming the transmission line is truly 50
> ohms. It almost never really is.
> I've asked this question before, and i got similar answers. The
> point about losses in long lines improving the SWR are true of course.
> But my point is that even if the antenna is a true 50 + 0j, if the
> coax is not a true 50 ohms, and is more like 55 or 45 ohms, then the
> length of the
> coax WILL matter, in terms of the measured SWR.
> Slick

So if I get the set up:
We have a 50 ohm load (antenna) and a non-50 ohm line with a 50 ohm SWR
measuring device.

With this, the "LINE SWR" is still unchanged with line length, but the
impedance seen by the SWR meter will change with coax length. It will vary
around the Zo of the line per the Smith chart. So.... It will show a
varying SWR on this meter. The non-50 ohm like could be considered a
matching transformer, but it won't be matching what we want.

However, with a 55 or 45 ohm line this is all moot - in the noise as far
as being significant to worry about and won't mean anything in practice.

Steve K;9;d;c;i

303. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 00:31:24 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <3ffccd18_3@news1.prserv.net>
Source record: 102177
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Murray:

Don't be too hasty. I have a DB-410 with a set of DB-224 elements interlaced and a 6 meter "J" out the top which has been up at this location on a 100' tower since 1986, and was installed at another location for well over 10 years before that. I admit we have little icing, and the highest winds have been 85 MPH, but the performance has not degraded to a degree measurable by range loss.

On the other hand, a better example might be my pre-WW2 Workshop brand beam. Lets see, 2004 minus 1940 = 64. Check back in 6 years.

--
W5VPQ
Crazy George
Remove N O and S P A M imbedded in return address
"Murray Green, K3BEQ" <mgreen@erols.com> wrote in message
news:3FFB48AA.434D08C1@erols.com...
>
> Thank you, however, I doubt very seriously any antenna is going to
> last over 70 years. But appreciate your input. Best estimate I
> received from those in the business of installing the antennas is
> in the area of 15-20 years.

304. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 00:47:32 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <m1apvvg7drbjbpcqgg15h026a01ucvknet@4ax.com>
Source record: 102175

On Wed, 07 Jan 2004 15:04:50 -0500, Stef
<vee_ee_too_oh_doubleyou_ell@rac.ca> wrote:

>Yes, it is a very good choice, BUT by all means, you have to attach
>the ladder line directly to your tuner.

Not really -- I use a coax choke balun to attach ladderline to my
tuner -- works fine for multi-band operation of my dipole.

Bob
k5qwg

305. data scan needed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 01:21:34 UTC
From: James Hilins <jhilins@wi.rr.com.REMOVE>
Message-ID: <yg2Lb.225457$Eq1.162325@twister.rdc-kc.rr.com>
Source record: 102176

Can someone send me a digital scan of figure 1, page 7-1 from the ARRL antenna book, 14th edition.

306. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 04:19:14 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0401072019.2eb61ac7@posting.google.com>
Source record: 102178

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:<bti4sl$ev6$1@newshost.mot.com>...
>
> So if I get the set up:
> We have a 50 ohm load (antenna) and a non-50 ohm line with a 50 ohm SWR
> measuring device.
>
> With this, the "LINE SWR" is still unchanged with line length, but the
> impedance seen by the SWR meter will change with coax length. It will vary
> around the Zo of the line per the Smith chart. So.... It will show a
> varying SWR on this meter. The non-50 ohm like could be considered a
> matching transformer, but it won't be matching what we want.
>
> However, with a 55 or 45 ohm line this is all moot - in the noise as far
> as being significant to worry about and won't mean anything in practice.
>

I'm not certain to what degree you mean by not significant, but the
point i'm making is that the coax length will indeed affect the measured
SWR if the transmission line is not a perfect 50 ohms (it never really is).

Slick

307. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 04:34:50 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <O55Lb.54975$Fg.40342@lakeread01>
Source record: 102179

So, in Maxwell's words (paraphrased): the signal continues to reflect up and down the line until it is all finally radiated or lost in the transmission line. The mismatch at the antenna/line junction doesn't matter. Most of the loss is in the transmission line and that can be reduced by using ladder line.

Each reflection transfers what it can and the next one transfers the same percentage. If 50% gets to the antenna the first time then 50% of 50% or 25% goes the second time and 50% of 25% or 12.5% goes the third time etc etc until it eventually gets close to a total of 100% transfer. Now this sounds like calculus and is starting to scare me.

Why doesn't the signal coming back down the line in the reflected portion cancel out the signal going up the line? And if the up and down part is out of phase (as I suspect it would be) why isn't there some kind of interference resulting in distortion or reduced signal strength?

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:10502-3FFC5D2A-706@storefull-2315.public.lawson.webtv.net...
> Gene Fuller, W4SZ wrote:
> "The problem comes from the higher losses that occur in even the
> "lossless" transmission line when operating at high voltages and
> currents."
>
> That`s right. Gene put quotes around "lossless".
>
> The power output of the transmitter equals thaat taken by the load
> inspite of hier indicated forward power. The difference is a power that
> continues to circulate, much as baggage on an airport carrousel
> continues to circulate until it is taken away.
>
> Best regards, Richard Harrison, KB5WZI
>

308. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 04:37:05 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0401072037.6646a60b@posting.google.com>
Source record: 102180

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:<bti4sl$ev6$1@newshost.mot.com>...
>
> So if I get the set up:
> We have a 50 ohm load (antenna) and a non-50 ohm line with a 50 ohm SWR
> measuring device.
>
> With this, the "LINE SWR" is still unchanged with line length, but the
> impedance seen by the SWR meter will change with coax length. It will vary
> around the Zo of the line per the Smith chart. So.... It will show a
> varying SWR on this meter. The non-50 ohm like could be considered a
> matching transformer, but it won't be matching what we want.
>
> However, with a 55 or 45 ohm line this is all moot - in the noise as far
> as being significant to worry about and won't mean anything in practice.
>

I'm not certain to what degree you mean by not significant, but the
point i'm making is that the coax length will indeed affect the measured
SWR if the transmission line is not a perfect 50 ohms (it never really is).

Slick

309. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 04:56:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3kopvv4mf9e9d4q93hefl5emg5g6u5cp7k@4ax.com>
Source record: 102181

On Wed, 7 Jan 2004 23:34:50 -0500, "Craig Buck" <k4ia@cox.net> wrote:

>Why doesn't the signal coming back down the line in the reflected portion
>cancel out the signal going up the line?

This is what is called the standing wave.

>And if the up and down part is
>out of phase (as I suspect it would be) why isn't there some kind of
>interference resulting in distortion or reduced signal strength?

Because there is no load (except your meter when you discover it).

73's
Richard Clark, KB7QHC

310. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 04:58:51 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FFCE38B.6B164706@cwis.net>
Source record: 102182

JDer,
This whole thing is a joke.
'Doc

311. Re: Matching at the antenna/line junction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 05:32:08 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffcebec$1_2@corp.newsgroups.com>
Source record: 102183

Craig Buck wrote:
> Why doesn't the signal coming back down the line in the reflected portion
> cancel out the signal going up the line? And if the up and down part is
> out of phase (as I suspect it would be) why isn't there some kind of
> interference resulting in distortion or reduced signal strength?

Signals traveling in opposite directions in a lossless transmission line
do not affect each other except at an impedance discontinuity where
reflections occur. Forward waves and reflected waves are essentially
transparent to each other in a transmission line with a constant
characteristic impedance, and are the two necessary and sufficient
components of the standing wave which is indeed an interference
pattern. Interference can and often does occur without any effect
on the individual EM waves that are involved in the interference.

If the standing waves were visible light instead of RF, one would
see bright spots at the voltage maximums and dark spots at the
voltage minimums. I have learned a lot about transmission lines
from the field of optics.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

312. APS 13 DX Antenna with a good 70s tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 07:45:19 UTC
From: djboutit2@aol.com
Message-ID: <20040108024519.15401.00002898@mb-m03.aol.com>
Source record: 102184

I am have a old fisher tuner but I am looking to get a better 70s fm tuners for about $100 to $150 off eaby. I am looking at getting McIntosh Marantz Kenwood Pioneer with good am/fm slective wich one of these would you reccommond for dxing in my price range. Would using a APS 13 antenna with the tuner that you reccommond be good for dx 150miles or more. What is I put this dxing antenna 36ft higher would that work good or would I need to go higher and how high would I need to put it. Any help good in this area would be nice if you know anything I might need to know.

313. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 12:36:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btjishdco1@titan.btinternet.com>
Source record: 102185

Where is the transmission line on which the SWR is measured by the meter?

314. Re: What Balun to use 1:1 or 4:1 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 12:37:21 UTC
From: nisse <nisse@nospam.com>
Message-ID: <3FFD4F01.D6BB2382@nospam.com>
Source record: 102186

4:1 folded dipole
9:1 windom antenna

and they are just examples...

VE3PMK wrote:

> So in as much as I realise the importance of using a balun when feeding
> certain antennas, what factors determine what ratio is best suited to the
> application? Is there a general rule?
> (That is to say a long-wire is best fed with 'x:1' where a loop antenna is
> fed with 'y:1'?)
> I typically connect a center fed dipole is with a 1:1, but what
> configuration calls for the 4:1, or even the 9:1 ??
>
> (reply here please, it'll probably make an informative reading for most)
>
> Thanks,
> Pat

315. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 14:33:25 UTC
From: Stef <vee_ee_too_oh_doubleyou_ell@rac.ca>
Message-ID: <raqqvvga1ea463fololhlcesscduvpem2k@4ax.com>
Source record: 102187

ok, you're right but the coax choke is still attached right next to
your tuner isn't it? it's not 7 or 8 ft away from it? It shouldn't be
...

316. Re: 3.894.5

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 15:11:43 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3FFD7544.42B1396C@uwe.ac.uk>
Source record: 102188

greg z wrote:
>
> >ALL OF YOU PEOPLE NEED TO STAY OFF OF MY FREQUENCY. 3.894.5 IS BIG AL'S
> >> FREQUENCY. UNLESS YOU ARE INVITED DO NOT COME TO MY FREQUENCY. ESPECIALLY
> >> W8RBK ELVIE WITH HIS GIRLY VOICE. HO HO
> ---
> Isn't that the National amp tune-up freq. ?
> Greg Z
> to thine own sound be true

ROTFLMAO ;-)

It is now.

vy 73

Andy, M1EBV

317. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 15:52:23 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <vnuqvvoco5ohdtstjinj2v0ohjqfccl0gv@4ax.com>
Source record: 102189

On Thu, 08 Jan 2004 09:33:25 -0500, Stef
<vee_ee_too_oh_doubleyou_ell@rac.ca> wrote:

>ok, you're right but the coax choke is still attached right next to
>your tuner isn't it? it's not 7 or 8 ft away from it? It shouldn't be
>...

The coax choke hangs just outside the window, so I don't have to bring
the ladderline into the shack. About 5 or 6 feet of rg-8x run inside
to the antenna tuner. The whole setup tunes a 44-ft dipole fine on 30m
thru 10M.

I'm not aware of what effect that short length of coax would have.

Bob
k5qwg

318. Repeat - don't know if original really was posted...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 15:55:35 UTC
From: John <res0b06f@verizon.net>
Message-ID: <X3fLb.6891$rb2.599@nwrddc02.gnilink.net>
Source record: 102190

I am considering the ICOM 208H, and using it some of the time in a Jeep Wrangler, and sometimes moving it to a fiberglass car (Fiero GT)

My question is about antennas for both applications...
Jeep: This is more of a mounting issue... I was considering a mag mount, but there aren't really any horizontal services that would work where it would look right (where the antenna would be vertical).
I may be resigned to drilling a hole in the side of the body in front of the windshield and permanently mounting an antenna. What would be a good antenna for use with the 208H for both VHF / UHF operation that would allow a body mount on the side of the vehicle?

Fiero: This is an issue because of the plastic body and I don't want to put holes in it. There is a small (about 10" square) metal plate under the back deck, that I could put a mag mount on, but the car has been recently repainted and I don't want to have something sitting on the body that will affect the equal fading of the paint on the back deck.
I was considering a glass mount like the cell phone antennas, but can't seem to find one advertised. And it needs to handle the 55W on VHF.

Thanks for your help...
John
KD4RN

319. ARM7 board --- 2004

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 16:00:18 UTC
From: EZarm <EZ@onearth.com>
Message-ID: <btk0ae$ldr18@imsp212.netvigator.com>
Source record: 102192

arm-tec-2106

http://arm.web7days.com

320. Outbacker plus spring?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 16:04:20 UTC
From: bob@ecdentalspecialists.com
Message-ID: <b9e090da.0401080804.4c0deef0@posting.google.com>
Source record: 102191

I am mounting an Outbacker on the rear hatch (side) of my Grand Cherokee using the Diamond K400 trunk lip mount. I have a Hustler spring I was going to us on it, but wonder what opinions are about how necessary that is?

TNX

Bob, WA9JDR

321. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 16:36:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffd87a5_7@corp.newsgroups.com>
Source record: 102193

Bob Miller wrote:
> The coax choke hangs just outside the window, so I don't have to bring
> the ladderline into the shack. About 5 or 6 feet of rg-8x run inside
> to the antenna tuner. The whole setup tunes a 44-ft dipole fine on 30m
> thru 10M.
>
> I'm not aware of what effect that short length of coax would have.

If the SWR on that coax is not 1:1, it will transform the impedance
seen at the balun by the percentage of a wavelength that "5 or 6
feet" represent - about 7 degrees on 80m and about 57 degrees on 10m.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

322. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 18:05:18 UTC
From: tdonaly@aol.com
Message-ID: <20040108130518.15459.00002995@mb-m03.aol.com>
Source record: 102194

Art wrote,
(snip)
> By experimentation he came up with desirable' form
>factors ' that related to number of turns wound in relationship to the form
>diameter upon which the coils were wound,
(snip)

What! He didn't use the calculus of variations? What kind of an
academic was he? I've got a question for you, Art. How would
you set up an experiment that would solve the brachystochrone
problem? Or, if that's too hard, how would you set up an
experiment to tell you which, of all plane figures of equal
perimeters, would give you the most enclosed area?
After you've told me that, then you can tell me how I can
set up an experiment that will tell me what coil configuration
I can use that will give me the most inductance with the least
amount of loss.
73,
Tom Donaly, KA6RUH

323. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 18:10:41 UTC
From: tdonaly@aol.com
Message-ID: <20040108131041.15459.00002996@mb-m03.aol.com>
Source record: 102195

Reg wrote,
>
>Where is the transmission line on which the SWR is measured by the meter?
>

Allow me to sell you some.

324. Re: Repeat - don't know if original really was posted...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 18:36:11 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <4k8rvvcag3lah3nasulqtg5jjhffi1jqoc@4ax.com>
Source record: 102196

On Thu, 08 Jan 2004 15:55:35 GMT, John <res0b06f@verizon.net> wrote:

>I am considering the ICOM 208H, and using it some of the time in a Jeep
>Wrangler, and sometimes moving it to a fiberglass car (Fiero GT)
>
...
>Thanks for your help...
>John
>KD4RN

try www.hamstick.com they have a lot of different antennas & mounts
that could accommodate your vehicles -- perhaps the license plate
mount?

bob
k5qwg

325. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 18:44:20 UTC
From: Brian Potter <spam@not.net>
Message-ID: <Xns946ABE3D48EEnoIDtoken@130.133.1.4>
Source record: 102197

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in
news:bt75rv$3bop$1@news3.infoave.net:

> Refresh rate. Your used to seeing a 60 Hz refresh rate (actually two
> alternating frames at 30 Hz) on your home TV.
>
> If you go to Europe, you go nuts for the first few days getting used
> to the flicker as they use a 50Hz refresh rate.

What a half correct and half junk science answer!

Yes here in the UK we have a refresh rate of 50Hz on our PAL standard sets compared to 60Hz on NTSC standard TVs but I can't think why it would drive you nuts? If that's the case, you should be going mad constantly when looking at PC monitors, EPOS displays and ATM machines as most have different refresh rates from 47Hz upwards!

The reason is correct as at the top - refresh rate or more a sync problem - when a computer monitor is 'filmed' but the camera used is not 'synced' to monitor's refresh rate, you see the monitor at one rate being filmed at another - hence a mismatch.

Really the camera operator should lock the scan rate of the camera to the refresh rate of the monitor, then both are at the same rate and you get a steady image with no flicker!

Simple as that and now pretty much a feature on most professional video cameras.

Brian.

326. vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 18:51:02 UTC
From: desmoface@aol.com
Message-ID: <20040108135102.07996.00002426@mb-m16.aol.com>
Source record: 102198

Hey kids..I know gap kind of does this..but anyone think a verticle dipole would work...basically a vertical fed in the center...Im wanting a good 10 meter antenna for local stuff and was thinking about a conventional vertical..than I thought maybe I could do without the radial system and ground loss issue but just putting up a vertical dipole for 10...any thoughts??

Steve
kb8viv

327. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 19:03:04 UTC
From: Keyboard In The Wilderness <KIYW@zilch.net>
Message-ID: <JPhLb.53079$m83.52596@fed1read01>
Source record: 102199

Have built several of these -- works great -- just run the coax at 90
degrees as far as you can from the center feed point OR consider using a
coax choke or balun.

See URL:

http://www.n2aqs.com/facts.html
and URL:
http://www.n2aqs.com/

More can be found by typing "Vertical Dipole" into google
http://www.google.com/
--
73 From The Wilderness Keyboard
"Desmoface" <desmoface@aol.com> wrote in message
news:20040108135102.07996.00002426@mb-m16.aol.com...
> Hey kids..I know gap kind of does this..but anyone think a verticle dipole
> would work...basically a vertical fed in the center...Im wanting a good 10
> meter antenna for local stuff and was thinking about a conventional
> vertical..than I thought maybe I could do without the radial system and
ground
> loss issue but just putting up a vertical dipole for 10...any thoughts??
>
> Steve
> kb8viv

328. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 19:11:52 UTC
From: desmoface@aol.com
Message-ID: <20040108141152.07996.00002428@mb-m16.aol.com>
Source record: 102200

>Have built several of these -- works great -- just run the coax at 90
>degrees as far as you can from the center feed point OR consider using a
>coax choke or balun.

Yeah, exactly what i was thinking of building...was just gonna string wire up a tree...will probably have to run the coax parallell to the lower half of the antenna though...wonder what effect that will have?? Thanks again for the info..

73's de kb8viv
steve

329. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 19:15:26 UTC
From: Jim Leder <k8cxm@hotmail.com>
Message-ID: <3ffdac4d$0$21974$a0465688@nnrp.fuse.net>
Source record: 102201

Yep, had one here also. Works OK, but don't get it too high above ground. I hung mine from a tree limb about 25 feet up at the top and tied it off to a brick with some rope at the bottom. When 10 was open it worked quite a bit of DX with 100 watts, but what doesn't on 10 when it's open :+)) .

"Desmoface" <desmoface@aol.com> wrote in message
news:20040108135102.07996.00002426@mb-m16.aol.com...
> Hey kids..I know gap kind of does this..but anyone think a verticle dipole
> would work...basically a vertical fed in the center...Im wanting a good 10
> meter antenna for local stuff and was thinking about a conventional
> vertical..than I thought maybe I could do without the radial system and
ground
> loss issue but just putting up a vertical dipole for 10...any thoughts??
>
> Steve
> kb8viv

330. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 19:25:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6bbrvvo8dhtoe1ite0eonb0qs7gnsc6mhv@4ax.com>
Source record: 102202

On 08 Jan 2004 19:11:52 GMT, desmoface@aol.com (Desmoface) wrote:

>>Have built several of these -- works great -- just run the coax at 90
>>degrees as far as you can from the center feed point OR consider using a
>>coax choke or balun.
>
>Yeah, exactly what i was thinking of building...was just gonna string wire up a
>tree...will probably have to run the coax parallell to the lower half of the
>antenna though...wonder what effect that will have?? Thanks again for the
>info..
>
>73's de kb8viv
>steve

Hi Steve,

There are two ways to accomplish this.

1.) Simply run a length of coax directly up. Strip back the shield
to expose a quarterwave upper element and in the stripping back of the
shield, actually roll it back over the jacket below it to serve as the
lower element.

2.) Use a quarterwave length of tube as the lower half, run the coax
up its interior, connect the shield to it at the top of the tube, and
continue the inner coax up another quarterwave.

73's
Richard Clark, KB7QHC

331. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 19:28:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <iobrvvkeog75veosbea7u8652gftpdevui@4ax.com>
Source record: 102203

On 8 Jan 2004 18:44:20 GMT, Brian Potter <spam@not.net> wrote:
>- when a computer monitor is 'filmed' but the camera used is not
>'synced' to monitor's refresh rate, you see the monitor at one rate being
>filmed at another - hence a mismatch.

Actually, the correct term is "beat."

73's
Richard Clark, KB7QHC

332. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 20:01:15 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btkcu4$9gbu$1@news3.infoave.net>
Source record: 102204

Using a genetic algorithm to derive a fractal coil?

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20040108130518.15459.00002995@mb-m03.aol.com...
>
> Art wrote,
> (snip)
> > By experimentation he came up with desirable' form
> >factors ' that related to number of turns wound in relationship to the
form
> >diameter upon which the coils were wound,
> (snip)
>
> What! He didn't use the calculus of variations? What kind of an
> academic was he? I've got a question for you, Art. How would
> you set up an experiment that would solve the brachystochrone
> problem? Or, if that's too hard, how would you set up an
> experiment to tell you which, of all plane figures of equal
> perimeters, would give you the most enclosed area?
> After you've told me that, then you can tell me how I can
> set up an experiment that will tell me what coil configuration
> I can use that will give me the most inductance with the least
> amount of loss.
> 73,
> Tom Donaly, KA6RUH
>
>

333. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 20:08:25 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btkdbg$9hvn$1@news3.infoave.net>
Source record: 102205

It drives me nuts, because at the 25 Hz frame rate I can see the flicker.
After a few days in Merry Ole', I get used to it and don't notice it.

Every trip back to England requires a day or so to get my brain to ignore
the flicker. The other monitors you refereed to do indeed have 47 Hz refresh
rates, but they are non-interlaced video.

"Brian Potter" <spam@not.net> wrote in message
news:Xns946ABE3D48EEnoIDtoken@130.133.1.4...
> "w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in
> news:bt75rv$3bop$1@news3.infoave.net:
>

> Yes here in the UK we have a refresh rate of 50Hz on our PAL standard
> sets compared to 60Hz on NTSC standard TVs but I can't think why it would
> drive you nuts? If that's the case, you should be going mad constantly
> when looking at PC monitors, EPOS displays and ATM machines as most have
> different refresh rates from 47Hz upwards!

334. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 20:08:51 UTC
From: desmoface@aol.com
Message-ID: <20040108150851.08176.00002434@mb-m16.aol.com>
Source record: 102206

>There are two ways to accomplish this.
>
>1.) Simply run a length of coax directly up. Strip back the shield
>to expose a quarterwave upper element and in the stripping back of the
>shield, actually roll it back over the jacket below it to serve as the
>lower element.
>
>2.) Use a quarterwave length of tube as the lower half, run the coax
>up its interior, connect the shield to it at the top of the tube, and
>continue the inner coax up another quarterwave.
>
>73's
>Richard Clark, KB7QHC
>
>
Hi Richard, sounds like a good idea...thanks es 73's de kb8viv

steve

335. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 20:25:13 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <_9GdnbhIOrUpIWCi4p2dnA@comcast.com>
Source record: 102207

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:6bbrvvo8dhtoe1ite0eonb0qs7gnsc6mhv@4ax.com...
> On 08 Jan 2004 19:11:52 GMT, > 2.) Use a quarterwave length of tube as the
lower half, run the coax
> up its interior, connect the shield to it at the top of the tube, and
> continue the inner coax up another quarterwave.
>
> 73's
> Richard Clark, KB7QHC

This sounds like the simplest way. He could use an 8 foot piece of 1/2 in
Al tubing for the lower element.

I would put the thing as high as you can. For locals, you *want* a low
radiation angle.

Tam/WB2TT

336. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 20:25:21 UTC
From: desmoface@aol.com
Message-ID: <20040108152521.19067.00002510@mb-m13.aol.com>
Source record: 102208

This looks like a good plan:
http://tinyurl.com/33lmv

Steve
kb8viv

337. Re: Repeat - don't know if original really was posted...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 20:47:30 UTC
From: John <res0b06f@verizon.net>
Message-ID: <CIjLb.8579$rb2.116@nwrddc02.gnilink.net>
Source record: 102209

Excellent Bob......
Thank you ... just what I was looking for!
John
KD4RN

Bob Miller wrote:
> On Thu, 08 Jan 2004 15:55:35 GMT, John <res0b06f@verizon.net> wrote:
>
>
>>I am considering the ICOM 208H, and using it some of the time in a Jeep
>>Wrangler, and sometimes moving it to a fiberglass car (Fiero GT)
>>
>
> ...
>
>>Thanks for your help...
>>John
>>KD4RN
>
>
> try www.hamstick.com they have a lot of different antennas & mounts
> that could accommodate your vehicles -- perhaps the license plate
> mount?
>
> bob
> k5qwg
>

338. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 20:55:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hngrvv8gcaq6eohmoc79uepq93cflom2cg@4ax.com>
Source record: 102210

On Thu, 8 Jan 2004 15:01:15 -0500, "w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote:

>Using a genetic algorithm to derive a fractal coil?
>
It might end up as an IUD. Patent pending, all rights reserved. Any further discussion constitutes a violation of Intellectual Property. This thread is closed. ;-)

339. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 21:07:52 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btkgr7$9j22$1@news3.infoave.net>
Source record: 102211

Richard, don't do that while I am drinking coffee, it burns like hell when
it comes out your nose! :>)

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:hngrvv8gcaq6eohmoc79uepq93cflom2cg@4ax.com...
> On Thu, 8 Jan 2004 15:01:15 -0500, "w4jle" <W4JLE(remove this to
> reply)@pbtcomm.net> wrote:
>
> >Using a genetic algorithm to derive a fractal coil?
> >
> It might end up as an IUD. Patent pending, all rights reserved. Any
> further discussion constitutes a violation of Intellectual Property.
> This thread is closed. ;-)

340. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 21:18:56 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <4PjLb.753$lx.26@newsread2.news.pas.earthlink.net>
Source record: 102212

"Desmoface" <desmoface@aol.com> wrote in message
news:20040108135102.07996.00002426@mb-m16.aol.com...
> Hey kids..I know gap kind of does this..but anyone think a verticle dipole
> would work...basically a vertical fed in the center...Im wanting a good 10
> meter antenna for local stuff and was thinking about a conventional
> vertical..than I thought maybe I could do without the radial system and
ground
> loss issue but just putting up a vertical dipole for 10...any thoughts??
>
> Steve
> kb8viv

How about a J-Pole? Low angle radiation. The bottom end can be connected to
earth ground. In fact, I constructed one using a mast with the 1/4 wave
parallel section added 1/2 wave below the top. Real easy. No radials.

Just a thot.

John - KD5YI

341. Source for fibreglass (or whatever) insulator tube for yagi driven element

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 21:32:13 UTC
From: James W <change-to-jw22-at-trlp-dot-com@trlp.com>
Message-ID: <vvrj2tmp578ub7@corp.supernews.com>
Source record: 102213

I'm building a homebrew antenna, and have a need for some strong fibregless or other non-conductive tube or rod to seperate the driven element halves.

Does anyone know of a source for that stuff?

- jim KG7HH

342. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 21:39:17 UTC
From: desmoface@aol.com
Message-ID: <20040108163917.19067.00002515@mb-m13.aol.com>
Source record: 102214

>How about a J-Pole? Low angle radiation. The bottom end can be connected to
>earth ground. In fact, I constructed one using a mast with the 1/4 wave
>parallel section added 1/2 wave below the top. Real easy. No radials.
>

thats also an option..i wonder if'n I'll need radials with a vertical dipole??

Steve
kb8viv

343. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 22:08:41 UTC
From: Nick Smith <nospam@nospam.ntlworld.com>
Message-ID: <V_ALb.279$sb.176196@newsfep1-win.server.ntli.net>
Source record: 102145

and the persistence (?) of the tube will play a part in perceived flicker !!

Nick

344. Re: Source for fibreglass (or whatever) insulator tube for yagi driven element

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 22:08:44 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <a4lrvvshl0kgj166a1uia29is8lnqaqgvp@4ax.com>
Source record: 102215

On Thu, 08 Jan 2004 13:32:13 -0800, James W
<change-to-jw22-at-trlp-dot-com@trlp.com> wrote:

>I'm building a homebrew antenna, and have a need for some strong
>fibregless or other non-conductive tube or rod to seperate the driven
>element halves.
>
>Does anyone know of a source for that stuff?
>
Try: http://www.mcmaster.com/

For all sorts of small parts and materials.

You can possibly find cheaper, but they will do small quantities and
have nearly all of it in stock and shipped to you quickly.

HTH,
Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

345. Re: Source for fibreglass (or whatever) insulator tube for yagi driven element

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 22:22:07 UTC
From: Roger Leone <arleone.removethis.@inreach.com>
Message-ID: <YrSdnSF44bKPRWCiRVn-uw@inreach.com>
Source record: 102216

Here is another: http://www.mgs4u.com/

73,

Roger K6XQ

346. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 22:40:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6rmrvvobk3uu5l795ksoh3hfpv2sn60bj1@4ax.com>
Source record: 102217

On 08 Jan 2004 21:39:17 GMT, desmoface@aol.com (Desmoface) wrote:

>>How about a J-Pole? Low angle radiation. The bottom end can be connected to
>>earth ground. In fact, I constructed one using a mast with the 1/4 wave
>>parallel section added 1/2 wave below the top. Real easy. No radials.
>>
>
>thats also an option..i wonder if'n I'll need radials with a vertical dipole??
>
>Steve
>kb8viv

Hi Steve,

The lower dipole element IS(ARE) the radial(s).

You can follow my former instructions and simply make the upper
portion 5/8ths wavelength (if you have the room). If this makes it
too long (too close to ground) you will need radials. But for 10M
that is getting a little carried away if you can hoist a vertical
dipole.

73's
Richard Clark, KB7QHC

347. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 22:43:15 UTC
From: Ron McConnell <rcmcc@earthlink.net>
Message-ID: <72lLb.16698$6B.9854@newsread1.news.atl.earthlink.net>
Source record: 102218

> "Desmoface" <desmoface@aol.com> ... anyone think a verticle dipole
would work. ..a vertical dipole for 10...
>>Steve kb8viv

> How about a J-Pole? ..one using a mast with the 1/4 wave
parallel section added 1/2 wave below the top. Real easy. No radials.
> John Smith - KD5YI

As others have already noted, vertical dipoles do work
whether center-fed or end-fed (a.k.a. J-pole) without radials.

As already noted, hang it as high as you can manage
- just the normal advice for any antenna except N.V.I.S.

If you want to pursue the J-pole route,
go to CQ magazine's web site

http://www.cq-amateur-radio.com/

and download George VE3ERP Murphy's freeware HAMCALC
ham radio software package. (lower left corner)
(Download it just for general principles.)
Program about-23 of 250+ programs
is Murph's version of my version of Gary N3GO O'Neill's
J-pole program from his Communication
Quarterly article on end-fed half-wave antennas.
Go to Steve AA5TB Yate's website

http://www.qsl.net/aa5tb/

under "Antennas" for more info and a link
to Gary's article on how J-poles
and Zepps really work versus the popular view.

The program gives starting lengths.
For 28.5 MHz:
Using 300 ohm twinlead:

halfwave radiator wire = 196.7 inches
series matching 300 ohm section = 78.6 inches
to the 50 ohm tap point
shorted shunt stub 300 ohm section = 6.6 inches

Total length is about 23.5 feet if you hang it all up
vertically. The not-quite-quarter-wave matching section
can be horizontal with the halfwave radiator vertical
if you need/want to run it that way.

Gary's article, the program or a Smith chart show
why the commonly used 450 ohm ladder line is not
the as good a choice for matching as 300 ohm.

Have fun. Measure and cut metal and plastic,
hang it up, apply and withdraw RF energy.
Don't just do computer calculations
(as I do most of the time (sigh)).

Cheers, 73,

Ron McConnell

w2iol@arrl.net

N 40ï¿½ 46' 57.9" W 74ï¿½ 41' 21.9"
FN20ps77GU46 [FN20ps77GV75]

http://home.earthlink.net/~rcmcc

348. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 22:59:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btknc6$gl6$1@titan.btinternet.com>
Source record: 102119

"Tdonaly" wrote

> Reg wrote,
> >
> >Where is the transmission line on which the SWR is measured by the meter?
> >
>
> Allow me to sell you some.
>
=======================

Thanks for the offer. But no thanks. How did you manage to obtain stuff as rare as Saddan's WMD?

By the way, know any other suckers interested in second-hand, 10-feet coils of radiation resistance? Guaranteed to work the DX! ;o)

349. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 23:09:58 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <anorvvkpt03dqs8i74o4gqu02arnh2t1l1@4ax.com>
Source record: 102120

On Thu, 08 Jan 2004 10:36:32 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Bob Miller wrote:
>> The coax choke hangs just outside the window, so I don't have to bring
>> the ladderline into the shack. About 5 or 6 feet of rg-8x run inside
>> to the antenna tuner. The whole setup tunes a 44-ft dipole fine on 30m
>> thru 10M.
>>
>> I'm not aware of what effect that short length of coax would have.
>
>If the SWR on that coax is not 1:1, it will transform the impedance
>seen at the balun by the percentage of a wavelength that "5 or 6
>feet" represent - about 7 degrees on 80m and about 57 degrees on 10m.

Thanks, Cecil. That's a good excuse to just go ahead and shorten my
balun connections.

Bob
k5qwg

350. SOLVED! Re: Source for fibreglass (or whatever) insulator tube for yagi driven element

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-08 23:18:09 UTC
From: James W <change-to-jw22-at-trlp-dot-com@trlp.com>
Message-ID: <vvrp9jhporh0a@corp.supernews.com>
Source record: 102121

Great source... THANKS

- jim

Roger Leone wrote:
> Here is another: http://www.mgs4u.com/
>
> 73,
>
> Roger K6XQ
>
>

351. Re: Source for fibreglass (or whatever) insulator tube for yagi driven

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 00:25:13 UTC
From: k9sqg@aol.com
Message-ID: <20040108192513.14277.00002794@mb-m28.aol.com>
Source record: 102122

Jim,

Contact Alan at Max-Gain Systems.

73s,

Evan

352. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 00:51:11 UTC
From: Ron <ron@home.local>
Message-ID: <pan.2004.01.09.00.53.40.448220@home.local>
Source record: 102123
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

On Mon, 05 Jan 2004 13:40:50 -0500, Murray Green, K3BEQ wrote:

> Can any of you antenna pros out there tell me what would be the expected
> life span for a Cell Wave 4 element vertical dipole? Do not have the
> model number but the cost was close to $600 when purchased. The antenna
> is cut for 2 meters. Realize that a number of factors can be involved
> such as weather conditions, area installed etc. In this case it is up
> 80' off ground level and 300' above sea level just outside of WashDC.
>
> Second question. I recognize that Cellwave has an excellent reputation.
> Are there any other antenna companies that may compare or exceed
> Cellwave antenna products in performance and durability?
>
> Thanks.
> 73 Murray, K3BEQ

That antenna will need some service to achieve a long life. The problem is when the Coax harness deteriorates with time, I would expect that you will need to replace or repair the harness ever 10-20 years or so. Most antennas of this class fail from physical damage. Lightening, Ice Damage, Tower climbers. or something else that physically damages the antenna.

Others in the class are Decibel, Andrew, Sinclair, Kathrein - Scala, Maxrad.

Ron
N5HYH

353. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 02:41:43 UTC
From: "Ed G." <Spectrumhog@_REMOVE_StarBand.net>
Message-ID: <Xns946ABE3E58BDCFrog207Junocom@148.78.248.75>
Source record: 102124
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

>
> Others in the class are Decibel, Andrew, Sinclair, Kathrein - Scala,
> Maxrad.
>

Ron, personally, I would not include Maxrad in that class of quality.

Ed WB6SAT

(Never heard of Kathrein, so no comment on that one.)

354. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 02:56:50 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <326svv0rk14s7n70db3jntpglqellg87vk@4ax.com>
Source record: 102125

On 08 Jan 2004 18:51:02 GMT, desmoface@aol.com (Desmoface) wrote:

>Hey kids..I know gap kind of does this..but anyone think a verticle dipole
>would work...basically a vertical fed in the center...Im wanting a good 10
>meter antenna for local stuff and was thinking about a conventional
>vertical..than I thought maybe I could do without the radial system and ground
>loss issue but just putting up a vertical dipole for 10...any thoughts??
>
>Steve
>kb8viv

Cebic has a whole page of 10-10 antennas:

http://www.cebik.com/a10/anta.html

Bob
k5qwg

355. Re: Outbacker plus spring?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 03:16:34 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <M_oLb.1955$v16.476@bignews5.bellsouth.net>
Source record: 102126

"Bob Schmidt" <bob@ecdentalspecialists.com> wrote in message
news:b9e090da.0401080804.4c0deef0@posting.google.com...
> I am mounting an Outbacker on the rear hatch (side) of my Grand
> Cherokee using the Diamond K400 trunk lip mount. I have a Hustler
> spring I was going to us on it, but wonder what opinions are about how
> necessary that is?
>
> TNX
>
> Bob, WA9JDR

Bob,

If you can avoid it, I would advise against it. One thing,
they allow the antenna to flop around in the breeze and
SWR varies wildly reducing your antenna's overall effec-
tiveness. And, next, springs *can* cause mysterious
noise in your receiver, particularly as the wire braid deteriorates. Unless
you *really* gotta have the spring,
I would leave it off.

73

Jerry
K4KWH

356. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 03:19:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffe1e3b_6@corp.newsgroups.com>
Source record: 102127

Bob Miller wrote:
> Thanks, Cecil. That's a good excuse to just go ahead and shorten my
> balun connections.

But Bob, how do you know those impedance transformations are
not beneficial to your matching process? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

357. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 03:37:51 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <jmpLb.1085$Pg.640@newsread1.news.pas.earthlink.net>
Source record: 102128

"Desmoface" <desmoface@aol.com> wrote in message
news:20040108163917.19067.00002515@mb-m13.aol.com...
> >How about a J-Pole? Low angle radiation. The bottom end can be connected
to
> >earth ground. In fact, I constructed one using a mast with the 1/4 wave
> >parallel section added 1/2 wave below the top. Real easy. No radials.
> >
>
> thats also an option..i wonder if'n I'll need radials with a vertical
dipole??
>
> Steve
> kb8viv

As others have replied, no you don't.

I once made a 1/4 wave vertical and was listening to a local conversation on my IC-2AT when there occured a lightning stroke from a thunderstorm a few miles away. Although the mast and radials were grounded, the conversation disappeared for about 5 seconds and then faded back in. Electrical charge on the ungrounded vertical element. But I have never had this problem with a J-Pole since all parts of it can be at earth ground. I've also used folded vertical monopoles with the same results.

In my old age I have probably become paranoid about ungrounded driven antenna elements. I know that some (maybe all) commercial antennas are designed with networks or other devices which does the grounding. If I were to build a simple ground plane today, I would make it a bit shorter than resonant and add a shunt inductor across the feed point. That way there can be no static accumulation on the element.

By the way, we sometimes get sand/dust storms here. I have seen and heard the repeated discharges from the center pin to the shell of a PL-259 on a RG-8 line coming down from the roof during a sand storm.

Anyway, this is not to convince anyone that a J-Pole is a cure-all or even the best choice. I just wanted to tell about what drives my choices and tell about a couple of my experiences. Anything you choose will be just fine, as long as you are aware of its properties.

Have fun.

John - KD5YI

358. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 04:14:02 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <j9asvv0dcvvleqen6ldfcco1eg82bvm9rd@4ax.com>
Source record: 102129

On Thu, 08 Jan 2004 21:19:01 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Bob Miller wrote:
>> Thanks, Cecil. That's a good excuse to just go ahead and shorten my
>> balun connections.
>
>But Bob, how do you know those impedance transformations are
>not beneficial to your matching process? :-)

Dammit, Cecil, I don't know :-(

So, I'll keep what I have in place (it actually works fine), but build
an alternative balun. See what happens.

Bob
k5qwg

359. Re: Repeat - don't know if original really was posted...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 04:36:18 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <6dqLb.1497$lx.529@newsread2.news.pas.earthlink.net>
Source record: 102130

"John" <res0b06f@verizon.net> wrote in message
news:X3fLb.6891$rb2.599@nwrddc02.gnilink.net...
> I am considering the ICOM 208H, and using it some of the time in a Jeep
> Wrangler, and sometimes moving it to a fiberglass car (Fiero GT)
>
> My question is about antennas for both applications...
> Jeep: This is more of a mounting issue... I was considering a mag
> mount, but there aren't really any horizontal services that would work
> where it would look right (where the antenna would be vertical).
> I may be resigned to drilling a hole in the side of the body in front of
> the windshield and permanently mounting an antenna. What would be a
> good antenna for use with the 208H for both VHF / UHF operation that
> would allow a body mount on the side of the vehicle?
>
> Fiero: This is an issue because of the plastic body and I don't want to
> put holes in it. There is a small (about 10" square) metal plate under
> the back deck, that I could put a mag mount on, but the car has been
> recently repainted and I don't want to have something sitting on the
> body that will affect the equal fading of the paint on the back deck.
> I was considering a glass mount like the cell phone antennas, but can't
> seem to find one advertised. And it needs to handle the 55W on VHF.
>
> Thanks for your help...
> John
> KD4RN

Assuming you want to build it...

A J-Pole doesn't care whether the car has a fiberglass body or not. In one of the ARRL books, I saw a nice stacked J-Pole made for marine use on a fiberglass boat. Of course, you probably shouldn't stack it like he did because it would probably knock out the fluorescent tubes when you drive into a service station.

I hope I don't get the tag "J-Pole Man". (Sigh)

John - KD5YI

360. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 04:36:49 UTC
From: richardharrison@webtv.net
Message-ID: <10502-3FFE2FE1-935@storefull-2315.public.lawson.webtv.net>
Source record: 102131

KB8IV wrote:
"I`m wanting a good 10 meter antenna for local stuff and was thinking about a conventional vertical...then I thought maybe I could do without the radial system---."

Good thinking. I worked for an oil and gas company which was assigned a 33 MHz frequency shared with a few others in the same industry but available to us almost at any location within the U.S.A. We made good use of the frequency for land mobile operations with dozens of fixed stations and hundreds of mobile units. It worked very well for the radio "line-of-sight. Usual FM base station power was 500 watts. The mobiles were 50 watt units. Higher base station power is justified by noiser receiving conditions in a mobile.

In our international operations we had many HF installations. Some were AM and some were SSB.

I made a trip to Bolivia to relocate a HF station from a site which was being seized by the government to accomodate homeless rural people who were descending upon La Paz to seek their fortunes. Relocation of the station was easier said than done but was ultimately successful. We had offices in La Paz and in Cochabamba and we were drilling in the Chaco Jungle.

While in Bolivia, I got a request from Argentina. They wanted an aircraft beacon installed on Tierra del Fuego, local land mobiles that worked, and radio between Tierra del Fuego and Buenos Aires. Strikes frequently interrupted normal communications. The Peronistas wanted Juan Peron back and the strikes were part of their agitation. So, I went to Argentina.

In Argentina, we had RCA and RCA Radiomarine SSB equipment. Our aircraft were equipped with Collins equipment which was dependale and our pilots knew how to use it.

The RCA SSB was a problem. The automobile units had plastic coil forms which melted in normal service. This was far removed from the equator. It was near the antarctic and damn cold.

Operations were a problem. Base stations were used to communicate between land bases, vehicles, boats, and tankers taking on oil we had found and were producing. Multiple crystals meant operators often couldn`t communicate because they were often switched to the wrong channel. They also were mystified by knobs identified as "speech clarifiers".

Fortunately we had some 5-watt Motorola Handitalkies on our stateside 33 MHz FM frequency, on loan to our Argentine operation.

After I installed the low-frequency aircraft homing beacon, the next problem was getting reliable communications between our main bases in Rio Grande and San Sebastian, almost 40 miles apart.

This is a land where hurricane force winds blow nearly every day. The wind is so prevalent it is relied upon for aircraft operation. Commercial air service to Rio Grande was cancelled when the wind was calm as the runways were too short for take-offs and landings in the calm. Commercial flights used DC-6`s (Aerolineas) and C-46`s (Austral). Our company flew a DC-3 back and forth between Buenos Aires and Tierra del Fuego. We had Beechcrafts on the Island.

For line-of-sight we needed elevation for 33 MHz antennas. We had welders, line pipe, steel handbooks and I had a slide rule. So, I went to work and produced guyed towers at both ends of the path. They were a little over 100 feet and I put vertical homemade resonant vertical centerfed dipoles for 33 MHz at their tops. These were connected by RG-8 with the 5-watt radios in the offices. Voila! We were in business with full quieting. No bandswitching. No clarifiers. No melted coils in the Motorolas.

We had a second office in Rio Grande but it didn`t need to talk to San Sebastian. So I made a short self-supporting line pipe tower for that office. It was about 30 feet. It too had a vertical dipole and a 5-watt Motorola Handitalkie. When I made a call on that radio, an oil field supply company in Midland Texas who shared the frequency came back to me! We`re talking real DX and it was solid. As has been said, that`s the way it is when the band is open.

Let me correct a statement in this thread that the loweer dipole element is a radial. It is not. It is an axial and it radiates. Radials are supposed to be balanced so that they do not radiate.

It is true that radials provide a 2nd antenna connection as does the 2nd dipole element. That is where the similarity ends.

For the radio connection with Buenos Aires, the public correspondence station, Radio Pacheco, seemed to work during telephone strikes. So we went to work. It operated on certain HF channels. Al Hopson, our chief pilot in Argentina was also a ham and he had had recognized a Hallicrafters HT-20 that Glen McCarthy had left behind in the Chaco Jungle of Bolivia when we bought his consession. Al put the HT-20 away for safe keeping and asked me if I wanted it. He fetched it for me. I went to Buenos Aires and visited Radio Boliche, "Barato y chi chi". While there I bought a 2nd-hand Eddystone receiver that worked good and was cheap (barato y chi chi just as their slogan said).

Back on the island again, it was out with the slide rule and my precious copy of Ed Laport`s "Radio Antenna Engineering". When we gave Buenos Aires a call with that HT-20 connected to that rhombic, we really rattled their cans. The were very slow to believe that we were so far

away.

We ordered the FM stuff they needed to replace all the SSB crap, and left them delighted with the improvements already made.

Yes. Centerfed vertical dipoles work fine without radials. They have nulls at their tip ends which reduce mutual impedance with stuff in those directions. Centerfed antennas are mostly independent of the earth at close range when low-angle radiation is considered.

Best regards, Richard Harrison, KB5WZI

361. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 06:17:11 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FFE4767.CFA772CC@cwis.net>
Source record: 102132

Richard,
I think you'd probably have to round off the corners. Don't
you?
'Doc

362. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 06:20:19 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FFE4823.7B1FA05E@cwis.net>
Source record: 102133

Richard,

PLEASE put down your coffee...

What about insertion losses?

(I ain't signing this one)

363. Re: Form factor for inductances

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 06:43:32 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btliit$a0rf$1@news3.infoave.net>
Source record: 102134

But is it a conjugal match?

"'Doc" <w5lz@cwis.net> wrote in message news:3FFE4823.7B1FA05E@cwis.net...
>
>
> Richard,
>
> PLEASE put down your coffee...
>
>
> What about insertion losses?
>
> (I ain't signing this one)

364. Should this design work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 11:26:02 UTC
From: Michel <pd1aiw_@amsat.org>
Message-ID: <3ffe8fc2$0$257$4d4ebb8e@news.nl.uu.net>
Source record: 102135

Just this morning I start thinking about a new j-pole design.

After some search on the internet, I made a simple drawing and put it up here:
http://www.fluxfm.nl/jpole/antenna.htm

Would you please be so kind and take a look up there, and let me know of the way I want to build it can work, or not
work at all because of?

Looking forward for any reply!

Best regards,

Michel

PD1AIW

365. Re: Stupid question G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 12:06:53 UTC
From: "Dr. Daffodil Swain" <wa4jm@earthlink.net>
Message-ID: <xPwLb.98$i4.18@newsread1.news.atl.earthlink.net>
Source record: 102136

Any attempt to improve on a working antenna situation has generally made it worse.

"Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message news:j9asvv0dcvvleqen6ldfcco1eg82bvm9rd@4ax.com...
> On Thu, 08 Jan 2004 21:19:01 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
> >Bob Miller wrote:
> >> Thanks, Cecil. That's a good excuse to just go ahead and shorten my
> >> balun connections.
> >
> >But Bob, how do you know those impedance transformations are
> >not beneficial to your matching process? :-)
>
> Dammit, Cecil, I don't know :-(
>
> So, I'll keep what I have in place (it actually works fine), but build
> an alternative balun. See what happens.
>
> Bob
> k5qwg
>

366. Re: Should this design work?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 12:42:38 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <AvKdnXeBuag0O2OiRVn-tw@ctc.net>
Source record: 102138

>
>
> After some search on the internet, I made a simple drawing and put it up here: http://www.fluxfm.nl/jpole/antenna.htm
>
>
>
> Would you please be so kind and take a look up there, and let me know of the way I want to build it can work, or not
> work at all because of?
>

Not sure what would hapen with the 1/4 wave matching secton but if you extend it to 1/2 wavelenght you will find you have just reinvented the double zepp antenna with about 1.8 db of gain. If you extend each side to 1.3 wavelengths devided by 2 you will have an extended couble zepp with more gain.

367. 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 12:46:24 UTC
From: Marvin Rosen <puns@verizon.net>
Message-ID: <AoxLb.2948$Lu1.327@nwrddc02.gnilink.net>
Source record: 102137

In reference to a previous post concerning
the construction of a center-fed 10 mtr vertical.
Is it posible to construct a 10, 6 & 2 mtr all-in
one center fed vertical using coax as the feed line?

368. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 14:19:44 UTC
From: desmoface@aol.com
Message-ID: <20040109091944.29446.00002361@mb-m02.aol.com>
Source record: 102139

>Yes. Centerfed vertical dipoles work fine without radials. They have
>nulls at their tip ends which reduce mutual impedance with stuff in
>those directions.

WOW!! That sounds like the makings of an Indiana Jones story line hehe..Thanks
for the entertaining and informative post..73's de kb8viv..

steve

369. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 14:22:49 UTC
From: richardharrison@webtv.net
Message-ID: <1263-3FFEB939-22@storefull-3257.bay.webtv.net>
Source record: 102141

I wrote:
"Centerfed antennas are mostly independent of earth at close range when low-angle radiation is considered."

Sorry I left out the word "vertical". Certainly a low horizontal dipole is not independent of earth, but is closely coupled to the earth.

Best regards, Richard Harrison, KB5WZI

370. Re: Repeat - don't know if original really was posted...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 14:32:10 UTC
From: John <res0b06f@verizon.net>
Message-ID: <KXyLb.1136$Mt4.153@nwrddc03.gnilink.net>
Source record: 102140

Hi John
Thanks for your suggestion... I probably am looking to buy a commercial product right now. When I move the rig to the house, I'll look into building one.

J-Pole Man doesn't sound like so bad a name.... it's kind of "cool" .. sort of "MTV-ish".... Of course it could also sound like a drug lord!
Thanks again.
John
KD4RN

John Smith wrote:

> "John" <res0b06f@verizon.net> wrote in message
> news:X3fLb.6891$rb2.599@nwrddc02.gnilink.net...
>
>>I am considering the ICOM 208H, and using it some of the time in a Jeep
>>Wrangler, and sometimes moving it to a fiberglass car (Fiero GT)
>>
>>My question is about antennas for both applications...
>>Jeep: This is more of a mounting issue... I was considering a mag
>>mount, but there aren't really any horizontal services that would work
>>where it would look right (where the antenna would be vertical).
>>I may be resigned to drilling a hole in the side of the body in front of
>>the windshield and permanently mounting an antenna. What would be a
>>good antenna for use with the 208H for both VHF / UHF operation that
>>would allow a body mount on the side of the vehicle?
>>
>>Fiero: This is an issue because of the plastic body and I don't want to
>>put holes in it. There is a small (about 10" square) metal plate under
>>the back deck, that I could put a mag mount on, but the car has been
>>recently repainted and I don't want to have something sitting on the
>>body that will affect the equal fading of the paint on the back deck.
>>I was considering a glass mount like the cell phone antennas, but can't
>>seem to find one advertised. And it needs to handle the 55W on VHF.
>>
>>Thanks for your help...
>>John
>>KD4RN
>
>
>
>
> Assuming you want to build it...
>

> A J-Pole doesn't care whether the car has a fiberglass body or not. In one
> of the ARRL books, I saw a nice stacked J-Pole made for marine use on a
> fiberglass boat. Of course, you probably shouldn't stack it like he did
> because it would probably knock out the fluorescent tubes when you drive
> into a service station.
>
> I hope I don't get the tag "J-Pole Man". (Sigh)
>
> John - KD5YI
>
>

371. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 15:18:07 UTC
From: Keyboard In The Wilderness <KIYW@zilch.net>
Message-ID: <PCzLb.55730$m83.35174@fed1read01>
Source record: 102142

RE: the vertical dipole and radials

Just picture a 1/2 dipole horizontally -- then rotate it 90 degrees (or stand it on end) -- same antenna -- different polarization.

So this picture should clarify why "No Radials".

The lower end is the other half of the dipole - it radiates in conjunction with the upper half.

Others have advised you about the radiation from "Radials"

--
73 From The Wilderness Keyboard

372. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 16:20:49 UTC
From: Jim Leder <k8cxm@hotmail.com>
Message-ID: <3ffed4df$0$88800$a04e5680@nnrp.fuse.net>
Source record: 102143

But, don't get it up to high. EZNEC shows that when the bottom end is a half wave length above ground, the TOA goes up over 40 with not much improvement in gain. The vertical half wave dipole seems to be at it's best a quarter wave above ground (meaning the bottom end is only 8 feet up on 10). So, the top insulator should be up about 24-25 feet. When installed at this height, the TOA is below 20 and the gain is almost the same as the higher version, roughly 1.4dbi. The antenna does not require radials.

"Keyboard In The Wilderness" <KIYW@zilch.net> wrote in message news:PCzLb.55730$m83.35174@fed1read01...
> RE: the vertical dipole and radials
>
> Just picture a 1/2 dipole horizontally -- then rotate it 90 degrees (or
> stand it on end) -- same antenna -- different polarization.
>
> So this picture should clarify why "No Radials".
>
> The lower end is the other half of the dipole - it radiates in conjunction
> with the upper half.
>
> Others have advised you about the radiation from "Radials"
>
> --
> 73 From The Wilderness Keyboard
>
>

373. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 16:31:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btml1jeva1@titan.btinternet.com>
Source record: 102144

Peter, wot's a 'mode'. Don't bother to answer. ;o)

All I know is that there are a great number of them. I became aware of their existence when in 1944 I first twiddled the 3 slugs in the matching section of rectangular waveguide (the tuner) between Randall and Boot's 50 KW magnetron and a renewed radar dish. This was a tedious, aggravating process because when tightening the locking nuts the slugs never failed rotate with the nuts so returning the process to square one.

I have always been under the impression Modes were invented by academics just to explain by using pictures in their published papers the peculiarities of waves when confined to waveguides. As I have never come across another waveguide since 1946, and my favourite band has always been 160 meters, what microscopic amount of knowledge of modes I may have gleaned from tightening nuts while lying on my belly inside an aircraft fuselage has long ago evaporated.

On the other hand, 1875 telegraphists' equations have always provided good enough answers when used to analyse behaviour of single wire lines including antennas. If it looks by eye like a line it will behave like one. After all, the very first telegraph lines were just single wires strung up on poles. All have uniformly distributed R,L,C & G except at their ends. And end effects, which are related to wire diameter, are calculable and can (if necessary for precision) be accounted for.

The only problem, and it's not a serious one in practice, using classical transmission line analysis is due to uncertainty in the antenna's environment such as height above ground, ground conductivity, or dogs' hind legs. or trees. Attempts to use some sort of mode analysis to relieve environmental uncertainty would be just as likely to fail.

The modelling and number-crunching methods of EZNEC-type programs, which are neither classical nor modal, will eventually remove the guesswork by fully including the environment in the model. But the time and effort taken to enter the data and to ensure absence of errors may prove overwhelming to professionals and amateurs alike.

I would think trying to find a use for modes would be as fruitless as considering what happens to the so-called power which is supposed to be reflected back into transmitters.

Reg.

374. inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 17:08:43 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0401090908.6362402a@posting.google.com>
Source record: 102146

My last attempt on this subject only attracted lurkers and not those
that were technically minded so I thought I would try harder at the
communication side.
If one uses the present day modeling programs, items such as
inductance
are taken as point loads of zero length. Since in the real world
inductance does has length a way of modeling it would be to redraw it
as a distrubited
load along the length of the actual inductor. When doing this modeling
shows that current DOES NOT Change over the length of the inductance,
thus there is no radiation..
Ignoring intercapacitance this supports the previous stand of Tom and
Roy.
Taking this point further, one wonders why inductors in the real world
are not designed to be a point load, albiet in a two dimensional
world.
so that the length origionaly used by following published form factor
can be used to RADIATE . In this sense it follows that inductances
should be made in spiral form with special attention made to reducing
intercapacitance ala basket weave pancake design.
The above flies in the face of what is presently published in books
but so is the relationship of linear designs based on distance
between physical dipoles instead of the distance between current max
points so books are not infallable.
The above does also question the practice of grounding a center
point of a wound inductance since the above suggests that current is
NOT zero at that point! Since Roy was correct in the first place
maybe he will add some comments on what may be fallacious conclusions
that I made on my part.
Best regards
Art

375. Re: Repeat - don't know if original really was posted...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 17:38:05 UTC
From: KA9CAR <ka9car@a_r_r_l_.net>
Message-ID: <btmou0$j9c$1@news1.tribune.com>
Source record: 102147

I have a Tracker. Similar problem to your Jeep.

http://user.mc.net/~jdewey/sleeve_dipole/

Note that there is a commercial product which I reference that is available.

KA9CAR
John

"John" <res0b06f@verizon.net> wrote in message
news:KXyLb.1136$Mt4.153@nwrddc03.gnilink.net...
> Hi John
> Thanks for your suggestion... I probably am looking to buy a commercial
> product right now. When I move the rig to the house, I'll look into
> building one.
>
> J-Pole Man doesn't sound like so bad a name.... it's kind of "cool" ..
> sort of "MTV-ish".... Of course it could also sound like a drug lord!
> Thanks again.
> John
> KD4RN
>
>
>
> John Smith wrote:
>
> > "John" <res0b06f@verizon.net> wrote in message
> > news:X3fLb.6891$rb2.599@nwrddc02.gnilink.net...
> >
> >>I am considering the ICOM 208H, and using it some of the time in a Jeep
> >>Wrangler, and sometimes moving it to a fiberglass car (Fiero GT)
> >>
> >>My question is about antennas for both applications...
> >>Jeep: This is more of a mounting issue... I was considering a mag
> >>mount, but there aren't really any horizontal services that would work
> >>where it would look right (where the antenna would be vertical).
> >>I may be resigned to drilling a hole in the side of the body in front of
> >>the windshield and permanently mounting an antenna. What would be a
> >>good antenna for use with the 208H for both VHF / UHF operation that
> >>would allow a body mount on the side of the vehicle?
> >>
> >>Fiero: This is an issue because of the plastic body and I don't want to
> >>put holes in it. There is a small (about 10" square) metal plate under
> >>the back deck, that I could put a mag mount on, but the car has been
> >>recently repainted and I don't want to have something sitting on the

> >>body that will affect the equal fading of the paint on the back deck.
> >>I was considering a glass mount like the cell phone antennas, but can't
> >>seem to find one advertised. And it needs to handle the 55W on VHF.
> >>
> >>Thanks for your help...
> >>John
> >>KD4RN
> >
> >
> >
> >
> > Assuming you want to build it...
> >
> > A J-Pole doesn't care whether the car has a fiberglass body or not. In
one
> > of the ARRL books, I saw a nice stacked J-Pole made for marine use on a
> > fiberglass boat. Of course, you probably shouldn't stack it like he did
> > because it would probably knock out the fluorescent tubes when you drive
> > into a service station.
> >
> > I hope I don't get the tag "J-Pole Man". (Sigh)
> >
> > John - KD5YI
> >
> >
>

376. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 17:44:07 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <A7WdnRZ18fjvdWOiRVn-vg@comcast.com>
Source record: 102148

Jim,

I don't know where you get this from. I just ran EZNEC on a 10 m vertical dipole with the following results:

A) Bottom at 8 feet, gain at 5 degrees is -2.44 dbi.

B) Bottom at 42 feet, gain at 5 degrees is +2.75 dbi.

If you want to work locals, the greater height will also help to get clear local obstructions, like small hills

Tam/WB2TT
"Jim Leder" <k8cxm@hotmail.com> wrote in message
news:3ffed4df$0$88800$a04e5680@nnrp.fuse.net...
> But, don't get it up to high. EZNEC shows that when the bottom end is a half
> wave length above ground, the TOA goes up over 40 with not much improvement
> in gain. The vertical half wave dipole seems to be at it's best a quarter
> wave above ground (meaning the bottom end is only 8 feet up on 10). So, the
> top insulator should be up about 24-25 feet. When installed at this height,
> the TOA is below 20 and the gain is almost the same as the higher version,
> roughly 1.4dbi. The antenna does not require radials.
>
>
> "Keyboard In The Wilderness" <KIYW@zilch.net> wrote in message
> news:PCzLb.55730$m83.35174@fed1read01...
> > RE: the vertical dipole and radials
> >
> > Just picture a 1/2 dipole horizontally -- then rotate it 90 degrees (or
> > stand it on end) -- same antenna -- different polarization.
> >
> > So this picture should clarify why "No Radials".
> >
> > The lower end is the other half of the dipole - it radiates in conjunction
> > with the upper half.
> >
> > Others have advised you about the radiation from "Radials"
> >
> > --
> > 73 From The Wilderness Keyboard
> >

> >
>
>

377. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 17:46:56 UTC
From: "Murray Green, K3BEQ" <mgreen@erols.com>
Message-ID: <3FFEE910.E239CE71@erols.com>
Source record: 102149
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

***Thank you Ron. Since my initial message and responses here on the newsgroup, coupled with "homework" we find that Celwave no longer makes the 4 el vert dipole for the 2 meter spectrum. Nor do they make replacement harnesses. Suspect drop in sales is the primary reason, but not certain.

Looking seriously at Decibel's compatible antenna. We are however, going to open up the Celwave, remove and inspect the harness and if possible determine what went wrong. Possibility that there could be damage from lightning which would be covered by our insurance policy. Thanks again.
73, Murray, K3BEQ
==========

Ron wrote:
>
> On Mon, 05 Jan 2004 13:40:50 -0500, Murray Green, K3BEQ wrote:
>
> > Can any of you antenna pros out there tell me what would be the expected
> > life span for a Cell Wave 4 element vertical dipole? Do not have the
> > model number but the cost was close to $600 when purchased. The antenna
> > is cut for 2 meters. Realize that a number of factors can be involved
> > such as weather conditions, area installed etc. In this case it is up
> > 80' off ground level and 300' above sea level just outside of WashDC.
> >
> > Second question. I recognize that Cellwave has an excellent reputation.
> > Are there any other antenna companies that may compare or exceed
> > Cellwave antenna products in performance and durability?
> >
> > Thanks.
> > 73 Murray, K3BEQ
>
> That antenna will need some service to achieve a long life. The problem is
> when the Coax harness deteriorates with time, I would expect that you will
> need to replace or repair the harness ever 10-20 years or so. Most
> antennas of this class fail from physical damage. Lightening, Ice Damage,
> Tower climbers. or something else that physically damages the antenna.
>
> Others in the class are Decibel, Andrew, Sinclair, Kathrein - Scala,
> Maxrad.
>
> Ron
> N5HYH

378. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 17:47:30 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <ZMWdnZZ0PKmhdGOiRVn-jQ@comcast.com>
Source record: 102150

"Keyboard In The Wilderness" <KIYW@zilch.net> wrote in message
news:PCzLb.55730$m83.35174@fed1read01...
> RE: the vertical dipole and radials
>
> Just picture a 1/2 dipole horizontally -- then rotate it > 90 degrees
(or.............................

He is better off with the sleeve antenna, because he can't run the feedline
off at a right angle.

Tam/WB2TT

379. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 17:56:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3ffeeb99_2@127.0.0.1>
Source record: 102151

Art Unwin KB9MZ wrote:
> In this sense it follows that inductances
> should be made in spiral form with special attention made to reducing
> intercapacitance ala basket weave pancake design.

Art, I suspect a spiral pancake inductor would have
a low 'Q' and therefore high losses. Have you measured
the 'Q' of such an inductor?
--
73, Cecil, W5DXP

380. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 18:25:53 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <RmCLb.8239$xy6.20018@attbi_s02>
Source record: 102152

No I have not, but I have made one using hardline coax
for use on the antenna when the weather gets better.
we have ice up here !.
What is the basis of your suspicioun regarding 'Q' ?
Regards
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:3ffeeb99_2@127.0.0.1...
> Art Unwin KB9MZ wrote:
> > In this sense it follows that inductances
> > should be made in spiral form with special attention made to reducing
> > intercapacitance ala basket weave pancake design.
>
> Art, I suspect a spiral pancake inductor would have
> a low 'Q' and therefore high losses. Have you measured
> the 'Q' of such an inductor?
> --
> 73, Cecil, W5DXP
>

381. Re: 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 18:28:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9rrtvv86iq17k9j74nmo8imgi7586rbogd@4ax.com>
Source record: 102153

On Fri, 09 Jan 2004 12:46:24 GMT, "Marvin Rosen" <puns@verizon.net>
wrote:

> In reference to a previous post concerning
>the construction of a center-fed 10 mtr vertical.
>Is it posible to construct a 10, 6 & 2 mtr all-in
>one center fed vertical using coax as the feed line?
>
Hi Marvin,

Sure, merely more elaborate, and with elaboration comes the pain of implementation. By rough math, it could end up as 5 sections at 2M, and something under 2 sections for 6M - all in terms of quarterwave length elements.

The trick is in that "partial" second element for 6M - not to speak of the interactions of tuning to three bands. Perhaps a 5/8ths for 6 instead and a quarter and two halfwaves for 2M. This all depends on how gracefully the three bands can be made to resonate with the same fixed sections of wire. Then the question becomes, can you do the same trick for the lower half (tubing) the line is coming up through (if you choose that feedline path)? Would it be worth it (simply take what you got and juggle the tuning in the upper element)?

For the side fed vertical dipole, rummage through the adds or online designs for a similar horizontal dipole. Turn 90ï¿½.

73's
Richard Clark, KB7QHC

382. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 18:32:29 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <1tCLb.104$Tw6.72@nwrddc01.gnilink.net>
Source record: 102154

```
"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:ZMWdnZZ0PKmhdGOiRVn-jQ@comcast.com...
>
> "Keyboard In The Wilderness" <KIYW@zilch.net> wrote in message
> news:PCzLb.55730$m83.35174@fed1read01...
> > RE: the vertical dipole and radials
> >
> > Just picture a 1/2 dipole horizontally -- then rotate it > 90 degrees
> (or.............................
>
> He is better off with the sleeve antenna, because he can't run the
feedline
> off at a right angle.
>
> Tam/WB2TT
>
>Or End Feeding.

Dale W4OP
```

383. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 19:26:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3fff0093$1_2@127.0.0.1>
Source record: 102155

Art Unwin KB9MZ wrote:
> No I have not, but I have made one using hardline coax
> for use on the antenna when the weather gets better.
> we have ice up here !.
> What is the basis of your suspicioun regarding 'Q' ?

The flux from each loop flows across all the other
loops. A web search for "pancake coil" turns up some
interesting stuff including one company's claim that
their coil-on-chip process turns out coils with double
the 'Q' of pancake coils.

Incidentally, a pancake coil doesn't solve the magnitude
difference problem between current in and current out in
a standing wave antenna. It may not radiate but it certainly
has a delay through the coil which is what causes the current
in to be different from the current out in standing wave
antennas. This is explained on my web page at the bottom
of the page.
--
73, Cecil, http://www.qsl.net/w5dxp/current.htm

--
73, Cecil, W5DXP

384. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 20:07:33 UTC
From: richardharrison@webtv.net
Message-ID: <1435-3FFF0A05-46@storefull-3252.bay.webtv.net>
Source record: 102156

Reg Edwards, G4FGQ wrote:
"I have always been under the impression Modes were invented by academics just to explain by using pictures in their published papers the pecularities of waves when confined to wave guides."

Could well be. If anyone would like to see some of these pictures, King, Mimno, and Wing have a well illustrated section beginning on page 243 of "Transmission Lines, Antennas, and Wave Guides". They even include a single-wire line, near or far from the earth, in the text.

It isn`t only telegraph which used single-wire transmission lines. In Tierra del Fuego, there was a single galvanized steel wire running along the 40-miile long road between Rio Grande and San Sebastian used for telephone service to the sheep raising "estancias" (stations) along the route. It was hardly insulated at all. It must have worked, but we never imitated nor tried to gain access. We interfered with the estancias as little as possible. Drilling for oil was imposition enough. In return we were the finders, producers, refiners, and marketers of petroleum products and natural gas on the Argentine side of the island.

Best regards, Richard Harrison, KB5WZI

385. Re: 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 20:24:58 UTC
From: Marvin Rosen <puns@verizon.net>
Message-ID: <u6ELb.932$6p4.248@nwrddc03.gnilink.net>
Source record: 102157

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:9rrtvv86iq17k9j74nmo8imgi7586rbogd@4ax.com...
> On Fri, 09 Jan 2004 12:46:24 GMT, "Marvin Rosen" <puns@verizon.net>
> wrote:
>
> > In reference to a previous post concerning
> >the construction of a center-fed 10 mtr vertical.
> >Is it posible to construct a 10, 6 & 2 mtr all-in
> >one center fed vertical using coax as the feed line?
> >
> Hi Marvin,
>
> Sure, merely more elaborate, and with elaboration comes the pain of
> implementation. By rough math, it could end up as 5 sections at 2M,
> and something under 2 sections for 6M - all in terms of quarterwave
> length elements.
>
> The trick is in that "partial" second element for 6M - not to speak of
> the interactions of tuning to three bands. Perhaps a 5/8ths for 6
> instead and a quarter and two halfwaves for 2M. This all depends on
> how gracefully the three bands can be made to resonate with the same
> fixed sections of wire. Then the question becomes, can you do the
> same trick for the lower half (tubing) the line is coming up through
> (if you choose that feedline path)? Would it be worth it (simply take
> what you got and juggle the tuning in the upper element)?
>
> For the side fed vertical dipole, rummage through the adds or online
> designs for a similar horizontal dipole. Turn 90°.
>
> 73's
> Richard Clark, KB7QHC

386. Humvee antenna advice, please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 20:41:28 UTC
From: "Matthew D." <astrogoth@removethisadelphia.net>
Message-ID: <YlELb.10047$uF6.2980072@news1.news.adelphia.net>
Source record: 102158

Howdy folks,

I want to put my new FT-850 in an old ex-USMC Slantback Humvee. The Humvee has two huge whips already mounted on it and a smaller VHF whip. I can change any of these or install others. They're not being used now. As you can imagine size isn't a factor. A big whip is fine. Can anyone advise me on the best HF whip and/or tuner to try?

Thanks all!

MD

387. Re: Humvee antenna advice, please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 21:23:09 UTC
From: MD <ve3tmt@rac.ca>
Message-ID: <7ZELb.9030$fm4.51098@news20.bellglobal.com>
Source record: 102160

"Matthew D." <astrogoth@removethisadelphia.net> wrote in message
news:YlELb.10047$uF6.2980072@news1.news.adelphia.net...
As you can imagine size isn't a factor.

That's what I keep telling my wife :)

388. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 21:31:58 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <e5FLb.8096$na.6184@attbi_s04>
Source record: 102159

Re "delay"
Puting a 'reactance' in series was done with an antenna
in that capacitors were inserted along the radiator..
Beaszely determined by using hiscomputor program that it did nothing to
enhance the antenna despite claims to the contrary. So yes, I agree there is
a phase change but that is where I stop
Regards
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:3fff0093$1_2@127.0.0.1...
> Art Unwin KB9MZ wrote:
> > No I have not, but I have made one using hardline coax
> > for use on the antenna when the weather gets better.
> > we have ice up here !.
> > What is the basis of your suspicioun regarding 'Q' ?
>
> The flux from each loop flows across all the other
> loops. A web search for "pancake coil" turns up some
> interesting stuff including one company's claim that
> their coil-on-chip process turns out coils with double
> the 'Q' of pancake coils.
>
> Incidentally, a pancake coil doesn't solve the magnitude
> difference problem between current in and current out in
> a standing wave antenna. It may not radiate but it certainly
> has a delay through the coil which is what causes the current
> in to be different from the current out in standing wave
> antennas. This is explained on my web page at the bottom
> of the page.
> --
> 73, Cecil, http://www.qsl.net/w5dxp/current.htm
>
>
> --
> 73, Cecil, W5DXP
>
>

389. Re: Humvee antenna advice, please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 21:48:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FFF21AF.A8EBE741@cwis.net>
Source record: 102161

```
Try using what you already have. If it doesn't work,
try something else.
'Doc
```

390. Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 21:52:14 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <btn7qg059h@enews3.newsguy.com>
Source record: 102164

Here's one to explain:

There I was, driving along a two-lane asphalt highway trying to listen to an AM band station on 1230 kHz about 70 miles away (they only run 250 Watts) and getting considerable static. I noticed that the static diminished when I came to a stop and resumed when I began again. This was not alternator whine or spark plug noise--more like white noise. So, I thought, it must be static from wind in the antenna or maybe tire-on-roadway static.

Then I hit a section of road with a new 3-week-old layer of asphalt laid over the old asphalt. The noise disappeared! The noise returned when I drove off that new section of asphalt. Hmmmm. Did I just imagine it? So, I asked my XYL to pay attention to the station/static when the next opportunity arrived. Another section of fresh asphalt produced the same thing and she can verify it. It happened every time.

Now I ask you... why would I have statickey noise from driving on old asphalt? Or, maybe the question should be why would fresh asphalt be a noise quencher? Or something.

Thanks,
John
KD5YI

391. Re: Humvee antenna advice, please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 21:55:43 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <ku-dnSpK7YIav2KiRVn-uA@ctc.net>
Source record: 102162

>
>
> I want to put my new FT-850 in an old ex-USMC Slantback Humvee. The
> Humvee has two huge whips already mounted on it and a smaller VHF whip. I
> can change any of these or install others. They're not being used now. As
> you can imagine size isn't a factor. A big whip is fine. Can anyone advise
> me on the best HF whip and/or tuner to try?
>

Search for the screwdriver antenna if size does not mater.
Several companies are making that type.

392. Re: 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 21:59:52 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <btn88t061f@enews3.newsguy.com>
Source record: 102165

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:9rrtvv86iq17k9j74nmo8imgi7586rbogd@4ax.com...
> On Fri, 09 Jan 2004 12:46:24 GMT, "Marvin Rosen" <puns@verizon.net>
> wrote:
>
> > In reference to a previous post concerning
> >the construction of a center-fed 10 mtr vertical.
> >Is it posible to construct a 10, 6 & 2 mtr all-in
> >one center fed vertical using coax as the feed line?
> >
> Hi Marvin,
>
> Sure, merely more elaborate, and with elaboration comes the pain of
> implementation. By rough math, it could end up as 5 sections at 2M,
> and something under 2 sections for 6M - all in terms of quarterwave
> length elements.
>
> The trick is in that "partial" second element for 6M - not to speak of
> the interactions of tuning to three bands. Perhaps a 5/8ths for 6
> instead and a quarter and two halfwaves for 2M. This all depends on
> how gracefully the three bands can be made to resonate with the same
> fixed sections of wire. Then the question becomes, can you do the
> same trick for the lower half (tubing) the line is coming up through
> (if you choose that feedline path)? Would it be worth it (simply take
> what you got and juggle the tuning in the upper element)?
>
> For the side fed vertical dipole, rummage through the adds or online
> designs for a similar horizontal dipole. Turn 90°.
>
> 73's
> Richard Clark, KB7QHC

In the ARRL Handbook (and probably other ARRL publications), there is shown a multiple-band dipole. It consists of half-wave elements all attached to the same feed line but the dipole for each band is slightly separated from the others. It is essentially multiple dipoles in parallel.

So, couldn't this work, as you say, just turned vertically?

John
KD5YI

393. HF active antennas for cars - any new models?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 22:07:29 UTC
From: n1jpr@hotmail.com
Message-ID: <95a201e0.0401091407.5a1e6cc5@posting.google.com>
Source record: 102163

I've wanted to put an active shortwave antenna on my car for ages, but didn't want to start messing with building one.

Years back I got replies from Universal, Gilfer, EEB etc. saying that they never saw such a thing - but they might carry one if available. In particular, several resellers said they might have liked a well made, overload-resistant, mag-mount unit with a DC-RF splitter.

I might add I would have loved something that
- dampened both FM and Medium Wave (never seen one, not even plans for one, and both bands are a big problem in my area)
- worked well on 12 Vdc (not 24)
- cost less than $1000.

I even talked to an active car radio antenna maker who told me the design changes were trivial. Their best active car antennas had separate AM and FM channels, so they could have moved the AM passband up (they had standard cutoffs at 100 kHz and 5MHz, as to cover longwave too) and left the FM channel unbuilt. The problem was, they were an OEM, never did a production run of less than say 10k pieces and weren't enthused about selling into a specialty channel with ridiculous volumes and 100s of distributors in 3 continents!

As it happens, if you want something MIL-spec running on 24Vdc, have $1000 to burn and you don't mind having to drill holes in your car, and to cope with big signal above and below HF, you're well served.

I did some searching recently and still came up empry handed.

Is there something I have missed?

394. Re: 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 22:22:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n9auvv80pjru55odkb2no6bknekmdekf60@4ax.com>
Source record: 102166

On Fri, 9 Jan 2004 15:59:52 -0600, "John Smith" <jocjo_john@yooha.com>
wrote:

>In the ARRL Handbook (and probably other ARRL publications), there is shown
>a multiple-band dipole. It consists of half-wave elements all attached to
>the same feed line but the dipole for each band is slightly separated from
>the others. It is essentially multiple dipoles in parallel.
>
>So, couldn't this work, as you say, just turned vertically?
>
>John
>KD5YI

Hi John,

Kinda like a blown out, stripped umbrella? Sure.

73's
Richard Clark, KB7QHC

395. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 22:26:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9fauvv0rpi1g1oarcii36lb9g0lhdgpmlk@4ax.com>
Source record: 102167

On Fri, 9 Jan 2004 15:52:14 -0600, "John Smith" <jocjo_john@yooha.com>
wrote:

>
>Now I ask you... why would I have statickey noise from driving on old
>asphalt? Or, maybe the question should be why would fresh asphalt be a noise
>quencher? Or something.
>
>
>Thanks,
>John
>KD5YI

Hi John,

Do you really want to know why, or fix it? Try the old fashioned way,
drag a conductor (Gas trucks used chain, you could try that; or thick
1 or 2 inch braid).

73's
Richard Clark, KB7QHC

396. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 22:52:38 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <btnber$1ru$1@newshost.mot.com>
Source record: 102070

Lots of good ideas here, but I'll add the following since there has been an occasional :

A "dipole" is called a dipole because it has two "halves" or "poles" driven in the center. If we want to get a little more descriptive what we are talking about is a "center fed half wave antenna". This is the basic antenna. (the gran-daddy of all antennas, but I won't entertain arguments here about others including 1/4 wave ground planes) Just saying "dipole" could also (much less common) mean something other than the half wave length. When hams say "dipole" you can bet they're talkin' the half wave version.

Turn it any way you want, it's the same thing, just keep the ends as far from things as possible. Half wave antennas like this need no ground plane, also called radials, when so constructed.

If you "run the coax feed-line out through the center of one of the halves" you get the sleeve dipole. Since the coax runs right past the one end, there's a lot of capacitance and you have to adjust the length of that half a bit (shorter) for best SWR. In this case it may not be a true half wave long in total, but that doesn't matter. Anything close to a half wave, when it is getting power into it, will radiate like the full half wave. This can take the form of the coax braid pulled back or a tube or pipe.

Going just a bit further, if you imagine spreading the very ends of the braid out to form a big a cone, so it gets wider at the end away from the center of the half wave - and keep going until it is all 90 degrees from the coax (and the other half (1/4 wave)) then you have a 1/4 wave ground plane antenna.

Then there's the "J antenna" now-a-days always called the "J-Pole" (except by me)

P.S. The original "J-Pole" Was, and I believe still is, a commercial antenna by, I believe Cushman, consisting of either 2 or, I believe 4, J's spaced vertically on a supporting "POLE" for increased omni directional gain. Thus the name "J-POLE".

Getting descriptive again, this is an "end fed half wave antenna". This is the same radiating element, a half wave, just fed differently. To get the high impedance feed required at the end of a half-wave, what looks a lot like a shorted quarter wave stub matching section is used. This beast can also be placed vertically or horizontally.

And by the way, there is no reason that the "1/4 wave" matching section has to be in-line with the radiating half wave. It can be at 90 degrees if necessary. Just keep in mind that the feed-point end is still at a high

impedance and should be kept away from other things to minimize the capacitance and resulting de-tuning -- just like any end of any half wave antenna. (I won't entertain arguments of whether the matching section is really a true 1/4 wave or not)

Now the thing which triggered my comments, that of Richard , KB7QHC

>> You can follow my former instructions and simply make the upper
>> portion 5/8ths wavelength (if you have the room). If this makes it
>> too long (too close to ground) you will need radials.

I believe he was originally describing a sleeve dipole. The upper part could indeed be 5/8 wave, HOWEVER that radiator has significant reactance, capacitive. The 5/8 antenna is usually done as a ground plane and you will see a "loading coil" at the bottom. It turns out that the 5/8 radiator has a close to 50 ohm real radiation resistance, but with capacitance. In the series representation it is 5 - Jx. I don't know the value (I have wondered what it is for years-anybody model it & let me know??), but it can be tuned out with a series inductor and nothing more. A good design, however, will use a coil to ground with the coax feed tapped up the coil. This is to get the radiating element grounded, but the net match is the same.

If I'm not mistaken, the original "Extended Zepp" or was it just called the "Zep" or Zepplen",was a "di-pole" made up of two 5/8 elements on either side of center. Should have had a rather thin radiating pattern broadside and, yes some gain, like the 5/8 vertical does to obtain its "gain". Should have perhaps had two smaller lobes something like 50 degrees of the centerline (also like the 5/8)

Zat help any?

Whew!
Steve K;9;D:C:I

397. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 22:52:42 UTC
From: "H. Adam Stevens" <hstevens@totalaccessNOSPAM.net>
Message-ID: <vvucetq5midl8a@corp.supernews.com>
Source record: 102168

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:9fauvv0rpi1g1oarcii36lb9g0lhdgpmlk@4ax.com...
> On Fri, 9 Jan 2004 15:52:14 -0600, "John Smith" <jocjo_john@yooha.com>
> wrote:
>
> >
> > >Now I ask you... why would I have statickey noise from driving on old
> > >asphalt? Or, maybe the question should be why would fresh asphalt be a
noise
> > >quencher? Or something.
> > >
> > >Thanks,
> > >John
> > >KD5YI
>
> Hi John,
>
> Do you really want to know why, or fix it? Try the old fashioned way,
> drag a conductor (Gas trucks used chain, you could try that; or thick
> 1 or 2 inch braid).
>
> 73's
> Richard Clark, KB7QHC

And the "why" is related to Van de Graaf.
(Can't help myself.)
H.
NQ5H

398. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 23:06:00 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <btnc81$31r$1@newshost.mot.com>
Source record: 102072

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0401072037.6646a60b@posting.google.com...
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:<bti4sl$ev6$1@newshost.mot.com>...
> >
> > So if I get the set up: [snip]
>
> I'm not certain to what degree you mean by not significant, but the
> point i'm making is that the coax length will indeed affect the measured
> SWR if the transmission line is not a perfect 50 ohms (it never really
is).
> Slick

Sorry, I didn't mean to say it didn't. It indeed will since the 50 ohm load
will be transformed to differing impedance values with differing lengths of
(non-50 ohm) coax between the load and (50 ohm) SWR measuring device.

Going further, I just meant that if the coax is really 55 ohms there are no
practical issues. First, because the common (ham) SWR measuring device will
have errors that are getting close to what you are measuring and make
accurate determination of the true value difficult. Second, this low level
of SWR should not be of concern for old or new rigs ability to drive it, and
Finally any power / signal loss is also insignificant for communication.
Disagree?

Steve K;9;D:C:I

399. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 23:07:25 UTC
From: Phil <phil.bradway@verizon.net>
Message-ID: <NuGLb.36$Qq.29@nwrdny01.gnilink.net>
Source record: 102069

The problem may be related to a broken static wiper in one or both of the front hub caps (not wheel covers). It looks something like a spring and. in effect, "grounds" the wheel to the axle.. I had a similar problem on an old Chrysler.

Phil, KB2HQ

"John Smith" <jocjo_john@yooha.com> wrote in message news:btn7qg059h@enews3.newsguy.com...
> Here's one to explain:
>
> There I was, driving along a two-lane asphalt highway trying to listen to an
> AM band station on 1230 kHz about 70 miles away (they only run 250 Watts)
> and getting considerable static. I noticed that the static diminished when I
> came to a stop and resumed when I began again. This was not alternator whine
> or spark plug noise--more like white noise. So, I thought, it must be static
> from wind in the antenna or maybe tire-on-roadway static.
>
> Then I hit a section of road with a new 3-week-old layer of asphalt laid
> over the old asphalt. The noise disappeared! The noise returned when I drove
> off that new section of asphalt. Hmmmm. Did I just imagine it? So, I asked
> my XYL to pay attention to the station/static when the next opportunity
> arrived. Another section of fresh asphalt produced the same thing and she
> can verify it. It happened every time.
>
> Now I ask you... why would I have statickey noise from driving on old
> asphalt? Or, maybe the question should be why would fresh asphalt be a noise
> quencher? Or something.
>
>
> Thanks,
> John
> KD5YI
>
>
>

400. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 23:07:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3fff34cc_7@corp.newsgroups.com>
Source record: 102071

John Smith wrote:
> Now I ask you... why would I have statickey noise from driving on old
> asphalt? Or, maybe the question should be why would fresh asphalt be a noise
> quencher? Or something.

I previously noticed the same thing - the smoother the road, the lower
the RF noise level. shocks? springs? tires?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

401. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 23:08:52 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <btncd9$3ap$1@newshost.mot.com>
Source record: 102073

I was assuming between the load and meter

50 ohm LOAD====== (~~55 ohm line)======(50 ohm SWR measuring
device)==generator.

--
Steve N, K,9'd, c. i

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:btjishdco1@titan.btinternet.com...
> Where is the transmission line on which the SWR is measured by the meter?
>
>

402. OT: T2FD for TV reception?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 23:30:06 UTC
From: cbigam@somewhereelse.nucleus.com
Message-ID: <3fff3869@news.nucleus.com>
Source record: 102074

Hi all;

Forgive the intrusion from the VHF+ world, but I've searched the archives and can't find any answers to this.

I've been wondering about building an antenna for TV (and FM) reception, ideally fairly non-directional, i.e. 'set and forget.' The T2FD seems nearly ideal (relatively omnidirectional in the compass plane, small, good noise rejection, etc.) and yet I've seen nothing about using these for such a purpose.

I know only a small amount about antennas and RF electronics, so I though i'd ask here before building and mounting the thing. (which I figure I could stick on a 2x6, assuming a 50MHz bottom frequency)

Thanks!
Colin

403. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 23:37:54 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btne0d$avk1$1@news3.infoave.net>
Source record: 102075

Get some anti-static power for your tires.

"John Smith" <jocjo_john@yooha.com> wrote in message
news:btn7qg059h@enews3.newsguy.com...
> Here's one to explain:
>
> There I was, driving along a two-lane asphalt highway trying to listen to
an
> AM band station on 1230 kHz about 70 miles away (they only run 250 Watts)
> and getting considerable static. I noticed that the static diminished when
I
> came to a stop and resumed when I began again. This was not alternator
whine
> or spark plug noise--more like white noise. So, I thought, it must be
static
> from wind in the antenna or maybe tire-on-roadway static.
>
> Then I hit a section of road with a new 3-week-old layer of asphalt laid
> over the old asphalt. The noise disappeared! The noise returned when I
drove
> off that new section of asphalt. Hmmmm. Did I just imagine it? So, I asked
> my XYL to pay attention to the station/static when the next opportunity
> arrived. Another section of fresh asphalt produced the same thing and she
> can verify it. It happened every time.
>
> Now I ask you... why would I have statickey noise from driving on old
> asphalt? Or, maybe the question should be why would fresh asphalt be a
noise
> quencher? Or something.
>
>
> Thanks,
> John
> KD5YI
>
>
>

404. Re: 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 23:39:24 UTC
From: Roger Gt <Xenot@pacbell.net>
Message-ID: <MYGLb.9065$jX4.5458@newssvr25.news.prodigy.com>
Source record: 102076

"John Smith" <jocjo_john@yooha.com> wrote in message
news:btn88t061f@enews3.newsguy.com...
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:9rrtvv86iq17k9j74nmo8imgi7586rbogd@4ax.com...
> > On Fri, 09 Jan 2004 12:46:24 GMT, "Marvin Rosen" <puns@verizon.net>
> > wrote:
> >
> > > In reference to a previous post concerning
> > >the construction of a center-fed 10 mtr vertical.
> > >Is it posible to construct a 10, 6 & 2 mtr all-in
> > >one center fed vertical using coax as the feed line?
> > >
> > Hi Marvin,
> >
> > Sure, merely more elaborate, and with elaboration comes the pain of
> > implementation. By rough math, it could end up as 5 sections at 2M,
> > and something under 2 sections for 6M - all in terms of quarterwave
> > length elements.
> >
> > The trick is in that "partial" second element for 6M - not to speak of
> > the interactions of tuning to three bands. Perhaps a 5/8ths for 6
> > instead and a quarter and two halfwaves for 2M. This all depends on
> > how gracefully the three bands can be made to resonate with the same
> > fixed sections of wire. Then the question becomes, can you do the
> > same trick for the lower half (tubing) the line is coming up through
> > (if you choose that feedline path)? Would it be worth it (simply take
> > what you got and juggle the tuning in the upper element)?
> >
> > For the side fed vertical dipole, rummage through the adds or online
> > designs for a similar horizontal dipole. Turn 90°.
> >
> > 73's
> > Richard Clark, KB7QHC
>
> In the ARRL Handbook (and probably other ARRL publications), there is
shown
> a multiple-band dipole. It consists of half-wave elements all attached to
> the same feed line but the dipole for each band is slightly separated from
> the others. It is essentially multiple dipoles in parallel.
>
> So, couldn't this work, as you say, just turned vertically?
>

> John
> KD5YI

My experience is that several dipoles may share the same feed line, but to get the least interaction they should fan out at about 15 degrees, but only for a fraction of the length of the dipole. I used a ring to spread the elements out to about 6 inched from the centerline, and had five separate dipoles on a single feed. The first ring was 20 inches from the feed, and there were additional rings about every five feet.

When you trim the elements you will notice slight effects of increased capacity, but not a major change.

405. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-09 23:40:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btne52$hp4$1@titan.btinternet.com>
Source record: 102077

The current out of one end of a coil of negligible length and diameter in terms of a wavelength, for practical purposes is the same as the current going into it - both magnitude and phase.

HOW ELSE CAN A TWO-TERMINAL DEVICE POSSIBLY BEHAVE?

And if by some impossibly remote chance you should discover something different, so infringing all the known Laws of Physics and several more, of what possible use could you make of it?

If you please, let's have the equations or forever hold your peace.

Of course, Cec, there never has been any chance of reforming your ideas on the subject. But having just had a good swig of Vin de Pays D'OC, a fortifying product of our sensible French friends 21 miles just across the Channel, I mention it here only to protect, once and for all, professional and amateur newcomers to the subject of coil-loaded anrennas from being led unwittingly into the Mire of Despond and the Depths of Ignorance.

Cec, old friend, please forgive my slight tendency to exaggerate. ;o)

For newcomers wishing to appreciate the behaviour of coil-loaded vertical antennas in a quantitative manner try down-loading in a few seconds program LOADCOIL If you can't understand it no harm will be done.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

--
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....
"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:3fff0093$1_2@127.0.0.1...
> Art Unwin KB9MZ wrote:
> > No I have not, but I have made one using hardline coax
> > for use on the antenna when the weather gets better.
> > we have ice up here !.
> > What is the basis of your suspicioun regarding 'Q' ?
>
> The flux from each loop flows across all the other

> loops. A web search for "pancake coil" turns up some
> interesting stuff including one company's claim that
> their coil-on-chip process turns out coils with double
> the 'Q' of pancake coils.
>
> Incidentally, a pancake coil doesn't solve the magnitude
> difference problem between current in and current out in
> a standing wave antenna. It may not radiate but it certainly
> has a delay through the coil which is what causes the current
> in to be different from the current out in standing wave
> antennas. This is explained on my web page at the bottom
> of the page.
> --
> 73, Cecil, http://www.qsl.net/w5dxp/current.htm
>
>
> --
> 73, Cecil, W5DXP
>
>

406. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 00:04:52 UTC
From: "Ed G." <Spectrumhog@_REMOVE_StarBand.net>
Message-ID: <Xns946BA3A8B1228Frog207Junocom@148.78.248.75>
Source record: 102078
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

>
> ***Thank you Ron. Since my initial message and responses here on the
> newsgroup, coupled with "homework" we find that Celwave no longer
> makes the 4 el vert dipole for the 2 meter spectrum. Nor do they make
> replacement harnesses. Suspect drop in sales is the primary reason,
> but not certain.

That's disgusting! I didn't believe you so went looking myself, and found you were right. Phelps Dodge used to cater nicely to hams. When they became Celwave, they still gave us a discount. Now that they've gone international as RFS Celwave, they don't seem to give a hoot. Oh well, DB Products is just as good.

>
> Looking seriously at Decibel's compatible antenna. We are however,
> going to open up the Celwave, remove and inspect the harness and
> if possible determine what went wrong. Possibility that there could
> be damage from lightning which would be covered by our insurance
> policy.

We had a nice Celwave PD 340-3 that never did work right. Antenna swr measured OK, but when we swapped the antenna out with just about any other antenna, it appeared that the Celwave was about unity gain. Could not measure any opens or shorts in the harness, but obviously something was wrong. Our club let the antenna sit around and warranty expire so we never did find the probem. A cheapie 3dB omni by Antenna Specialists seemed to do well enough for us. ... sigh ....

Ed WB6SAT

407. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 00:22:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uvguvv8kq22tlr09dbftmf47vqk4m9704o@4ax.com>
Source record: 102079

On Fri, 9 Jan 2004 16:52:38 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:\
> I believe he was originally describing a sleeve dipole. The upper part
>could indeed be 5/8 wave, HOWEVER that radiator has significant reactance,
>capacitive.

Hi Steve,

I have built such antennas for 10M and the reactance was quite
insignificant when swamped by the proximity of ground (being a foot
below the lower element which was actually a tower section insulated
above ground). The upper element was a 21 foot section of 1inch
tubing.

73's
Richard Clark, KB7QHC

408. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 00:24:10 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FFF462A.10D8E19E@cwis.net>
Source record: 102080

Which is exactly the wrong thing to do. When was the last
time
you saw a 'static' strap or chain being drug by a gas truck? 20
years
ago, 30 year? If you see another one, don't tell the DOT! The
idiot
driver will loose his license...
'Doc

409. Re: OT: T2FD for TV reception?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 00:27:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <aihuvvc5shsguisf3n3n0l10utas6rcdab@4ax.com>
Source record: 102081

On Fri, 09 Jan 2004 23:30:06 GMT, cbigam@somewhereelse.nucleus.com
wrote:

>I've been wondering about building an antenna for TV (and FM)
>reception, ideally fairly non-directional, i.e. 'set and forget.'
>The T2FD seems nearly ideal (relatively omnidirectional in the compass
>plane, small, good noise rejection, etc.) and yet I've seen nothing
>about using these for such a purpose.
>
Hi OM,

I can think of 3 reasons: loss to the resistor, cross polarization,
ghosts.

73's
Richard Clark, KB7QHC

410. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 01:04:42 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <btnj3f02fo3@enews4.newsguy.com>
Source record: 102083

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
news:btne0d$avk1$1@news3.infoave.net...
> Get some anti-static power for your tires.
>

Wellllll... Okay, but do they make it in grades for the age of the asphalt?

411. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 01:09:13 UTC
From: Robert Kubichek <bobn9lvu@lakefield.net>
Message-ID: <btnjbd$9cj2k$1@ID-179885.news.uni-berlin.de>
Source record: 102082
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Ed G. wrote:
>>***Thank you Ron. Since my initial message and responses here on the
>>newsgroup, coupled with "homework" we find that Celwave no longer
>>makes the 4 el vert dipole for the 2 meter spectrum. Nor do they make
>>replacement harnesses. Suspect drop in sales is the primary reason,
>>but not certain.
>
>
> That's disgusting! I didn't believe you so went looking myself, and
> found you were right. Phelps Dodge used to cater nicely to hams. When
> they became Celwave, they still gave us a discount. Now that they've gone
> international as RFS Celwave, they don't seem to give a hoot. Oh well,
> DB Products is just as good.
>
>
>>Looking seriously at Decibel's compatible antenna. We are however,
>>going to open up the Celwave, remove and inspect the harness and
>>if possible determine what went wrong. Possibility that there could
>>be damage from lightning which would be covered by our insurance
>>policy.
>
>
> We had a nice Celwave PD 340-3 that never did work right. Antenna swr
> measured OK, but when we swapped the antenna out with just about any other
> antenna, it appeared that the Celwave was about unity gain. Could not
> measure any opens or shorts in the harness, but obviously something was
> wrong. Our club let the antenna sit around and warranty expire so we
> never did find the probem. A cheapie 3dB omni by Antenna Specialists
> seemed to do well enough for us. ... sigh ....
>
>
>
> Ed WB6SAT
I used to have a Celwave, and I liked how you could set the pattern
to suit your location..... I have also made super J-poles out of
1" copper pipe that worked just as good, and were MUCH cheaper, and
lasted a lot longer....

Bob N9LVU

412. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 01:10:45 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <btnjep02gmn@enews4.newsguy.com>
Source record: 102084

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:3fff34cc_7@corp.newsgroups.com...
> John Smith wrote:
> > Now I ask you... why would I have statickey noise from driving on old
> > asphalt? Or, maybe the question should be why would fresh asphalt be a
noise
> > quencher? Or something.
>
> I previously noticed the same thing - the smoother the road, the lower
> the RF noise level. shocks? springs? tires?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Ain't that a hoot? I could understand the static level changing from asphalt to concrete (maybe) but from old to new asphalt? By the way, the old and new roads were about the same smoothness if the potholes were missed.

Maybe the dimples of the new asphalt being taller than the worn asphalt meant less surface contact. Is it a full moon yet?

413. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 01:35:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btnkt4pvs1@hercules.btinternet.com>
Source record: 102085

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:3ffc3e2b$1_7@corp.newsgroups.com...
> Reg Edwards wrote:
> > Cec and others, what's the point in dragging in opinions of people
nobody
> > has ever head of and whose publications are highly unlikely ever to
become
> > available before all interest in the subject has faded from everybody's
> > imagination.
>
> Reg, everyone except you has heard of John D. Kraus, W8JK. My personal
> library would be extremely incomplete without his book(s).
>
> > If anything needs to be said, would it not be better to say it just on
one's
> > own authority and be done with it. Otherwise it falls into the category
of
> > "name dropping".
>
> In physics and engineering circles, it's called providing a reference.
> Without a reference, it is just a personal opinion, unless one can
> prove otherwise. With a proper reference, it is generally accepted as
> fact, unless one can prove otherwise. Check out all the references
> at the end of any technical article.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
==========

Cec,

You know very well I have heard of Kraus. But only by reputation on these walls. He must be a professional who by chance happened or happens to have a call sign as so many American engineers do. As I am myself it so happens. But that's about all of it.

The reputations of American amateurs and professionals appear to have become mixed. In my opinion to the benefit of neither.

References are of no use unless they are accessible. It is of no use recomending references to people who are without ready access to them. People with ready access wouldn't be asking questions in the first place.

I have only two reference books of consequence. One author's name is Terman. Believe me I have come to the conlusion that 99 percent people who worship and specify Terman have never actually used him except merely for

quotations which they don't understand anyway. He need a lot of checking before placing one's life in his hands. I say this as one who HAS used him on occasions over the years but only as a very comprehensive and valuable source of memory refreshment. But I have NEVER dropped his name to strengthen my own statements. And nobody else's name either to my recollection.

Whenever I see references to authors (most of which I've never heard of except on these walls) I am inclined to the opinion the person making the reference lacks self confidence in what he's waffling about.

But of course, when a reference is made for the purposes of further reading should the source be readily available, then that's fine. But in such cases I know full well the chances of getting my hands on a particular reference within 6 months are remote. And should I ever get it it is unlikely to tell me what I want to know anyway. Been there - done that too many times in the past to expect otherwise. So as far as I'm concerned the matter is best dropped. To minimise the losses just change the subject! To proceed is never worth the trouble.

My other reference is Everitt. Far more reliable. I've never found a single error in 55 years. I use him only every few years because I know him mostly by heart anyway. You may think my knowledge base is exeedingly small. It is!

Perhaps I could have explained the foregoing in better terms. But most of you understand exactly what I'm saying. English and American English become closer every day. Our politicians tell exactly the same lies.

Reg, G4FGQ

414. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 01:45:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btnlff$p5a$1@sparta.btinternet.com>
Source record: 102086

Don't any of you SWR experts have anything to say?

==========

"Steve Nosko" wrote -
> I was assuming between the load and meter
>
> "Reg Edwards" wrote -
> > Where is the transmission line on which the SWR is measured by the meter?

415. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 02:01:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i2nuvvks2se8htcp9l2vg1cdo49gjcv8f9@4ax.com>
Source record: 102087

On Sat, 10 Jan 2004 01:35:32 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>But I have NEVER dropped his name to
>strengthen my own statements. And nobody else's name either to my
>recollection.

Short recollection. That is why folks supply citations. [merely
stating the bleeding obvious]

73's
Richard Clark, KB7QHC

416. Re: HF active antennas for cars - any new models?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 02:08:32 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3FFF5EA0.87A5EC4E@cwis.net>
Source record: 102088

Ummm... The Michael Jackson 'aww-topsy'?
'Doc

417. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 02:32:40 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <cvJLb.10175$8H.27238@attbi_s03>
Source record: 102089

I believe you have the correct answer Phil.. I would guess that during a
wheel bearing grease job the mechanic forgot to reassemble it.
I have never had this problem but I must say my vehicle
is not made with an external antenna
Regards
Art

"Phil" <phil.bradway@verizon.net> wrote in message
news:NuGLb.36$Qq.29@nwrdny01.gnilink.net...
> The problem may be related to a broken static wiper in one or both of the
> front hub caps (not wheel covers). It looks something like a spring and.
in
> effect, "grounds" the wheel to the axle.. I had a similar problem on an
old
> Chrysler.
>
> Phil, KB2HQ
>
> "John Smith" <jocjo_john@yooha.com> wrote in message
> news:btn7qg059h@enews3.newsguy.com...
> > Here's one to explain:
> >
> > There I was, driving along a two-lane asphalt highway trying to listen
to
> an
> > AM band station on 1230 kHz about 70 miles away (they only run 250
Watts)
> > and getting considerable static. I noticed that the static diminished
when
> I
> > came to a stop and resumed when I began again. This was not alternator
> whine
> > or spark plug noise--more like white noise. So, I thought, it must be
> static
> > from wind in the antenna or maybe tire-on-roadway static.
> >
> > Then I hit a section of road with a new 3-week-old layer of asphalt laid
> > over the old asphalt. The noise disappeared! The noise returned when I
> drove
> > off that new section of asphalt. Hmmmm. Did I just imagine it? So, I
asked
> > my XYL to pay attention to the station/static when the next opportunity
> > arrived. Another section of fresh asphalt produced the same thing and
she

> > can verify it. It happened every time.
> >
> > Now I ask you... why would I have statickey noise from driving on old
> > asphalt? Or, maybe the question should be why would fresh asphalt be a
> noise
> > quencher? Or something.
> >
> >
> > Thanks,
> > John
> > KD5YI
> >
> >
> >
>
>

418. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 03:04:19 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <btnq3n0t35@enews2.newsguy.com>
Source record: 102091

```
" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:cvJLb.10175$8H.27238@attbi_s03...
> I believe you have the correct answer Phil.. I would guess that during a
> wheel bearing grease job the mechanic forgot to reassemble it.
> I have never had this problem but I must say my vehicle
> is not made with an external antenna
> Regards
> Art
>
> "Phil" <phil.bradway@verizon.net> wrote in message
> news:NuGLb.36$Qq.29@nwrdny01.gnilink.net...
> > The problem may be related to a broken static wiper in one or both of
the
> > front hub caps (not wheel covers). It looks something like a spring and.
> in
> > effect, "grounds" the wheel to the axle.. I had a similar problem on an
> old
> > Chrysler.
> >
> > Phil, KB2HQ
> >

Why would the static wiper suddenly start working when I got on newer
asphalt and quit working again when I went back on the old asphalt?

The external antenna is factory-supplied by Honda.
```

419. Re: 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 03:16:26 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <btnqqd0uq5@enews2.newsguy.com>
Source record: 102093

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:n9auvv80pjru55odkb2no6bknekmdekf60@4ax.com...
> On Fri, 9 Jan 2004 15:59:52 -0600, "John Smith" <jocjo_john@yooha.com>
> wrote:
>
> >In the ARRL Handbook (and probably other ARRL publications), there is
shown
> >a multiple-band dipole. It consists of half-wave elements all attached to
> >the same feed line but the dipole for each band is slightly separated
from
> >the others. It is essentially multiple dipoles in parallel.
> >
> >So, couldn't this work, as you say, just turned vertically?
> >
> >John
> >KD5YI
>
> Hi John,
>
> Kinda like a blown out, stripped umbrella? Sure.
>
> 73's
> Richard Clark, KB7QHC

Page 20.6 of the 2002 ARRL Handbook, figure 20.12 shows one. They don't say to spread them out like that, but they talk about pruning due to interaction and not to have both 80 and 30 meters because of the odd harmonic relationship. That sort of thing.

I don't know. I'm not one of the smart ones here, I just find stuff in the books.

Anyway, *they* say it works and they don't say it has to be horizontal. I think ARRL has the attitude of "Try it--you'll probably like it."

John
KD5YI

420. Re: HF active antennas for cars - any new models?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 03:17:22 UTC
From: Howard <#mensch90249@yahoo.com>
Message-ID: <hfruvvg4a1tgr5btcg6rij5ggss68r0bv9@4ax.com>
Source record: 102090

On 9 Jan 2004 14:07:29 -0800, n1jpr@hotmail.com (SpamLover) wrote:

>I've wanted to put an active shortwave antenna on my car for ages, but
>didn't want to start messing with building one.
>
>Years back I got replies from Universal, Gilfer, EEB etc. saying that
>they never saw such a thing - but they might carry one if available.
>In particular, several resellers said they might have liked a well
>made, overload-resistant, mag-mount unit with a DC-RF splitter.
>
>I might add I would have loved something that
>- dampened both FM and Medium Wave (never seen one, not even plans for
>one, and both bands are a big problem in my area)
>- worked well on 12 Vdc (not 24)
>- cost less than $1000.
>
>I even talked to an active car radio antenna maker who told me the
>design changes were trivial. Their best active car antennas had
>separate AM and FM channels, so they could have moved the AM passband
>up (they had standard cutoffs at 100 kHz and 5MHz, as to cover
>longwave too) and left the FM channel unbuilt. The problem was, they
>were an OEM, never did a production run of less than say 10k pieces
>and weren't enthused about selling into a specialty channel with
>ridiculous volumes and 100s of distributors in 3 continents!
>
>As it happens, if you want something MIL-spec running on 24Vdc, have
>$1000 to burn and you don't mind having to drill holes in your car,
>and to cope with big signal above and below HF, you're well served.
>
>I did some searching recently and still came up empry handed.
>
>Is there something I have missed?
Sort of missed, though not for HF the Hyundai Santa Fe (small SUV type
vehicle) has no external antenna's. A friend has one and was told by
the dealer that it uses internal active antenna's - he confirmed with
the owner's manual. There are separate antenna's for MW and FM which
are located in two different locations. He hasn't let me strip down
the interior to check them out though 8-}

421. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 03:32:26 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0401091932.4e2c27fc@posting.google.com>
Source record: 102092

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<3fff0093$1_2@127.0.0.1>...
> Art Unwin KB9MZ wrote:
> > No I have not, but I have made one using hardline coax
> > for use on the antenna when the weather gets better.
> > we have ice up here !.
> > What is the basis of your suspicioun regarding 'Q' ?
>
> The flux from each loop flows across all the other
> loops. A web search for "pancake coil" turns up some
> interesting stuff including one company's claim that
> their coil-on-chip process turns out coils with double
> the 'Q' of pancake coils.

Cecil
I suspect that the 'Q' of a pancake coil would be higher than
the single layer solenoid coil.
!. Modeling shows that for a given length the inductance supplied
is about equal with the edge going to the pancake coil.
2 I believe it is well established that the'Q' of the standard coil
increases as the former radius increases.
Based on the above one could roughly equate the relative inductances
as somewhat proportional with the mean diameter of coils.
3 Since the first pancake coil would have a diaameter more than zero
I think one could say that the pancake coil would tend to have a
higher "Q'
and not the lower "Q" that you suspect.
If a whip coil was made pancake style would this not present less wind
resistance when going mobile ?
Cheers
Art

>
> Incidentally, a pancake coil doesn't solve the magnitude
> difference problem between current in and current out in
> a standing wave antenna. It may not radiate but it certainly
> has a delay through the coil which is what causes the current
> in to be different from the current out in standing wave
> antennas. This is explained on my web page at the bottom
> of the page.
> --
> 73, Cecil, http://www.qsl.net/w5dxp/current.htm

422. Re: HF active antennas for cars - any new models?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 04:16:08 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <3fff8017_1@news1.prserv.net>
Source record: 102094

Radiomaster A-50?
McKay Dymek DA-100E?
MFJ-1024?
Sony AN-1?

--
Crazy George
Remove N O and S P A M imbedded in return address
"Howard" <#mensch90249@yahoo.com> wrote in message
news:hfruvvg4a1tgr5btcg6rij5ggss68r0bv9@4ax.com...
>
> On 9 Jan 2004 14:07:29 -0800, n1jpr@hotmail.com (SpamLover) wrote:
>
> >I've wanted to put an active shortwave antenna on my car for ages, but
> >didn't want to start messing with building one.
> >
> >Years back I got replies from Universal, Gilfer, EEB etc. saying that
> >they never saw such a thing - but they might carry one if available.
> >In particular, several resellers said they might have liked a well
> >made, overload-resistant, mag-mount unit with a DC-RF splitter.
> >
> >I might add I would have loved something that
> >- dampened both FM and Medium Wave (never seen one, not even plans for
> >one, and both bands are a big problem in my area)
> >- worked well on 12 Vdc (not 24)
> >- cost less than $1000.
> >
> >I even talked to an active car radio antenna maker who told me the
> >design changes were trivial. Their best active car antennas had
> >separate AM and FM channels, so they could have moved the AM passband
> >up (they had standard cutoffs at 100 kHz and 5MHz, as to cover
> >longwave too) and left the FM channel unbuilt. The problem was, they
> >were an OEM, never did a production run of less than say 10k pieces
> >and weren't enthused about selling into a specialty channel with
> >ridiculous volumes and 100s of distributors in 3 continents!
> >
> >As it happens, if you want something MIL-spec running on 24Vdc, have
> >$1000 to burn and you don't mind having to drill holes in your car,
> >and to cope with big signal above and below HF, you're well served.
> >
> >I did some searching recently and still came up empry handed.
> >
> >Is there something I have missed?
> Sort of missed, though not for HF the Hyundai Santa Fe (small SUV type

> vehicle) has no external antenna's. A friend has one and was told by
> the dealer that it uses internal active antenna's - he confirmed with
> the owner's manual. There are separate antenna's for MW and FM which
> are located in two different locations. He hasn't let me strip down
> the interior to check them out though 8-}

423. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 04:20:20 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <3fff8019_1@news1.prserv.net>
Source record: 102095

OK, some of you guys are old enough to remember the answer to this question.
Used to be a real problem. If no one guesses it, I'll post the science
tomorrow. Geeeeez!!!

--
Crazy George
Remove N O and S P A M imbedded in return address
"John Smith" <jocjo_john@yooha.com> wrote in message
news:btn7qg059h@enews3.newsguy.com...
> Here's one to explain:
>
> There I was, driving along a two-lane asphalt highway trying to listen to
an
> AM band station on 1230 kHz about 70 miles away (they only run 250 Watts)
> and getting considerable static. I noticed that the static diminished when
I
> came to a stop and resumed when I began again. This was not alternator
whine
> or spark plug noise--more like white noise. So, I thought, it must be
static
> from wind in the antenna or maybe tire-on-roadway static.
>
> Then I hit a section of road with a new 3-week-old layer of asphalt laid
> over the old asphalt. The noise disappeared! The noise returned when I
drove
> off that new section of asphalt. Hmmmm. Did I just imagine it? So, I asked
> my XYL to pay attention to the station/static when the next opportunity
> arrived. Another section of fresh asphalt produced the same thing and she
> can verify it. It happened every time.
>
> Now I ask you... why would I have statickey noise from driving on old
> asphalt? Or, maybe the question should be why would fresh asphalt be a
noise
> quencher? Or something.
>
>
> Thanks,
> John
> KD5YI
>
>
>

424. cheap power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 04:42:37 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btnvrj$b7le$1@news3.infoave.net>
Source record: 102096

I found a source of really cheap power supplies to run my DC powered electric chargers. http://www.ramboy.com sells a 12 volt @ 13 amp power supply for $19.95 including shipment.

After I got it, I cranked up the voltage to 13.2 volts and it still supplied almost 13 amps. Small package switching regulator type.

If your looking for a means to power a 12 volt DC charger this is a cheap way to go. By the way I am in no way connected with them, simply a satisfied user that is ordering 2 more.

--
<--
Editor - Gilbert News On-Line
Http://gilbertnews.net

425. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 04:44:27 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btnvv1$b80u$1@news3.infoave.net>
Source record: 102097

Sorry, being a 7th day Buddhist it is against my religion to discuss SWR indicating devices.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:btnlff$p5a$1@sparta.btinternet.com...
> Don't any of you SWR experts have anything to say?
>
> ==========
>
> "Steve Nosko" wrote -
> > I was assuming between the load and meter
> >
> > "Reg Edwards" wrote -
> > > Where is the transmission line on which the SWR is measured by the
> meter?
>
>

426. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 04:46:41 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bto037$b7tl$1@news3.infoave.net>
Source record: 102098

It goes inside the tire to prevent static build up.

"John Smith" <jocjo_john@yooha.com> wrote in message
news:btnj3f02fo3@enews4.newsguy.com...
>
> "w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
> news:btne0d$avk1$1@news3.infoave.net...
> > Get some anti-static power for your tires.
> >
>
>
> Wellllll... Okay, but do they make it in grades for the age of the asphalt?
>
>

427. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 04:50:42 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bto0an$ah2h$1@news3.infoave.net>
Source record: 102099

I suspect you are referring to the substitution of silica for carbon black
in the tire to make the EPA happy.

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
news:3fff8019_1@news1.prserv.net...
> OK, some of you guys are old enough to remember the answer to this
question.
> Used to be a real problem. If no one guesses it, I'll post the science
> tomorrow. Geeeeez!!!
>
> --
> Crazy George
> Remove N O and S P A M imbedded in return address
> "John Smith" <jocjo_john@yooha.com> wrote in message
> news:btn7qg059h@enews3.newsguy.com...
> > Here's one to explain:
> >
> > There I was, driving along a two-lane asphalt highway trying to listen
to
> an
> > AM band station on 1230 kHz about 70 miles away (they only run 250
Watts)
> > and getting considerable static. I noticed that the static diminished
when
> I
> > came to a stop and resumed when I began again. This was not alternator
> whine
> > or spark plug noise--more like white noise. So, I thought, it must be
> static
> > from wind in the antenna or maybe tire-on-roadway static.
> >
> > Then I hit a section of road with a new 3-week-old layer of asphalt laid
> > over the old asphalt. The noise disappeared! The noise returned when I
> drove
> > off that new section of asphalt. Hmmmm. Did I just imagine it? So, I
asked
> > my XYL to pay attention to the station/static when the next opportunity
> > arrived. Another section of fresh asphalt produced the same thing and
she
> > can verify it. It happened every time.
> >
> > Now I ask you... why would I have statickey noise from driving on old
> > asphalt? Or, maybe the question should be why would fresh asphalt be a
> noise

> > quencher? Or something.
> >
> >
> > Thanks,
> > John
> > KD5YI
> >
> >
> >
>
>

428. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 05:12:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3fff8a4b$1_8@corp.newsgroups.com>
Source record: 102100

Reg Edwards wrote:
> The current out of one end of a coil of negligible length and diameter in
> terms of a wavelength, for practical purposes is the same as the current
> going into it - both magnitude and phase.
>
> HOW ELSE CAN A TWO-TERMINAL DEVICE POSSIBLY BEHAVE?

Real world loading coils are not of negligible length and diameter.
Kraus talks about phase-reversing coils. That means that current
is flowing into both ends of the coil at the same time. Please
take a look at the bottom of the web page below for an explanation.
--
73, Cecil http://www.qsl.net/w5dxp/current.htm

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

429. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 05:18:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <3fff8bd3$1_8@corp.newsgroups.com>
Source record: 102101

Reg Edwards wrote:
> References are of no use unless they are accessible.

Reg, if I need to look at a reference, I just drive 40 miles
over to the Texas A&M library. If I really like it, I buy one.
I bought 4 reference books last year.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

430. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 05:41:52 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <AgMLb.10339$Rc4.43914@attbi_s54>
Source record: 102102

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0401091932.4e2c27fc@posting.google.com...
> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<3fff0093$1_2@127.0.0.1>...
> > Art Unwin KB9MZ wrote:
> > > No I have not, but I have made one using hardline coax
> > > for use on the antenna when the weather gets better.
> > > we have ice up here !.
> > > What is the basis of your suspicioun regarding 'Q' ?
> >
> > The flux from each loop flows across all the other
> > loops. A web search for "pancake coil" turns up some
> > interesting stuff including one company's claim that
> > their coil-on-chip process turns out coils with double
> > the 'Q' of pancake coils.
>
> Cecil
> I suspect that the 'Q' of a pancake coil would be higher than
> the single layer solenoid coil.
> !. Modeling shows that for a given length the inductance supplied
> is about equal with the edge going to the pancake coil.
> 2 I believe it is well established that the'Q' of the standard coil
> increases as the former radius increases.
> Based on the above one could roughly equate the relative inductances
> as somewhat proportional with the mean diameter of coils.
> 3 Since the first pancake coil would have a diaameter more than zero
> I think one could say that the pancake coil would tend to have a
> higher "Q'
> and not the lower "Q" that you suspect.

Cecil,
Correction needed here! The mean diameter of a pancake coil depends mainly
on the radius of the first coil form thus the "Q" can easily made of either
a higher "Q" or a lower "Q" over a standard solenoid style coil.depending on
the relative diameters'
Cheers
Art

> If a whip coil was made pancake style would this not present less wind
> resistance when going mobile ?
> Cheers
> Art
>
>
>

>
> >
> > Incidentally, a pancake coil doesn't solve the magnitude
> > difference problem between current in and current out in
> > a standing wave antenna. It may not radiate but it certainly
> > has a delay through the coil which is what causes the current
> > in to be different from the current out in standing wave
> > antennas. This is explained on my web page at the bottom
> > of the page.
> > --
> > 73, Cecil, http://www.qsl.net/w5dxp/current.htm

431. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 05:45:12 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <1jMLb.19259$7D3.15256@fed1read02>
Source record: 102103

"Bill Turner" <noway@nohow.com> wrote in message
news:juuuvvg4nn810fnr2k4g5m7f0gtrskclua@4ax.com...
> On Fri, 9 Jan 2004 19:10:45 -0600, "John Smith" <jocjo_john@yooha.com>
> wrote:
>
> >Ain't that a hoot? I could understand the static level changing from
asphalt
> >to concrete (maybe) but from old to new asphalt? By the way, the old and
new
> >roads were about the same smoothness if the potholes were missed.
>
> ____
>
> I had the same problem on a '97 Escort wagon. If you want to REALLY
> experience wheel static, get one of those, because the wheel is not
> grounded to the frame at all! Check it with an ohm meter and see.
> Apparently they use plastic bearings; this is not a case of the mechanic
> left out the grounding springs - there aren't any!
>
> And the amount of static did indeed vary with the road surface. My
> theory is that some roads are more conductive than others and will drain
> away the static slightly better, although not completely in any case.
>
> Just theory, can't prove it, but I saw it happen many, many times.
>
> --
> Bill, W6WRT

OR, the differing road surface really causes varying amounts of static, as the OP observed. The act of a tire rolling on an asphalt surface involves a certain amount of deformation or "squirm" of the tire body. This scrubbing action will allow triboelectric charging; the same effect you get by rubbing the faceplate of a plastic meter or shuffling your shoes across a carpet. Different mating surfaces yield differing amounts of triboelectric generation.

I have experienced static conditions, during a Wyoming snow-storm, so bad that it blanked out broadcast AM radio in my car. So just driving through the air can cause vehicle charging. Even if you discount the road surface triboelectric effect, it's also quite possible that different road surfaces might have widely varying conductivity (perhaps due to contaminates and moisture trapped in the road surface texture).

--
Ed

WB6WSN

432. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 10:56:45 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401092233.1c92ce58@posting.google.com>
Source record: 102104

"John Smith" <jocjo_john@yooha.com> wrote in message
news:<btnj3f02fo3@enews4.newsguy.com>...
> "w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
> news:btne0d$avk1$1@news3.infoave.net...
> > Get some anti-static power for your tires.
> >
>
>
> Wellllll... Okay, but do they make it in grades for the age of the asphalt?

Doubt it. I'm not sure what causes the change, but it's probably
something to do with the roughness of the surface. Either that , or
maybe a change in the rebar, grounding, etc under the new stretch. Cuz
of the rebar, most highways are actually pretty decent psuedo ground
planes for mobiles. Sometimes you will notice a drop when you leave
the road. The noise is real. I've noticed it for years, but never did
anything about it. It was the only source of noise I had on my car,
and probably the same in the old truck I've been driving lately. The
usual fix is a combination of the wheel bearing, cap, spring trick,
and the anti-static powder.. Which BTW, I don't even know where to
get...Myself, I just made use of the noise blanker at warp speeds...:/
MK

433. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 11:08:13 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401082021.61a8f43b@posting.google.com>
Source record: 102105

desmoface@aol.com (Desmoface) wrote in message
news:<20040108135102.07996.00002426@mb-m16.aol.com>...
> Hey kids..I know gap kind of does this..but anyone think a verticle dipole
> would work...basically a vertical fed in the center...Im wanting a good 10
> meter antenna for local stuff and was thinking about a conventional
> vertical..than I thought maybe I could do without the radial system and ground
> loss issue but just putting up a vertical dipole for 10...any thoughts??
>
> Steve
> kb8viv

You could base feed it with a gamma loop type matching device. For
10m, the single turn loop would be appx 9-11 inches dia. The cap can
be an appx 16 inch length of coax. You need appx 50 pf or so to match
for 10m. I've built many of these for the higher HF bands. They work
well, and are easier to tune than it sounds. The cushcraft AR-10 is a
commercial version of this antenna, using that type matching device.
You can get a PDF manual on their website. Heck, you might just want
to buy a AR-10 and be done with it...:) They are fairly inexpensive.
They are also easy to butcher up and make other antennas from. I've
modified many of those for other uses. MK

434. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 11:11:58 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401092232.764b530a@posting.google.com>
Source record: 102106

"John Smith" <jocjo_john@yooha.com> wrote in message
news:<btnj3f02fo3@enews4.newsguy.com>...
> "w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
> news:btne0d$avk1$1@news3.infoave.net...
> > Get some anti-static power for your tires.
> >
>
>
> Wellllll... Okay, but do they make it in grades for the age of the asphalt?

Doubt it. I'm not sure what causes the change, but it's probably
something to do with the roughness of the surface. Either that , or
maybe a change in the rebar, grounding, etc under the new stretch. Cuz
of the rebar, most highways are actually pretty decent psuedo ground
planes for mobiles. Sometimes you will notice a drop when you leave
the road. The noise is real. I've noticed it for years, but never did
anything about it. It was the only source of noise I had on my car,
and probably the same in the old truck I've been driving lately. The
usual fix is a combination of the wheel bearing, cap, spring trick,
and the anti-static powder.. Which BTW, I don't even know where to
get...Myself, I just made use of the noise blanker at warp speeds...:/
MK

435. Re: Coax length - important ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 11:48:52 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <EERLb.12350$Rc4.46697@attbi_s54>
Source record: 102107

If I really wanted to measure VSWR I'd use a slotted line with a probe and adjustable geometry for the line's Zo settings. Hmmm ... how long is 3/8 wavelengths on 160 meters?? Only 195 feet! Hon, I need to build an extension for the ham shack!! :-)

If I want to see how my rig is getting out I work a few stations.

If I want to start a flame war I use my CN-101L or built in meter VSWR meters :-)

DD, W1MCE

Reg Edwards wrote:
> Don't any of you SWR experts have anything to say?
>

436. Re: Radiation Resistance & Efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 11:56:57 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <dMRLb.13335$sv6.36148@attbi_s52>
Source record: 102108

Reg Edwards wrote:

SNIP

Citing references is standard in the business where I last did technical
work.
Most good libraries have a reference section. Most technical
colleges/universities also have excellent resource sections. Anyway ...

SNIP

Our politicians tell exactly the same lies.
> ----
> Reg, G4FGQ
>
>

Here in central NH this morning it is getting cool. Real cool. Air
temperature is -8F and still going down at 1200Z. Why, it's so cold that
the local weatherman chided that ... are you ready for this??

"It's so cold the politicians are keeping their hands in their own pockets."

Love it!! DD, W1MCE

437. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 14:08:41 UTC
From: Phil <phil.bradway@verizon.net>
Message-ID: <JHTLb.992$Qq.855@nwrdny01.gnilink.net>
Source record: 102109

```
"John Smith" <jocjo_john@yooha.com> wrote in message
news:btnq3n0t35@enews2.newsguy.com...
>
> " Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
> news:cvJLb.10175$8H.27238@attbi_s03...
> > I believe you have the correct answer Phil.. I would guess that during a
> > wheel bearing grease job the mechanic forgot to reassemble it.
> > I have never had this problem but I must say my vehicle
> > is not made with an external antenna
> > Regards
> > Art
> >
> > "Phil" <phil.bradway@verizon.net> wrote in message
> > news:NuGLb.36$Qq.29@nwrdny01.gnilink.net...
> > > The problem may be related to a broken static wiper in one or both of
> the
> > > front hub caps (not wheel covers). It looks something like a spring
and.
> > in
> > > effect, "grounds" the wheel to the axle.. I had a similar problem on
an
> > old
> > > Chrysler.
> > >
> > > Phil, KB2HQ
> > >
>
>
> Why would the static wiper suddenly start working when I got on newer
> asphalt and quit working again when I went back on the old asphalt?
>
> The external antenna is factory-supplied by Honda.
>
>
```

438. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 14:10:48 UTC
From: Phil <phil.bradway@verizon.net>
Message-ID: <IJTLb.5289$TC6.3547@nwrdny03.gnilink.net>
Source record: 102110

If the road surface is not generating much static, the wiping effect would
not be needed. A good test is to touch the brakes. Does the noise go away?
That does assume that the pads or shoes have some metallic content, though.

Phil, KB2HQ
PS Sorry about the last empty post

"John Smith" <jocjo_john@yooha.com> wrote in message
news:btnq3n0t35@enews2.newsguy.com...
>
> " Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
> news:cvJLb.10175$8H.27238@attbi_s03...
> > I believe you have the correct answer Phil.. I would guess that during a
> > wheel bearing grease job the mechanic forgot to reassemble it.
> > I have never had this problem but I must say my vehicle
> > is not made with an external antenna
> > Regards
> > Art
> >
> > "Phil" <phil.bradway@verizon.net> wrote in message
> > news:NuGLb.36$Qq.29@nwrdny01.gnilink.net...
> > > The problem may be related to a broken static wiper in one or both of
> the
> > > front hub caps (not wheel covers). It looks something like a spring
and.
> > in
> > > effect, "grounds" the wheel to the axle.. I had a similar problem on
an
> > old
> > > Chrysler.
> > >
> > > Phil, KB2HQ
> > >
>
>
> Why would the static wiper suddenly start working when I got on newer
> asphalt and quit working again when I went back on the old asphalt?
>
> The external antenna is factory-supplied by Honda.
>
>

439. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 14:31:10 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040110093110.15561.00002706@mb-m12.aol.com>
Source record: 102111

>
>OR, the differing road surface really causes varying amounts of static, as
>the OP observed. The act of a tire rolling on an asphalt surface involves a
>certain amount of deformation or "squirm" of the tire body. This scrubbing
>action will allow triboelectric charging; the same effect you get by rubbing
>the faceplate of a plastic meter or shuffling your shoes across a carpet.
>Different mating surfaces yield differing amounts of triboelectric
>generation.
>
>I have experienced static conditions, during a Wyoming snow-storm, so bad
>that it blanked out broadcast AM radio in my car. So just driving through
>the air can cause vehicle charging. Even if you discount the road surface
>triboelectric effect, it's also quite possible that different road surfaces
>might have widely varying conductivity (perhaps due to contaminates and
>moisture trapped in the road surface texture).
>--
>Ed
>WB6WSN
>
>

Bingo!
Install little wire brushes on the bumper, like seen on the wings of airplanes,
for the static dissipation and your troubles will vanish.

Yuri, K3BU/m

440. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 15:11:19 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <2JqdnWm0ulu-i53dRVn-vw@comcast.com>
Source record: 102112

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
news:btne0d$avk1$1@news3.infoave.net...
> Get some anti-static power for your tires.
>
I don't know if they still make it, but that used to be the standard fix.

Tam/WB2TT

441. Re: cheap power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 15:35:36 UTC
From: Dan Vitale <dan@cwdesigners.com>
Message-ID: <ivudnbu6_vAuhp3dRVn-jg@pghconnect.com>
Source record: 102113

Sound good. Years ago I had 2 10A switching supplies and I put them in parallel to get 20A@12 V. Was thinking you probably could do the same with those and that would be enough to run most 100w transceivers. I just got an MFJ switching supply and paid around $140 for it!

KD6P
Dan Vitale

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message news:btnvrj$b7le$1@news3.infoave.net...
> I found a source of really cheap power supplies to run my DC powered
> electric chargers. http://www.ramboy.com sells a 12 volt @ 13 amp power
> supply for $19.95 including shipment.
>
> After I got it, I cranked up the voltage to 13.2 volts and it still supplied
> almost 13 amps. Small package switching regulator type.
>
> If your looking for a means to power a 12 volt DC charger this is a cheap
> way to go. By the way I am in no way connected with them, simply a satisfied
> user that is ordering 2 more.
>
> --
> <--
> Editor - Gilbert News On-Line
> Http://gilbertnews.net
>
>

442. Re: cheap power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 15:49:32 UTC
From: k9sqg@aol.com
Message-ID: <20040110104932.22946.00001371@mb-m27.aol.com>
Source record: 102114

As long as you don't have to fault isolate a problem with a switching power supply...hi...

443. Beam material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 16:05:23 UTC
From: Tim <tklesch@cboss.com>
Message-ID: <qc8000tv4qtind9i9kmpjl6jnntu4gihq3@4ax.com>
Source record: 102115

Hello to the group!

I am wondering if there is any difference in performance or lifetime
of beams made from size 10 wire or aluminum tube, and what is the
difference between the tubing bought at a local home center vs tube
bought from an antenna source?
Thanks for any replies.

73,
Tim
WN8OAB

444. Re: HF active antennas for cars - any new models?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 16:11:34 UTC
From: n1jpr@hotmail.com
Message-ID: <95a201e0.0401100811.3e4404b8@posting.google.com>
Source record: 102117

Thank you all!

Hmm, let's see...

Radiomaster: new to me, price OK, but not mobile, no AM dampening.

MFJ-1024: I knew that one, rather similar, probably easier to repackage or fit on a a magmount. Attenuator: very useful!

Sony AN-1: old model, discontinued; as above, but no attenuator (?)

Hyundai Santa Fe: ok, it's built into a car that's not my model, no SW, no idea what it is. [My old Celica had a hidden AM/FM windshield antenna already 15 yrs ago, and worked very well, but I stuck a whip on the side of the sunroof for SW...]

MJ aww-topsy: autopsy? Uh?

Methinks the product I want is still firmly planted in the imaginary domain!
If I get off my bony butt and build it, I'll share the joy.

Again, if anyone has suggestions for plans (both ELECTRICAL and MECHANICAL!), here's my dream specs, which I bet would make several people happy:

- Preamp passband optimized for 3-26 MHz, matching short telescopic whip (remember, SW-BCL more than ham radio), rolling off steep on either side. Not that easy, may require a bit of creativity. In my area, a tight perimeter around the HF passband is essential. Sometime my car radios don't receive ANYTHING AT ALL because of monstruous FM overloads.

- Powered by 12Vdc, via thin 50 Ohm coax, RG 174 or similar. Pretty standard too.

- Mag mounted, for easy installation even on rental cars, etc. There's a ton of those out there for VHF / UHF / CB etc.

- Power / RF splitter, maybe with attenuator knob.

- Additional step-up RF transformer for matching coax to random-wire socket on portables (I tried it, it does make a big difference).

Any hints, other than using a glorious J310?

445. Re: cheap power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 16:11:36 UTC
From: Paul Landregan <plandregan@hotmail.com>
Message-ID: <btp87g$8ps50$1@ID-198833.news.uni-berlin.de>
Source record: 102116

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
news:btnvrj$b7le$1@news3.infoave.net...
> I found a source of really cheap power supplies to run my DC powered
> electric chargers. http://www.ramboy.com sells a 12 volt @ 13 amp power
> supply for $19.95 including shipment.
>
> After I got it, I cranked up the voltage to 13.2 volts and it still
supplied
> almost 13 amps. Small package switching regulator type.
>
> If your looking for a means to power a 12 volt DC charger this is a cheap
> way to go. By the way I am in no way connected with them, simply a
satisfied
> user that is ordering 2 more.
>
> --
> <--
> Editor - Gilbert News On-Line
> Http://gilbertnews.net
>
>

Anything like this been found in the UK?

PSU's are pretty dear here.

446. Re: cheap power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 16:19:26 UTC
From: Jim <kf4tun@adelphia.net>
Message-ID: <iCVLb.10416$uF6.3247522@news1.news.adelphia.net>
Source record: 102118

The price has increased to $24.00.

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
news:btnvrj$b7le$1@news3.infoave.net...
> I found a source of really cheap power supplies to run my DC powered
> electric chargers. http://www.ramboy.com sells a 12 volt @ 13 amp power
> supply for $19.95 including shipment.
>
> After I got it, I cranked up the voltage to 13.2 volts and it still
supplied
> almost 13 amps. Small package switching regulator type.
>
> If your looking for a means to power a 12 volt DC charger this is a cheap
> way to go. By the way I am in no way connected with them, simply a
satisfied
> user that is ordering 2 more.
>
> --
> <--
> Editor - Gilbert News On-Line
> Http://gilbertnews.net
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.559 / Virus Database: 351 - Release Date: 1/7/04

447. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 16:41:09 UTC
From: richardharrison@webtv.net
Message-ID: <1273-40002B25-10@storefull-3257.bay.webtv.net>
Source record: 102019

Art, KB9MZ wrote:
"Taking this point further, one wonders why inductors in the real world are not designed to be a point load, albeit in a two dimensional world."

Seems we exhausted this topic some time ago. The ends of a coil do not have to be 180-degrees out of phase due to the configuration and composition of connections external to the coil. Waves traveling in opposite directions through the coil can produce a standing wave within the coil regardless of coil position. Energy into one end of a coil does not necessarily equal energy out because radiation and conversion to heat may not be uniform throughout the coil.

Nevertheless, I`m elated. I`ve found my copy of Terman`s "Electronic and Radio Engineering".
On page 11, Terman says:
"Inductance in microhenrys = (F)(nsquared)(d)
n = number of turns
d = diameter of coil measured to center of wires
F = constant that depends only upon the ratio of length to diameter, given in Fig 2.2"

The inductance formula above is for a single-layer solenoid. The footnote says:
"A comprehensive collection of such formulas is given by F.E. Terman, "Radio Engineers` Handbook" pp 48-64, McGraw-Hill Book Company, Inc., New York, 1943."

On pages 59 and 60 of Terman`s "Handbook" he treats a "Flat Retangular Coil". He gives a formula (47) for its inductance, which is complicated by multiple dimensions, length, width, etc. Inductance is nevertheless proportional to the square of the number of turns as in the case of a solenoid.

My Terman`s Handbook is difficult for me to read due to its damage in a flood a few years ago. Its pages are stuck together and torn, but it`s worth trying to use.

Doubts about radiation from shortened antennas can be resolved by reference to "Terman`s "Radio Engineers` Handbook". On page 795 Terman says:
"Top loading has the same effect on field distribution in a vertical plane as a greater height."

Terman also says of a loading coil inserted in an antenna a little way down from the top:
"This method of top loading gives results equivalent to those obtained

with a capacity top."

Maybe a flat coil is more equal than a solenoid. Were it of great importance, Terman would have told us.

Best regards, Richard Harrison, KB5WZI

448. Re: Beam material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 19:16:38 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <bqOdnXUS_7-Z353dRVn-gw@ctc.net>
Source record: 102020

> I am wondering if there is any difference in performance or lifetime
> of beams made from size 10 wire or aluminum tube, and what is the
> difference between the tubing bought at a local home center vs tube
> bought from an antenna source?
> Thanks for any replies.
>
There are many grades of aluminum. I think it is 6061 that is usually the best for the antennas . It will withstand the weather beter than some other grades. As the wind bends the elements and ice forms on them and they bend they will become brittle and maybe break if the wrong kind is used. Strength is another property. If used for the boom one type may bend too much for the length.

449. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 22:52:53 UTC
From: tdonaly@aol.com
Message-ID: <20040110175253.14191.00003014@mb-m28.aol.com>
Source record: 102021

Richard Harrison wrote,
>
>Maybe a flat coil is more equal than a solenoid. Were it of great
>importance, Terman would have told us.
>

A flat coil should work fine as a capacitance hat.
73,
Tom Donaly, KA6RUH

450. Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 23:00:21 UTC
From: David Huisman <dhuisman@bigpond.net.au>
Message-ID: <9u%Lb.4887$Wa.2081@news-server.bigpond.net.au>
Source record: 102022

Hi,

I am looking for some ideas for a low cost circuit to detect if an antenna has been broken or removed
from a 10mW transmitter.

Initial thoughts are to measure SWR but I need a small, low cost circuit I can place between PCB Antenna connector and the antenna.

Thanks in advance for any assistance

Kind Regards

David Huisman

451. Re: Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 23:48:03 UTC
From: jgboyles@aol.com
Message-ID: <20040110184803.26088.00002467@mb-m15.aol.com>
Source record: 102023

>I am looking for some ideas for a low cost circuit to detect if an antenna
>has been broken or removed
>from a 10mW transmitter.

Hi David, The best, low cost idea that comes to mind is look and see if the antenna is gone.
I don't think that was what you were looking for. What you need is something like the circuits in solid state HF rigs that reduce power when they sense a mismatch. At 10mW you will need additional circuitry to boost the signal up to a level that the sense circuit can use.
All the circuits I know about will cost quite a bit more than your 10mW transmitter. Out of curiosity, what are you trying to do?
73 Gary N4AST

452. Re: 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-10 23:56:54 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <f54100lvos0bc7j66vro19q0rlj79n0gdr@4ax.com>
Source record: 102024

On Fri, 09 Jan 2004 12:46:24 GMT, "Marvin Rosen" <puns@verizon.net>
wrote:

> In reference to a previous post concerning
>the construction of a center-fed 10 mtr vertical.
>Is it posible to construct a 10, 6 & 2 mtr all-in
>one center fed vertical using coax as the feed line?
>

A strip of 450 ohm twinlead would get you two dipoles, side by side.
Not sure how to work a 3rd one in there...

Bob
k5qwg

453. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 00:22:07 UTC
From: jgboyles@aol.com
Message-ID: <20040110192207.26088.00002470@mb-m15.aol.com>
Source record: 102025

>A flat coil should work fine as a capacitance hat.

I have thought about trying this. With a spiral or flat coil you have a hat and a loading coil all rolled up in one. Winding spiral coils is not easy, and the mechanics of mounting on my mobile antenna have kept me from trying, but I may yet. What do you think Tom?
73 Gary N4AST

454. Re: cheap power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 00:56:26 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btq6vr$c8b4$1@news3.infoave.net>
Source record: 102026

Exactly the reason I ordered 2 additional units. The power supply on my
Ten-Tec went south (I suspect it is just the regulator) but this makes for a
cheap backup. By the way they do have remote sense
.
"Dan Vitale" <dan@cwdesigners.com> wrote in message
news:ivudnbu6_vAuhp3dRVn-jg@pghconnect.com...
> Sound good. Years ago I had 2 10A switching supplies and I put them in
> parallel to get 20A@12 V. Was thinking you probably could do the same with
> those and that would be enough to run most 100w transceivers. I just got
an
> MFJ switching supply and paid around $140 for it!
>
> KD6P
> Dan Vitale
>
> "w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
> news:btnvrj$b7le$1@news3.infoave.net...
> > I found a source of really cheap power supplies to run my DC powered
> > electric chargers. http://www.ramboy.com sells a 12 volt @ 13 amp power
> > supply for $19.95 including shipment.
> >
> > After I got it, I cranked up the voltage to 13.2 volts and it still
> supplied
> > almost 13 amps. Small package switching regulator type.
> >
> > If your looking for a means to power a 12 volt DC charger this is a
cheap
> > way to go. By the way I am in no way connected with them, simply a
> satisfied
> > user that is ordering 2 more.
> >
> > --
> > <--
> > Editor - Gilbert News On-Line
> > Http://gilbertnews.net
> >
> >
>
>

455. Re: cheap power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 00:58:19 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <btq73c$c4p7$1@news3.infoave.net>
Source record: 102027

Go to e-bay, he advertises there as well and the "buy it now" is $19.95.

"Jim" <kf4tun@adelphia.net> wrote in message
news:iCVLb.10416$uF6.3247522@news1.news.adelphia.net...
> The price has increased to $24.00.
>
>
> "w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
> news:btnvrj$b7le$1@news3.infoave.net...
> > I found a source of really cheap power supplies to run my DC powered
> > electric chargers. http://www.ramboy.com sells a 12 volt @ 13 amp power
> > supply for $19.95 including shipment.
> >
> > After I got it, I cranked up the voltage to 13.2 volts and it still
> supplied
> > almost 13 amps. Small package switching regulator type.
> >
> > If your looking for a means to power a 12 volt DC charger this is a
cheap
> > way to go. By the way I am in no way connected with them, simply a
> satisfied
> > user that is ordering 2 more.
> >
> > --
> > <--
> > Editor - Gilbert News On-Line
> > Http://gilbertnews.net
> >
> >
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.559 / Virus Database: 351 - Release Date: 1/7/04
>
>

456. Re: 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 01:02:27 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <_Y6dnf0qmrNCO53dRVn-vw@ctc.net>
Source record: 102030

>
> > In reference to a previous post concerning
> >the construction of a center-fed 10 mtr vertical.
> >Is it posible to construct a 10, 6 & 2 mtr all-in
> >one center fed vertical using coax as the feed line?
> >
>
> A strip of 450 ohm twinlead would get you two dipoles, side by side.
> Not sure how to work a 3rd one in there...
>
> Bob
> k5qwg
>

For that short of a distance you use ladder line and weave another wire inbetween. I am just not sure how well wires work seperated by such a short distance.

Some 5/8 wavelength 2 meter antennas with a base coil work as a loaded 6 meter antenna. Not sure how to get 10 meters to work with that type of antenna. Maybe a T shaped piece of metal with a loaded 10 meter whip attached to it with the 6 and 2 meter antenna.

457. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 01:17:39 UTC
From: tdonaly@aol.com
Message-ID: <20040110201739.04241.00003086@mb-m29.aol.com>
Source record: 102028

Gary wrote,
>
>>A flat coil should work fine as a capacitance hat.
>
>I have thought about trying this. With a spiral or flat coil you have a hat
>and a loading coil all rolled up in one. Winding spiral coils is not easy,
>and
>the mechanics of mounting on my mobile antenna have kept me from trying, but
>I
>may yet. What do you think Tom?
>73 Gary N4AST
>

Hi Gary,
it may not be worth all the work involved. I'm not an expert on
mobile antennas, so don't take anything I write on the subject too seriously.
On the other hand, there should be some current into the coil causing a
changing charge density at the other end which would, in turn, cause a
changing electric field in the vicinity of the antenna, which would cause
electromagnetic radiation, so you might see some improvement over
what you're using now, after all.
Try it out.
73,
Tom Donaly, KA6RUH

458. Re: Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 01:20:35 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <OaednU1rp_5yOZ3dRVn-ug@comcast.com>
Source record: 102029

David,

If your antenna has DC continuity, put DC on the feedline through an RF choke and resistor. Do it like this: DC voltage to resistor to RF choke to center conductor of coax. Red LED from junction of resistor and RF choke to shield of coax. The red LED will come on when the path is broken. If the antenna normally does not provide a path, connect anothe RF choke at the antenna, in such a way that whoever steals the antenna also takes the RF choke. You want the RF chokes to be PARALLEL resonant somewhere just above the operating frequency.

Tam/WB2TT
"David Huisman" <dhuisman@bigpond.net.au> wrote in message
news:9u%Lb.4887$Wa.2081@news-server.bigpond.net.au...
> Hi,
>
> I am looking for some ideas for a low cost circuit to detect if an antenna
> has been broken or removed
> from a 10mW transmitter.
>
> Initial thoughts are to measure SWR but I need a small, low cost circuit I
> can place between PCB Antenna connector and the antenna.
>
> Thanks in advance for any assistance
>
> Kind Regards
>
> David Huisman
>
>

459. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 02:21:23 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4000b5c8_1@news1.prserv.net>
Source record: 102031

John:

Before I answer the questions you asked (I notice most correspondents answered a lot of questions you didn't ask), I want to point out a few things. Ever think about how many tires wear out every year? You know, 1/2" or more of rubber worn off millions of tires? Cubic yards of rubber? Where does it all go? Piles of ground rubber along the roads? Well, some of it remains stuck to the surface of the roadway. Look at any cement roadway for confirmation. New, nice white or light gray. Old, dark gray to black. Now, in spite of EPA, go out and press the leads of an ohmmeter to the tread of your tires. Not the sidewalls, which may be a different mix, and usually don't contribute anyway, but to the tread itself. Slightly conductive, unless they are an unusual brand. So, as you and all the other vehicles travel on that fresh, non conductive asphalt, day by day you make it more and more conductive. So the current which creates the noise, and is driven by voltage from triboelectric and other effects, is markedly different when traveling on a conductive surface than it is on a non-conductive surface.

So, in the order you asked:
No, you didn't imagine it.
You have noise on old asphalt because it tends to be not a good insulator, and current flows, creating noise.
Fresh asphalt is much less conductive, so less noise generating current flows.

--
Crazy George
Remove N O and S P A M imbedded in return address

"John Smith" <jocjo_john@yooha.com> wrote in message
news:btn7qg059h@enews3.newsguy.com...
> Here's one to explain:
>
> There I was, driving along a two-lane asphalt highway trying to listen to
an
> AM band station on 1230 kHz about 70 miles away (they only run 250 Watts)
> and getting considerable static. I noticed that the static diminished when
I
> came to a stop and resumed when I began again. This was not alternator
whine
> or spark plug noise--more like white noise. So, I thought, it must be
static
> from wind in the antenna or maybe tire-on-roadway static.
>

> Then I hit a section of road with a new 3-week-old layer of asphalt laid
> over the old asphalt. The noise disappeared! The noise returned when I
drove
> off that new section of asphalt. Hmmmm. Did I just imagine it? So, I asked
> my XYL to pay attention to the station/static when the next opportunity
> arrived. Another section of fresh asphalt produced the same thing and she
> can verify it. It happened every time.
>
> Now I ask you... why would I have statickey noise from driving on old
> asphalt? Or, maybe the question should be why would fresh asphalt be a
noise
> quencher? Or something.
>
>
> Thanks,
> John
> KD5YI
>
>
>

460. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 02:55:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4000bbb3$1_6@corp.newsgroups.com>
Source record: 102032

JGBOYLES wrote:
> With a spiral or flat coil you have a hat
> and a loading coil all rolled up in one. Winding spiral coils is not easy, and
> the mechanics of mounting on my mobile antenna have kept me from trying, but I
> may yet.

There was a magazine article a couple of years ago about such
in one of the ham rags - sorry, don't remember which one.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

461. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 02:59:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4000bca3_6@corp.newsgroups.com>
Source record: 102033

Tdonaly wrote:
> On the other hand, there should be some current into the coil causing a
> changing charge density at the other end which would, in turn, cause a
> changing electric field in the vicinity of the antenna, which would cause
> electromagnetic radiation, so you might see some improvement over
> what you're using now, after all.

If the pancake coil is in the horizontal plane, it will probably
radiate horizontally polarized radiation and probably straight up.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

462. Re: Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 03:07:38 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <btqelt029ic@enews2.newsguy.com>
Source record: 102034

"David Huisman" <dhuisman@bigpond.net.au> wrote in message
news:9u%Lb.4887$Wa.2081@news-server.bigpond.net.au...
> Hi,
>
> I am looking for some ideas for a low cost circuit to detect if an antenna
> has been broken or removed
> from a 10mW transmitter.
>
> Initial thoughts are to measure SWR but I need a small, low cost circuit I
> can place between PCB Antenna connector and the antenna.
>
> Thanks in advance for any assistance
>
> Kind Regards
>
> David Huisman
>

I'm the lazy sort. I'd get a 1N34 diode, a capacitor, a resistor, and either a surplus microammeter or one of those cheap little digital panel meters. Build an RF voltmeter. 10 mW into a 50 Ohm load should cause about 1 V of RF when peak rectified. That's enough to read on a meter through the diode. It doesn't matter what the meter reads--just jot down the value when you know the antenna system is right and then watch for changes.

You must be a QRPer. Someday I hope to get my homebrew Micromountaineer (.5 W) on the air.

Have fun.

John

463. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 03:13:42 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <btqf1802acg@enews2.newsguy.com>
Source record: 102035

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
news:4000b5c8_1@news1.prserv.net...
> John:
>
> Before I answer the questions you asked (I notice most correspondents
> answered a lot of questions you didn't ask), I want to point out a few
> things. Ever think about how many tires wear out every year? You know,
> 1/2" or more of rubber worn off millions of tires? Cubic yards of rubber?
> Where does it all go? Piles of ground rubber along the roads? Well, some
> of it remains stuck to the surface of the roadway. Look at any cement
> roadway for confirmation. New, nice white or light gray. Old, dark gray
to
> black. Now, in spite of EPA, go out and press the leads of an ohmmeter to
> the tread of your tires. Not the sidewalls, which may be a different mix,
> and usually don't contribute anyway, but to the tread itself. Slightly
> conductive, unless they are an unusual brand. So, as you and all the
other
> vehicles travel on that fresh, non conductive asphalt, day by day you make
> it more and more conductive. So the current which creates the noise, and
is
> driven by voltage from triboelectric and other effects, is markedly
> different when traveling on a conductive surface than it is on a
> non-conductive surface.
>
> So, in the order you asked:
> No, you didn't imagine it.
> You have noise on old asphalt because it tends to be not a good insulator,
> and current flows, creating noise.
> Fresh asphalt is much less conductive, so less noise generating current
> flows.
>
> --
> Crazy George

Well, okay then. That's what I get for posing the question--now I'm
obligated to go measure my tires with an Ohmmeter (when nobody is looking).

I think there were a couple of other posts hinting at this. Sounds like a
winner.

Thanks, Crazy. Er, thanks, George.

John

464. Are GAM SS-2 VHF 35" whip marine antenna 6db performance claims possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 05:29:12 UTC
From: brand@rushmore.com
Message-ID: <80bcbb59.0401102129.669cc804@posting.google.com>
Source record: 102036

I am trying to find out if the performance claims on the GAM SS-2 antenna could be accurate. http://www.gamelectronicsinc.com/mini.html I found 2 reviews that rated this antenna #1 for a vhf short marine antenna.
One was by Powerboat Reports
http://www.powerboat-reports.com/pub/13_7/features/4722-1.html .
And the other was by Practical Sailor
http://www.gamelectronicsinc.com/practical.html

I spoke with the manufacturer and he said the gain on this antenna is 6db or 5.1dbi. Is this possible or not possible from a 35" whip base load antenna? If it could be possible, then under what conditions would it be possible to get that type of gain from an antenna this size?

I plan on calling the manufacturer back. What would be some good questions to ask to find out the true performance of this antenna?

Thanks,
Doug

465. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 05:30:55 UTC
From: tdonaly@aol.com
Message-ID: <20040111003055.19161.00002342@mb-m13.aol.com>
Source record: 102037

Cecil wrote,
>
>Tdonaly wrote:
>> On the other hand, there should be some current into the coil causing a
>> changing charge density at the other end which would, in turn, cause a
>> changing electric field in the vicinity of the antenna, which would cause
>> electromagnetic radiation, so you might see some improvement over
>> what you're using now, after all.
>
>If the pancake coil is in the horizontal plane, it will probably
>radiate horizontally polarized radiation and probably straight up.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

It might. Do you want to tell us why you think so, Cecil?
73,
Tom Donaly

466. Re: Are GAM SS-2 VHF 35" whip marine antenna 6db performance claims possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 05:47:40 UTC
From: Howard <#mensch90249@yahoo.com>
Message-ID: <74o1001a154lmug92mo6l4m3gejqvr4fvs@4ax.com>
Source record: 102038

On 10 Jan 2004 21:29:12 -0800, brand@rushmore.com (SDNomad) wrote:

>I am trying to find out if the performance claims on the GAM SS-2
>antenna could be accurate. http://www.gamelectronicsinc.com/mini.html
>I found 2 reviews that rated this antenna #1 for a vhf short marine
>antenna.
>One was by Powerboat Reports
>http://www.powerboat-reports.com/pub/13_7/features/4722-1.html .
>And the other was by Practical Sailor
>http://www.gamelectronicsinc.com/practical.html
>
>I spoke with the manufacturer and he said the gain on this antenna is
>6db or 5.1dbi. Is this possible or not possible from a 35" whip base
>load antenna? If it could be possible, then under what conditions
>would it be possible to get that type of gain from an antenna this
>size?
>
>I plan on calling the manufacturer back. What would be some good
>questions to ask to find out the true performance of this antenna?
>
>Thanks,
>Doug

Doug,
Their 6db claim is in reference to a "coaxial antenna" and not against a dipole; which would read dbd, or against an isotropic source which is the dbi rating. Basically it's a marketing ploy. What they have is essentially an end-fed half wave antenna which should perform fairly much like a 'reference' dipole. You might want to ask them to describe their "coaxial antenna" and what it's performance is in comparison to a dipole and isotropic source (you should find about 2.1 db difference between the two - if not you are being hit with 'marketing science'). Gain in an antenna is a relative not an absolute measurement, if they compare it to a wet string I'm sure the gain would be enormous - it's all in how you represent a product.

I looked at the site and what I saw is your basic end fed half-wave antenna - the lack of need for radials is what clued me in. The gain should be about the same as any other antenna of same/similar design. That being said, if they are rated as being more durable than other manufacturers that is a plus -especially in the marine environment - but don't expect more gain.

Good luck, but I am skeptical that you will get the 'true' performance
of this antenna from the manufacturer.

Howard

467. Re: Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 10:05:45 UTC
From: David Huisman <dhuisman@bigpond.net.au>
Message-ID: <Zd9Mb.5914$Wa.4378@news-server.bigpond.net.au>
Source record: 102039

I am unable to use DC continuity. Even if I had a termination at the antenna base , this would only indicate broken cable, but not a cut antenna. The DC path would need to be to the tip of the antenna.

I have some 10-bit analog inputs available for monitoring and can resolve down to a couple of mV.

Any other ideas ?

Thanks

--

Kind Regards

David Huisman "Tarmo Tammaru" <t-tammaru@home.com> wrote in message news:OaednU1rp_5yOZ3dRVn-ug@comcast.com...
> David,
>
> If your antenna has DC continuity, put DC on the feedline through an RF
> choke and resistor. Do it like this: DC voltage to resistor to RF choke to
> center conductor of coax. Red LED from junction of resistor and RF choke
to
> shield of coax. The red LED will come on when the path is broken. If the
> antenna normally does not provide a path, connect anothe RF choke at the
> antenna, in such a way that whoever steals the antenna also takes the RF
> choke. You want the RF chokes to be PARALLEL resonant somewhere just above
> the operating frequency.
>
> Tam/WB2TT
> "David Huisman" <dhuisman@bigpond.net.au> wrote in message
> news:9u%Lb.4887$Wa.2081@news-server.bigpond.net.au...
> > Hi,
> >
> > I am looking for some ideas for a low cost circuit to detect if an
antenna
> > has been broken or removed
> > from a 10mW transmitter.
> >
> > Initial thoughts are to measure SWR but I need a small, low cost circuit
I
> > can place between PCB Antenna connector and the antenna.
> >
> > Thanks in advance for any assistance
> >
> > Kind Regards

> >
> > David Huisman
> >
> >
>
>

468. MMANA question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 11:21:39 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000001a.00262572@btinternet.com>
Source record: 102040

Hi,

With JE3HHT's MMANA antenna modelling application, does
anybody know how to redirect the .ini file from the desktop
to some other directory. I'm using XP Home.

TIA - Joe, G3LLV

469. Re: OT: T2FD for TV reception?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 12:18:23 UTC
From: cbigam@somewhereelse.nucleus.com
Message-ID: <40013df9@news.nucleus.com>
Source record: 102041

Richard Clark <kb7qhc@comcast.net> wrote:
> On Fri, 09 Jan 2004 23:30:06 GMT, cbigam@somewhereelse.nucleus.com
> wrote:
>
>>I've been wondering about building an antenna for TV (and FM)
>>reception, ideally fairly non-directional, i.e. 'set and forget.'
>>The T2FD seems nearly ideal (relatively omnidirectional in the compass
>>plane, small, good noise rejection, etc.) and yet I've seen nothing
>>about using these for such a purpose.
>>
> Hi OM,
>
> I can think of 3 reasons: loss to the resistor, cross polarization,
> ghosts.

Um...OK. How would these compare to a set of rabbit ears then?

470. Re: Are GAM SS-2 VHF 35" whip marine antenna 6db performance claims possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 13:20:23 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <J5ydnfU8JbWC0pzdRVn-jg@ctc.net>
Source record: 102043

> I am trying to find out if the performance claims on the GAM SS-2
> antenna could be accurate. http://www.gamelectronicsinc.com/mini.html
> I found 2 reviews that rated this antenna #1 for a vhf short marine
> antenna.
> One was by Powerboat Reports
> http://www.powerboat-reports.com/pub/13_7/features/4722-1.html .
> And the other was by Practical Sailor
> http://www.gamelectronicsinc.com/practical.html
>
> I spoke with the manufacturer and he said the gain on this antenna is
> 6db or 5.1dbi. Is this possible or not possible from a 35" whip base
> load antenna? If it could be possible, then under what conditions
> would it be possible to get that type of gain from an antenna this
> size?

Anytime I see a gain of around 6 db at a frequency around 150 mhz the antenna beter be about 20 feet tall. If not it could be refferanced to a dummy load or most anything else. An antenna around 36 inches long is usually rated about 3 db of gain at 150 mhz. That is not even refferanced to a dipole. About 18 inches of antenna is a 1/4 wave whip. It is minus a db or so refferanced to a dipole.

You might get an antenna modeling program to show the 6 db of gain if it is isotropic and also you add some ground reflection in. This is not usually done on vhf.

I would not even fool with the manufacturer that makes a claim like this.

471. Re: Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 13:23:50 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <J5ydnfQ8JbW90pzdRVn-jg@ctc.net>
Source record: 102042

>
> I am looking for some ideas for a low cost circuit to detect if an antenna
> has been broken or removed
> from a 10mW transmitter.
>
At that power level why worry about a broken antenna ? The components
should be able to handle the loss . It would probably take more electronics
than it was worth. One idea is to monitor the current in the final stage
and see if it changes with the loss of the antenna.

472. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 14:05:37 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0401110605.4a19aa42@posting.google.com>
Source record: 102044

Pancakes have been written about for a while in RADCOM of the U.K.
In Europe there is some experimenting going on below the
broadcast band but it is limited to a few watts.
The basket weave was mainly introduced to REMOVE the
intercapacitance of the coils and a capacity hat was
introduced immediately AFTER the inductor.
Because they were only using a few watts there was not a concern
regarding voltage breakdown, a concern that should be reviewed before
entertaining the idea at the end of a high powered whip !
Regards
Art

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4000bbb3$1_6@corp.newsgroups.com>...
> JGBOYLES wrote:
> > With a spiral or flat coil you have a hat
> > and a loading coil all rolled up in one. Winding spiral coils is not easy, and
> > the mechanics of mounting on my mobile antenna have kept me from trying, but I
> > may yet.
>
> There was a magazine article a couple of years ago about such
> in one of the ham rags - sorry, don't remember which one.

473. Re: Are GAM SS-2 VHF 35" whip marine antenna 6db performance claims possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 14:28:13 UTC
From: brand@rushmore.com
Message-ID: <80bcbb59.0401110628.19c8c12a@posting.google.com>
Source record: 102045

What are the physical characteristics of this antenna that would keep it from having a gain of 5.1 dbi? Is the height the determining factor for the amount of gain from an antenna? Could the coil be wound in such a way to get the increased gain from a 3' whip?

474. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 14:45:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4001620f$1_7@corp.newsgroups.com>
Source record: 102046

Tdonaly wrote:
> Cecil wrote,
>>If the pancake coil is in the horizontal plane, it will probably
>>radiate horizontally polarized radiation and probably straight up.
>
> It might. Do you want to tell us why you think so, Cecil?

Just off the top of my head - since the coil exists essentially only
in the horizontal plane, the radiation from the coil is likely to be
horizontal. If it is mobile, it is a very low antenna. Very low
horizontal radiation usually tends to result in an NVIS radiation
pattern in the far field. Hope there are no bugs in that logic.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

475. Re: MMANA question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 14:51:39 UTC
From: Eskay <sieb_kNOS@PAMyahoo.ca>
Message-ID: <19le9ttirqrr2.13i2en5xn6r1y.dlg@40tude.net>
Source record: 102047

On Sun, 11 Jan 2004 11:21:39 +0000 (UTC), Joe McElvenney wrote:

> Hi,
>
> With JE3HHT's MMANA antenna modelling application, does
> anybody know how to redirect the .ini file from the desktop
> to some other directory. I'm using XP Home.
>
>
> TIA - Joe, G3LLV

Joe,,There is a Yahoo newsgroup on MMANA.They may be able to help..
I have played off and on with the program but cannot help otherwise.
73 and success de VE3JUA.

476. Re: Are GAM SS-2 VHF 35" whip marine antenna 6db performance claims possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 15:19:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40016a30_7@corp.newsgroups.com>
Source record: 102048

SDNomad wrote:
> What are the physical characteristics of this antenna that would keep
> it from having a gain of 5.1 dbi? Is the height the determining factor
> for the amount of gain from an antenna?

Yes, for a base-loaded whip like this one.

> Could the coil be wound in
> such a way to get the increased gain from a 3' whip?

No, blood out of the proverbial turnip comes to mind.

Since this is a marine antenna, I suspect they are talking about gain
over salt water, i.e. close to a perfect ground. The antenna is a 1/2WL
vertical. EZNEC says the gain of a 1/2WL vertical over average ground is
about 0.5 dBi and over perfect ground is about 7.5 dBi. In free space,
it is, of course, about 2.14 dBi.

The gain of an ordinary 1/4WL monopole over perfect ground is about 5-6 dBi.
So this antenna has essentially no advantage over a 1/4WL monopole or even
a coaxial antenna. They obviously didn't model the "coaxial antenna" over
perfect ground or they didn't fold back the braid to furnish the other
half of the coaxial antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

477. Re: Beam material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 15:29:43 UTC
From: Tim <tklesch@cboss.com>
Message-ID: <hoq200hslmi78e4k5pp4rp0ms4687l2c70@4ax.com>
Source record: 102049

On Sat, 10 Jan 2004 14:16:38 -0500, "Ralph Mowery" <rmowery@ctc.net>
wrote:

> It will withstand the weather beter than some other grades.

Thanks for the reply. Does the Rx/Tx signal degrade as it weathers, or
does the antenna just start looking ugly?
I remember the old tv antennas turned a dull gray, but reception
remained ok.

73,
Tim WN8OAB

478. MFJ-1798 question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 15:38:25 UTC
From: dvari <dmvari@adelphia.net>
Message-ID: <R5eMb.10878$uF6.3587748@news1.news.adelphia.net>
Source record: 102050

Has anyone tinkered with the MFJ-1798 80-2 vert.antenna to include 440mHz?
I wouldn't mind running my FT-5200 on it
if this could be done.
tnx de dave-n2rhl

479. Re: Road static?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 15:55:45 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <1002sgan0pqp1cf@corp.supernews.com>
Source record: 102051

If your antenna is a whip check to see if it still has the little
anti-static ball on top. Also make sure the nut that secures the antenna to
the body is tight.. If it's not a whip check the lead-in ground.
hank wd5jfr
"John Smith" <jocjo_john@yooha.com> wrote in message
news:btqf1802acg@enews2.newsguy.com...
>
> "Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
> news:4000b5c8_1@news1.prserv.net...
> > John:
> >
> > Before I answer the questions you asked (I notice most correspondents
> > answered a lot of questions you didn't ask), I want to point out a few
> > things. Ever think about how many tires wear out every year? You know,
> > 1/2" or more of rubber worn off millions of tires? Cubic yards of
rubber?
> > Where does it all go? Piles of ground rubber along the roads? Well,
some
> > of it remains stuck to the surface of the roadway. Look at any cement
> > roadway for confirmation. New, nice white or light gray. Old, dark
gray
> to
> > black. Now, in spite of EPA, go out and press the leads of an ohmmeter
to
> > the tread of your tires. Not the sidewalls, which may be a different
mix,
> > and usually don't contribute anyway, but to the tread itself. Slightly
> > conductive, unless they are an unusual brand. So, as you and all the
> other
> > vehicles travel on that fresh, non conductive asphalt, day by day you
make
> > it more and more conductive. So the current which creates the noise,
and
> is
> > driven by voltage from triboelectric and other effects, is markedly
> > different when traveling on a conductive surface than it is on a
> > non-conductive surface.
> >
> > So, in the order you asked:
> > No, you didn't imagine it.
> > You have noise on old asphalt because it tends to be not a good
insulator,
> > and current flows, creating noise.
> > Fresh asphalt is much less conductive, so less noise generating current

> > flows.
> >
> > --
> > Crazy George
>
>
> Well, okay then. That's what I get for posing the question--now I'm
> obligated to go measure my tires with an Ohmmeter (when nobody is
looking).
>
> I think there were a couple of other posts hinting at this. Sounds like a
> winner.
>
> Thanks, Crazy. Er, thanks, George.
>
> John
>
>

480. Re: Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 15:58:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <btrrqarkt1@sparta.btinternet.com>
Source record: 102052

Just monitor the voltage across the feedline to the antenna,

Use a diode + capacitor + 100K-ohm resistor + microammeter.

It doesn't matter what the actual voltage is. If it changes from normal
then something is wrong.

Or just keep an eye on the DC milliammeter in the final amplifier circuit.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

481. Re: inducors/form factors/radiation revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 17:30:03 UTC
From: tdonaly@aol.com
Message-ID: <20040111123003.15174.00002869@mb-m04.aol.com>
Source record: 102053

Cecil wrote,
>
>Tdonaly wrote:
>> Cecil wrote,
>>>If the pancake coil is in the horizontal plane, it will probably
>>>radiate horizontally polarized radiation and probably straight up.
>>
>> It might. Do you want to tell us why you think so, Cecil?
>
>Just off the top of my head - since the coil exists essentially only
>in the horizontal plane, the radiation from the coil is likely to be
>horizontal. If it is mobile, it is a very low antenna. Very low
>horizontal radiation usually tends to result in an NVIS radiation
>pattern in the far field. Hope there are no bugs in that logic.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

The only way to be sure is to make or model this thing. I'd like to
make a point or two, though. 1. Since it's a coil, and a small one at that,
it would need current in order to make the B field which would produce
the horizontal E field which would define its polarity. The fact that it would
be
small and placed at the end of the antenna makes me think it would
be starved for current. 2. Since one end of the coil isn't attached to
anything, all it could do would be to accumulate and release charge. This would

create a changing E field, the lines of which, would end on the vehicle.
Since these lines would be roughly vertical, they might produce some
(probably undetectable) advantage in the radiation field. 3. A real
capacitance hat would probably do a much better job and be easier
to make. (How do you keep a flat coil from jiggling and
bouncing around like a clock spring as you're driving down the road?)
4. You might be better off thinking about ground losses in order to improve
your signal. Maybe a bigger truck would help.

73,
Tom Donaly, KA6RUH, COW (Certified Old Wife)

482. Re: OT: T2FD for TV reception?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 18:48:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fe6300hn5tsgiob1ava1a47anafeh1vkeu@4ax.com>
Source record: 102054

On Sun, 11 Jan 2004 12:18:23 GMT, cbigam@somewhereelse.nucleus.com
wrote:

>Richard Clark <kb7qhc@comcast.net> wrote:
>> On Fri, 09 Jan 2004 23:30:06 GMT, cbigam@somewhereelse.nucleus.com
>> wrote:
>>
>>>I've been wondering about building an antenna for TV (and FM)
>>>reception, ideally fairly non-directional, i.e. 'set and forget.'
>>>The T2FD seems nearly ideal (relatively omnidirectional in the compass
>>>plane, small, good noise rejection, etc.) and yet I've seen nothing
>>>about using these for such a purpose.
>>>
>> Hi OM,
>>
>> I can think of 3 reasons: loss to the resistor, cross polarization,
>> ghosts.
>
>Um...OK. How would these compare to a set of rabbit ears then?

Hi OM,

Rabbit ears: no loss to a resistor, selective polarization, ghost
rejection.

73's
Richard Clark, KB7QHC

483. Re: Are GAM SS-2 VHF 35" whip marine antenna 6db performance claims possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 18:53:55 UTC
From: brand@rushmore.com
Message-ID: <80bcbb59.0401111053.1423ba32@posting.google.com>
Source record: 102055

> I would not even fool with the manufacturer that makes a claim like this.

That's what I was thinking, but what about the ratings tests from Powerboat Reports and Practical Sailor. Are these reputable magazines? Also, someone told me they have had good performance from a Maxrad MHB5802 vhf antenna. It is the same type of antenna and claims 1/2 wave, 2.4db with ground plane and unity without ground plane. Would this be a better choice? I know Maxrad is a more well known manufacturer.

484. Re: 10, 6 & 2 Meter Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 19:38:54 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bts8oh0dlt@enews4.newsguy.com>
Source record: 102058

"Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
news:f54100lvos0bc7j66vro19q0rlj79n0gdr@4ax.com...
> On Fri, 09 Jan 2004 12:46:24 GMT, "Marvin Rosen" <puns@verizon.net>
> wrote:
>
> > In reference to a previous post concerning
> >the construction of a center-fed 10 mtr vertical.
> >Is it posible to construct a 10, 6 & 2 mtr all-in
> >one center fed vertical using coax as the feed line?
> >
>
> A strip of 450 ohm twinlead would get you two dipoles, side by side.
> Not sure how to work a 3rd one in there...
>
> Bob
> k5qwg

Now that you mention it, I think I heard somewhere that multiconductor
rotator cable can be used.

John
KD5YI

485. Re: MMANA question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 19:41:48 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000001d.00499fba@btinternet.com>
Source record: 102056

OM VE3JUA,

Thanks for that but I've been there and they require too much personal info for my liking when you sign up to the group.

73 de Joe, G3LLV

486. QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 20:01:43 UTC
From: "Igor V. Lapko" <ur5eoa@qsl.net>
Message-ID: <btsa39$1qgt$1@pandora.alkar.net>
Source record: 102057

Hello dear all !

I am using R-7000 vertical located on the roof of 9-store building.

I was happy to notice the absence of any QRM for both radio and TV broadcasting with my new 1 KW amplifier.

But there is the only problem with neighbor from the last floor - he can hear some SSB transmission in his phone and

It slows down or even breaks the dial up connection to Internet.

Are there any links for ready or homebrew RF filter for "last mile" of phone line?

Any suggestion for this case?

Is it possible to ovecome this problem at all ?

Regards,

73 de UR5EOA

Igor

487. Re: Hillery Duff

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 20:07:29 UTC
From: casalao <laopdrwontlastforever@kingkhamtay-will-be-gone.by2005perhaps>
Message-ID: <52iMb.63873$Vs3.36321@twister.socal.rr.com>
Source record: 102059
Cross-posted to: microsoft.public.win98.networking,de.comp.lang.javascript,comp.sys.hp.mpe,soc.culture.laos,rec.radio.amateur.antenna,comp.sys.ibm.pc.games.strategic,uk.local.east-anglia,de.comm.provider.metronet

SERIOUS WARNING TO ALL SCL,

this mofo ME has been posting his stuff all over the newsgroups. People!!! don't be fooled by this message and the attachment.

You click on the attachment at your own risk. So don't click on it...otherwise you will add unecessary virus to your computer.

-casalao

488. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 20:53:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uid300t8ek1vpaqfkrkrr9aaskjn3imgfs@4ax.com>
Source record: 102060

On Sun, 11 Jan 2004 22:01:43 +0200, "Igor V. Lapko" <ur5eoa@qsl.net>
wrote:

>Hello dear all !
>I am using R-7000 vertical located on the roof of 9-store building.
>I was happy to notice the absence of any QRM for both radio and TV broadcasting with my
new 1 KW amplifier.
>But there is the only problem with neighbor from the last floor - he can hear some SSB
transmission in his phone and
>It slows down or even breaks the dial up connection to Internet.
>
>Are there any links for ready or homebrew RF filter for "last mile" of phone line?
>
>Any suggestion for this case?

Hi Igor,

As a neighborly gesture, offer him ferrite clip on (split toroid,
ferrite cores) to go around the power leads and the telephone leads.
Search for "Amidon" or "Fair-rite" components and engineering
documentation. You should be able to find equivalent sources near
you.

73's
Richard Clark, KB7QHC

489. Re: Hillery Duff

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 21:21:03 UTC
From: The Devil's Advocaat <thedevilsadvocaat@hotmail.com>
Message-ID: <btsenvfdb1@sparta.btinternet.com>
Source record: 102061
Cross-posted to: microsoft.public.win98.networking,de.comp.lang.javascript,comp.sys.hp.mpe,soc.culture.laos,rec.radio.amateur.antenna,comp.sys.ibm.pc.games.strategic,uk.local.east-anglia,de.comm.provider.metronet

>"casalao" <laopdrwontlastforever@kingkhamtay-will-be-gone.by2005perhaps>
wrote in message news:52iMb.63873$Vs3.36321@twister.socal.rr.com...
>SERIOUS WARNING TO ALL SCL,
>
>this mofo ME has been posting his stuff all over the newsgroups. People!!!
don't be fooled by this message and the attachment.
>
>You click on the attachment at your own risk. So don't click on
it...otherwise you will add unecessary virus to your computer.
>
>-casalao

Is there such a thing as a *necessary* virus?

490. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 21:35:44 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <QkjMb.26902$nt4.52272@attbi_s51>
Source record: 102062

Hi Igor,

I just want to confirm that the split ferrites on the phone line at the input to the phone should clear up most phone interference. If it persists then add the core to the power leads again at the input to the phone.

For the internet connection, use the same. Ferrites on the phone line right at the computer. And, if needed, the core on the power leads for the computer.

I use both at the KW level and the ferrites stop the interference 100%.

Deacon Dave, W1MCE
+ + +

Igor V. Lapko wrote:

> Hello dear all !
SNIP
>
> But there is the only problem with neighbor from the last floor - he can hear some SSB transmission in his phone and
>
> It slows down or even breaks the dial up connection to Internet.
>
SNIP

491. Re: Are GAM SS-2 VHF 35" whip marine antenna 6db performance claims possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 21:41:07 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <IvqdnVtYqtARVJzdRVn-vg@ctc.net>
Source record: 102063

> That's what I was thinking, but what about the ratings tests from
> Powerboat Reports and Practical Sailor. Are these reputable magazines?
> Also, someone told me they have had good performance from a Maxrad
> MHB5802 vhf antenna. It is the same type of antenna and claims 1/2
> wave, 2.4db with ground plane and unity without ground plane. Would
> this be a better choice? I know Maxrad is a more well known
> manufacturer.

I don't know anything about those magazines. Does the company advertise in them ? If so do you think they would print anyting negative about them ?
I have almost never seen any magazine print anything negative in the reviews for any product that was advertised in them.
Most let anybody write anything that will sell the magazine.

For most antennas of that type it is best to just look at how well they are put together mechanically..They should all have about the same absolute gain for the same length. I look for a stiff antenna that will not flop around.
Too many people do not understand that to get gain from an antenna for a given type it must be so big. To double the gain (such as going from 3 to 6 db) you must doubel the size , minimum. I assume that for a boat most of the stations they will be transmitting to will be low altitude antennas on shore or another boat. You want an antenna that will keep the signal toward the horizon. The 5/8 wavelength antenna usually does that. They are usually around 34 to 36 inches in length in that frequency range. The 1/4 wave antenna at about 16 to 20 inches will tend to put much of the signal toward the sky like a round ball would look laying on the water. The 5/8 antenna will spread it out like you put your hand on the ball and mashed it flatter.
On land for mobile antennas it depends on the area you are in as to which antenna will work the best. I have compaired amny kinds of antennas over the years by switching with friends of mine and looking at signals from transmitters at all differant directions. There was no clear winner on all stations.

492. EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-11 23:29:58 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <8am300l3ad5ae7m3967og6t8a2hoacoa3f@4ax.com>
Source record: 102064

Happy New Year to you, too, Rick.

To anyone who believes the W5QJR EH concept is valid.

I just now received a request from Rick Lutzinger, KD6ZR, asking for my opinion on the validity of the EH concept W5QJR touts as his invention in his website at www.eh-antenna.com.

I went back and reviewed the posts on this thread posted during the last week of September 2003. Surprisingly, I didn't find anyone who disagreed with the concept. All I found there were disgreements with the claims for gain and realistic claims that this antenna could not even radiate as well as a conventional antenna. With this I agree.

The following text contains my reply to Rick:

Hi Rick,

I didn't have the opportunity to refer to Hart's fiasco until day before yesterday. He appears to still be in the business of publishing proofs of his limited knowledge of antenna and transmission line principles. Unfortunately, he appears to believe he's found something new in his 'EH' concept. On the contrary, 'his' antenna still performs as a Hertz, and his limited knowledge has misled him believe he has something different. So let's examine the situation.

Let's begin with a traditional resonant 1/4 wave vertical antenna over perfect ground fed with a 50-ohm coax matched to a source delivering all of its available power--signifying a conjugate match. Now let's add some inductive reactance between the coax and the antenna. There is no longer a conjugate match, the current lags the voltage, the power factor is no longer 100%, and the delivery of power is reduced proportionately. If we continue to increase the inductance until the current lags voltage by 90 degrees the power factor is zero, because cos 90 = 0. In this case the only power delivered by the source is that dissipated in the inherent loss of the inductance. The reactive power contained in the inductance is reflected back to the source resulting in a mismatch that prevents any further delivery of power other than that required to supply the power dissipated in the loss resistance of the inductance. In this condition no power will be delivered to the antenna.

However, if a capacitor is inserted in series with the inductor having the same but negative value of reactance as the inductor, we know that the total reactance now is zero, the conjugate match is restored, and the power delivery returns to normal.

On the other hand, Hart is applying the 90-degree phase lag to a very short antenna, whose input impedance is capacitive. As the series inductance is increased to where its reactance equals the negative reactance of the antenna capacitance, we have the conventional loading and matching of an antenna that is shorter than that of resonance.

Now if Hart is able to obtain an input to the antenna that approaches an impedance match allowing power to be delivered into the antenna, the capacitive reactance of his short antenna is simply compensating for the series inductance he believes produces current that lags voltage by 90 degrees. Tain't so. He is simply feeding a traditionally matched short Hertzian antenna. Further, voltage applied to Hart's 'EH' antenna results in antenna current flowing in exactly the same manner as in any antenna, and the E and H fields are formed and are related to each other in the same chronological manner as in any antenna. The natural laws of electromagnetic theory govern the field development and there is nothing anyone can do to violate those laws developed by James Clerk Maxwell in the 1800s--they have been proven immutable for more than 120 years.

So how come the respondents rave about how terrific their 'EH' antennas work? It's only because they fail to understand what is really happening--there is no change in the chronological relationship between the E and H fields, as Hart has misled them to believe, they are simply using a shortened loaded antenna in the traditional manner.

Hope you find this of value, Rick

73, Walt

PS--Please note in the References section of Reflections that an asterisk preceding a name indicates that that reference contains erroneous and misleading information. Now take a peek at my Reference 100. The material in that reference proves that that writer even then didn't didn't have a clue concerning transmission line theory. Note also the date: March 1969--things don't seem to change very much.

Walt Maxwell, W2DU

493. Re: Hillery Duff

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 02:19:56 UTC
From: casalao <laopdrwontlastforever@kingkhamtay-will-be-gone.by2005perhaps>
Message-ID: <gvnMb.58688$C87.40405@twister.socal.rr.com>
Source record: 102065
Cross-posted to: microsoft.public.win98.networking,de.comp.lang.javascript,comp.sys.hp.mpe,soc.culture.laos,rec.radio.amateur.antenna,comp.sys.ibm.pc.games.strategic,uk.local.east-anglia,de.comm.provider.metronet

Click on the attachment sent by this MOFO ME a few times and when your computer starts to act out in a weird way then you'll know that your computer has been 'necessary virused' out.

Don't trust me??? just try it out at your own expense.

-casalao

> Is there such a thing as a *necessary* virus?

494. Re: Cell Wave Query

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 04:13:55 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <400221c9_3@news1.prserv.net>
Source record: 102066
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Ed:

I have seen more than one of those antennas sabotaged with one or two
elements inverted. IIRC, the PD-340 had potted feed points, and it took a
careful examination to see the correct up/down orientation.
--
Crazy George
Remove N O and S P A M imbedded in return address
"Ed G." <Spectrumhog@_REMOVE_StarBand.net> wrote in message
news:Xns946BA3A8B1228Frog207Junocom@148.78.248.75...
>
> >
> > ***Thank you Ron. Since my initial message and responses here on the
> > newsgroup, coupled with "homework" we find that Celwave no longer
> > makes the 4 el vert dipole for the 2 meter spectrum. Nor do they make
> > replacement harnesses. Suspect drop in sales is the primary reason,
> > but not certain.
>
> That's disgusting! I didn't believe you so went looking myself, and
> found you were right. Phelps Dodge used to cater nicely to hams. When
> they became Celwave, they still gave us a discount. Now that they've gone
> international as RFS Celwave, they don't seem to give a hoot. Oh well,
> DB Products is just as good.
>
> >
> > Looking seriously at Decibel's compatible antenna. We are however,
> > going to open up the Celwave, remove and inspect the harness and
> > if possible determine what went wrong. Possibility that there could
> > be damage from lightning which would be covered by our insurance
> > policy.
>
> We had a nice Celwave PD 340-3 that never did work right. Antenna swr
> measured OK, but when we swapped the antenna out with just about any other
> antenna, it appeared that the Celwave was about unity gain. Could not
> measure any opens or shorts in the harness, but obviously something was
> wrong. Our club let the antenna sit around and warranty expire so we
> never did find the probem. A cheapie 3dB omni by Antenna Specialists
> seemed to do well enough for us. ... sigh ....
>
>
>
> Ed WB6SAT

495. Re: Hillery Duff

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 05:12:08 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40022CA8.5185FE98@cwis.net>
Source record: 102067

casalao,
> Don't trust me??? just try it out at your own expense.
>
> -casalao

Why should I? And cross posting this garbage certainly
doesn't help anyone else 'trust' you either.
'Doc

496. Re: MMANA question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 12:29:23 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0401120429.4fb0fc6e@posting.google.com>
Source record: 102068

Eskay <sieb_kNOS@PAMyahoo.ca> wrote in message
news:<19le9ttirqrr2.13i2en5xn6r1y.dlg@40tude.net>...
> On Sun, 11 Jan 2004 11:21:39 +0000 (UTC), Joe McElvenney wrote:
>
> > Hi,
> >
> > With JE3HHT's MMANA antenna modelling application, does
> > anybody know how to redirect the .ini file from the desktop
> > to some other directory. I'm using XP Home.
> >
> >
> > TIA - Joe, G3LLV
>
> Joe,,There is a Yahoo newsgroup on MMANA.They may be able to help..
> I have played off and on with the program but cannot help otherwise.
> 73 and success de VE3JUA.

My MMANA.ini file is located in the MMANA 'home' directory.
I would suggest to place it there and see if things are still working.

Success,
Arie.

497. Re: MMANA question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 14:49:09 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000024.00261139@btinternet.com>
Source record: 101969

Arie,

Thanks for your suggestion. I have cured my problem by uninstalling and then reinstalling the application and by not opting for a desktop icon on startup. Subsequently I 'sent' one to the desktop and all is now well.

I don't know much about Windows but believe that if an application cannot find its .ini file, it may then create one. With my installation of MMANA it was doing just that but placing it on the desktop which was no big deal, just a little untidy. Incidently, the one already in the home directory didn't changed even after several simulations as normally the ANT and FILE1,2,... entries do so to reflect what was tried last.

Thanks once again.

73 de Joe, G3LLV

498. Re: Outbacker plus spring?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 14:51:35 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40015d82_6@newsfeed.slurp.net>
Source record: 101970

The Outbacker was originally marketed as a mobile antenna that would survive a beating in the Outback of Australia. It is not a particularly good peformer as an antenna (they normally test somewhere below a hustler), but they will survive and function. Adding a spring will only cause you tuning problems...

- KI6PR
El Rancho R.F., CA

"Bob Schmidt" wrote
> I am mounting an Outbacker on the rear hatch (side) of my Grand
> Cherokee using the Diamond K400 trunk lip mount. I have a Hustler
> spring I was going to us on it, but wonder what opinions are about how
> necessary that is?
>
> TNX
>
> Bob, WA9JDR

499. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 15:54:48 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <K9WdnZb8OYjlXp_d4p2dnA@comcast.com>
Source record: 101971

Igor,

If all else fails, try this: As close to the phone as possible, put a ~56 Ohm resistor in series with each side of the telephone line. Then connect a .01 ufd 300V capacitor across the line on the telephone side of the resistors. The capacitor has to be high voltage, because during ringing, the voltage can be around 200 Volts.

Tam/WB2TT
"Igor V. Lapko" <ur5eoa@qsl.net> wrote in message
news:btsa39$1qgt$1@pandora.alkar.net...
> Hello dear all !
>
>
>
> I am using R-7000 vertical located on the roof of 9-store building.
>
> I was happy to notice the absence of any QRM for both radio and TV
broadcasting with my new 1 KW amplifier.
>
>
>
> But there is the only problem with neighbor from the last floor - he can
hear some SSB transmission in his phone and
>
> It slows down or even breaks the dial up connection to Internet.
>
>
>
> Are there any links for ready or homebrew RF filter for "last mile" of
phone line?
>
>
>
> Any suggestion for this case?
>
>
>
> Is it possible to ovecome this problem at all ?
>
>
>
> Regards,
>
> 73 de UR5EOA

>
> Igor
>
>
>
>

500. Re: Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 15:57:55 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <H9CdnSgOrMqNWZ_dRVn-gQ@comcast.com>
Source record: 101972

David,

It would be simpler to swith to an antenna that provides a DC path, than to build an RF driven detector.

Tam/WB2TT
"David Huisman" <dhuisman@bigpond.net.au> wrote in message news:Zd9Mb.5914$Wa.4378@news-server.bigpond.net.au...
> I am unable to use DC continuity. Even if I had a termination at the antenna
> base , this would only indicate broken cable, but not a cut antenna. The DC
> path would need to be to the tip of the antenna.
>
> I have some 10-bit analog inputs available for monitoring and can resolve
> down to a couple of mV.
>
> Any other ideas ?
>
> Thanks
>
> --
>
> Kind Regards
>
> David Huisman "Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> news:OaednU1rp_5yOZ3dRVn-ug@comcast.com...
> > David,
> >
> > If your antenna has DC continuity, put DC on the feedline through an RF
> > choke and resistor. Do it like this: DC voltage to resistor to RF choke to
> > center conductor of coax. Red LED from junction of resistor and RF choke
> to
> > shield of coax. The red LED will come on when the path is broken. If the
> > antenna normally does not provide a path, connect anothe RF choke at the
> > antenna, in such a way that whoever steals the antenna also takes the RF
> > choke. You want the RF chokes to be PARALLEL resonant somewhere just above
> > the operating frequency.
> >
> > Tam/WB2TT
> > "David Huisman" <dhuisman@bigpond.net.au> wrote in message
> > news:9u%Lb.4887$Wa.2081@news-server.bigpond.net.au...
> > > Hi,

> > >
> > > I am looking for some ideas for a low cost circuit to detect if an
> antenna
> > > has been broken or removed
> > > from a 10mW transmitter.
> > >
> > > Initial thoughts are to measure SWR but I need a small, low cost
circuit
> I
> > > can place between PCB Antenna connector and the antenna.
> > >
> > > Thanks in advance for any assistance
> > >
> > > Kind Regards
> > >
> > > David Huisman
> > >
> > >
> >
> >
>
>

501. Test only. No message

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 15:58:16 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <btug9vnlj1@newshost.mot.com>
Source record: 101973

Nope. Notta'

--
Steve N, K,9|d, c. i

502. Re: Hillery Duff

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 16:25:10 UTC
From: Blonks <nobody@nowhere.com>
Message-ID: <pii500dvsaiurlevnm5bb1qk9foafnl7uk@4ax.com>
Source record: 101974
Cross-posted to: microsoft.public.win98.networking,de.comp.lang.javascript,comp.sys.hp.mpe,soc.culture.laos,rec.radio.amateur.antenna,comp.sys.ibm.pc.games.strategic,uk.local.east-anglia,de.comm.provider.metronet

On Sun, 11 Jan 2004 21:21:03 +0000 (UTC), "The Devil's Advocaat"
<thedevilsadvocaat@hotmail.com> wrote:

>>"casalao" <laopdrwontlastforever@kingkhamtay-will-be-gone.by2005perhaps>
>wrote in message news:52iMb.63873$Vs3.36321@twister.socal.rr.com...
>>SERIOUS WARNING TO ALL SCL,
>>
>>this mofo ME has been posting his stuff all over the newsgroups. People!!!
>don't be fooled by this message and the attachment.
>>
>>You click on the attachment at your own risk. So don't click on
>it...otherwise you will add unecessary virus to your computer.
>>
>>-casalao
>
>Is there such a thing as a *necessary* virus?
>

Windows ? ;-)

503. Re: Are GAM SS-2 VHF 35" whip marine antenna 6db performance claims...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 17:04:29 UTC
From: richardharrison@webtv.net
Message-ID: <5995-4002D39D-84@storefull-3253.bay.webtv.net>
Source record: 101975

Ralph Mowery wrote:
"The 1/4 wave vertical at about 16 or 20 inches will tend to put much of the signal towards the sky like a round ball would look laying in the water."

The mental image Ralph`s statement creates in my mind is mistaken. The 1/4-wave vertical antenna over a reflecting plane has a pronounced null at its tip. The pattern is no hemisphere.

See Fig 3 on page 3-5 of the 19th edition of the ARRL Antenna Book for the vertical radiation pattern of a 1/4-wave vertical antenna over earth. Over a ground plane antenna at any elevation, the pattern is similar, that is, there is a pronounced null at its tip.

Best regards, Richard Harrison, KB5WZI

504. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 17:44:05 UTC
From: Duane Allen <computeruser@sprintmail.com>
Message-ID: <4002E1B9.5030304@sprintmail.com>
Source record: 101976

At the 2003 ARRL Southwestern Division Conference, Steve Jensen, W6RHM, gave a very informative presentation titled "EMC for the Ham Shack". Steve's paper described how RF could easily be induced into a shack's AC power line. He also provided a relatively simple easy solution.

Steve suggested using Fair-rite 5943003801 cores. These are relatively large cores. An AC power plug will fit through them. One core should be on the coax line near the antenna. Another core should be placed on the AC power cord of your power supply. This should minimize inducing RF into the building's AC system.

A supplier of Fair-rite cores is Loadstone Pacific http://www.loadstonepacific.com/. The price per core is under $5. They do have a $50 minimum per order.

Duane Allen, N6JPO

Igor V. Lapko wrote:

> I am using R-7000 vertical located on the roof of 9-store building.
> I was happy to notice the absence of any QRM for both radio and TV broadcasting with my new 1 KW amplifier.
> But there is the only problem with neighbor from the last floor - he can hear some SSB transmission in his phone and
> It slows down or even breaks the dial up connection to Internet.
> Are there any links for ready or homebrew RF filter for "last mile" of phone line?
> Any suggestion for this case?
> Is it possible to ovecome this problem at all ?
> Regards,
> 73 de UR5EOA
> Igor
>

505. Re: Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 18:06:34 UTC
From: k7itm@aol.com
Message-ID: <3200347.0401121006.74a34121@posting.google.com>
Source record: 101977

"David Huisman" <dhuisman@bigpond.net.au> wrote in message
news:<Zd9Mb.5914$Wa.4378@news-server.bigpond.net.au>...
> I am unable to use DC continuity. Even if I had a termination at the antenna
> base , this would only indicate broken cable, but not a cut antenna. The DC
> path would need to be to the tip of the antenna.
>
> I have some 10-bit analog inputs available for monitoring and can resolve
> down to a couple of mV.
>
> Any other ideas ?
>
> Thanks

You didn't mention the frequency, but monitoring the reflected power
should be no big deal. A 20dB directional coupler would waste only
100uW with a proper load connected, and even without resonant
enhancement of the reflected-port voltage give you enough to detect a
disconnected antenna. A coupler could be transformer based (a couple
small toroids) at lower frequencies or coupled lines (for example
microstrip, perhaps built into your PC board) at higher frequencies.

Cheers,
Tom

506. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 21:20:40 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <ej36009vmf2nb7aj17thukmhoi100vmft6@4ax.com>
Source record: 101978

On Sun, 11 Jan 2004 23:29:58 GMT, Walter Maxwell <w2du@iag.net> wrote:

>Happy New Year to you, too, Rick.
>
>To anyone who believes the W5QJR EH concept is valid.
>
>I just now received a request from Rick Lutzinger, KD6ZR, asking for my opinion
>on the validity of the EH concept W5QJR touts as his invention in his website at
>www.eh-antenna.com.
>
>I went back and reviewed the posts on this thread posted during the last week of
>September 2003. Surprisingly, I didn't find anyone who disagreed with the
>concept. All I found there were disgreements with the claims for gain and
>realistic claims that this antenna could not even radiate as well as a
>conventional antenna. With this I agree.
>
>The following text contains my reply to Rick:
>
>Hi Rick,
>
>I didn't have the opportunity to refer to Hart's fiasco until day before
>yesterday. He appears to still be in the business of publishing proofs of
>his limited knowledge of antenna and transmission line principles.
>Unfortunately, he appears to believe he's found something new in his 'EH'
>concept. On the contrary, 'his' antenna still performs as a Hertz, and his
>limited knowledge has misled him believe he has something different. So
>let's examine the situation.
>
>Let's begin with a traditional resonant 1/4 wave vertical antenna over
>perfect ground fed with a 50-ohm coax matched to a source delivering all of
>its available power--signifying a conjugate match. Now let's add some
>inductive reactance between the coax and the antenna. There is no longer a
>conjugate match, the current lags the voltage, the power factor is no longer
>100%, and the delivery of power is reduced proportionately. If we continue
>to increase the inductance until the current lags voltage by 90 degrees the
>power factor is zero, because cos 90 = 0. In this case the only power
>delivered by the source is that dissipated in the inherent loss of the
>inductance. The reactive power contained in the inductance is reflected back
>to the source resulting in a mismatch that prevents any further delivery of
>power other than that required to supply the power dissipated in the loss
>resistance of the inductance. In this condition no power will be delivered
>to the antenna.
>
>However, if a capacitor is inserted in series with the inductor having the

>same but negative value of reactance as the inductor, we know that the total
>reactance now is zero, the conjugate match is restored, and the power
>delivery returns to normal.
>
>On the other hand, Hart is applying the 90-degree phase lag to a very short
>antenna, whose input impedance is capacitive. As the series inductance is
>increased to where its reactance equals the negative reactance of the
>antenna capacitance, we have the conventional loading and matching of an
>antenna that is shorter than that of resonance.
>
>Now if Hart is able to obtain an input to the antenna that approaches an
>impedance match allowing power to be delivered into the antenna, the
>capacitive reactance of his short antenna is simply compensating for the
>series inductance he believes produces current that lags voltage by 90
>degrees. Tain't so. He is simply feeding a traditionally matched short
>Hertzian antenna. Further, voltage applied to Hart's 'EH' antenna results in
>antenna current flowing in exactly the same manner as in any antenna, and
>the E and H fields are formed and are related to each other in the same
>chronological manner as in any antenna. The natural laws of electromagnetic
>theory govern the field development and there is nothing anyone can do to
>violate those laws developed by James Clerk Maxwell in the 1800s--they have been
>proven immutable for more than 120 years.
>
>So how come the respondents rave about how terrific their 'EH' antennas
>work? It's only because they fail to understand what is really
>happening--there is no change in the chronological relationship between the E
>and H fields, as Hart has misled them to believe, they are simply using a
>shortened loaded antenna in the traditional manner.
>
>Hope you find this of value, Rick
>
>73, Walt
>
>PS--Please note in the References section of Reflections that an asterisk
>preceding a name indicates that that reference contains erroneous and
>misleading information. Now take a peek at my Reference 100. The material in
>that reference proves that that writer even then didn't didn't have a clue
>concerning transmission line theory. Note also the date: March 1969--things
>don't seem to change very much.
>
>Walt Maxwell, W2DU
>
>
I quote here an email response from Bill Ronay, KM4LS:

To: w2du@iag.net
Subject: EH Antenna...
Date: Jan 11, 2004 7:19 PM
Dear Walter:

Just read your forwarded email regarding Ted Hart, W5QJR, his discoveries and creations. Yours was a lengthy and, obviously, topically researched missive.

I might suggest you get in your automobile from down there near Stetson University, drive North on US 441 and don't stop until you arrive at Ted's home and workshop just north of Eatonton, Ga. also on US 441.

THEN, with all the knowledge and talent you have at your disposal, prove or disprove your claims. He has an EH currently in AM broadcast mode. There are also several ham versions available for your appraisal.

Regards,

Bill
KM4LS

W. R. "Bill" Ronay
2090 Shadow Lake Drive
Buckhead, GA 30625-2700

507. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 21:23:28 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <ku3600p14lsp58u86dd05g6c3mmqsg1gbd@4ax.com>
Source record: 101979

The following is my email reply to KM4LS:

Hello, Bill

Thanks for writing and for your concern regarding Ted's antenna concept.

Bill, I can only say how sorry I am that Ted has misconceived the principles of electromagnetism in believing that the chronology of the formation of the E and H fields as they develop along a transmission line or antenna can be changed by the voltage-current relationship appearing at the input terminals of an antenna. I know he and other amateurs are using antennas they believe are operating in the mode Ted calls EH, but it is up to Ted to prove that what he claims is so.

I'm sorry, but there is no way he can prove a concept that violates electromagnetic theory that has been proved true empirically for more than a century. Let him place voltage and current probes on a shortened resonant antenna with the 90-degree phase lag inductance inserted and feed a dual trace oscilloscope to see the relationship of the fields.

And another experiment. Have him adjust a 1/4 wl vertical over good ground to resonance with no phase lag inductor in the circuit and then measure the power delivered to the antenna. Then, without readjusting any transmitter tuning and loading controls, have him now insert the 90-degree phase lag circuit and remeasure the power delivered. He will be amazed at the result.

If the 90-degree phase lag circuit will change the chronology of the formation of the E and H fields in the shortened antennas, as Ted claims, then it will also change the chronology of the fields in a full length resonant antenna. If he can prove that the field chronology also changes in the full length antenna I'll buy into his concept. The burden of proof is on Ted, not me. In my opinion, the phase lag Ted introduces, which he believes changes the time relationship of the fields, only compensates for the capacitive reactance in the shortened antenna, making it resonant, without any change in time relationship in the normal production of the E and H fields.

73,

Walt

508. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 21:32:26 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <pf46009habuqeh5gjbv48l83rhe9u26l8e@4ax.com>
Source record: 101980

Bill, KM4LS, forwarded my emial to him to Ted Hart, W5QJR. The following is Ted's response to me:

Hi Walter,

Bill sent me your note. Good to hear your view point on the EH Antenna. Sorry you have not moved your brain into this century. 100 Years ago man could not fly. If you read out web site you will find that our AM Broadcast antenna out performs a standard 1/4 wave AM Broadcast antenna. We also have commercial applications. Further, by direct comparison the EH Antenna outperforms wire antennas for Ham use.

I have proven the EH Antenna.

Best regards,

Ted

509. Australian version of "Taylor Space Miser 80m loop" (James Taylor W2OZH)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 22:22:55 UTC
From: ELLIS <prellis@pcug.org.au>
Message-ID: <newscache$66eerh$z9h$1@tomato.pcug.org.au>
Source record: 101981

Folks,

Have you heard about the "Taylor Space Miser 80m Loop"? It is a simple, elegant, and space-miserly 80m antenna that should be looked at by any Amateur Radio operator with a space or antenna visibility problem.

It is named after James Taylor W2OZH, and was published by him in ~1970.

It was re-published in Australian Electronics Monthly magazine in 1987 by Roger Harrison, a well-known Australian experimenter.

The Taylor Space Miser 80m Loop has had a revival in Canberra in the last few months due to Tony Bennett VK1TB who has built the design and experimented to get the design inside the pitched roof space of his town-house.

I have published the details of the 1987 article, including images of the article and Tony Bennet's redesign criteria, on my web site.
See http://www.pcug.org.au/~prellis/vk1kep.html

Best wishes,
Peter
VK1KEP

510. Re: Australian version of "Taylor Space Miser 80m loop" (James Taylor W2OZH)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 22:46:47 UTC
From: dplatt@radagast.org
Message-ID: <10068un3b3314fe@corp.supernews.com>
Source record: 101982

In article <newscache$66eerh$z9h$1@tomato.pcug.org.au>,
ELLIS <prellis@pcug.org.au> wrote:

>I have published the details of the 1987 article, including images of the
>article and Tony Bennet's redesign criteria, on my web site.
>See http://www.pcug.org.au/~prellis/vk1kep.html

That URL brings up an "Oops! We can't find that document" error page,
with a sketch obviously intended to portray an amateur whose attempt
to complete his QRP DXCC was just stepped upon by a Legal Limit ragchew.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

511. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 22:49:40 UTC
From: kashe@rahul.net
Message-ID: <k296005lafsvlc646q8ui9bmrnav6adpph@4ax.com>
Source record: 101983

On Mon, 12 Jan 2004 17:44:05 GMT, Duane Allen
<computeruser@sprintmail.com> wrote:
>
>A supplier of Fair-rite cores is Loadstone Pacific
>http://www.loadstonepacific.com/. The price per core is under $5. They
>do have a $50 minimum per order.

Try http://www.lodestonepacific.com/ -- the one supplied does
not resolve.

512. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 23:20:52 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40032BD4.B8950BCC@uci.edu>
Source record: 101985

Yuri Blanarovich wrote:
>
> >100 Years ago man could not fly.
>
> And now he can?

:-)

More importantly, 100 years ago airplanes could not fly.

For a humorous read, goto:

http://www.eh-antenna.com/documents/EH_ANTENNA_DEFINITION.pdf

73, jk

513. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-12 23:31:56 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040112183156.26118.00002985@mb-m06.aol.com>
Source record: 101984

>100 Years ago man could not fly.

And now he can? Using EH antenna as a broomstick?
Far out Dude!

Quickly get the patent, print marketing pamflets and sell it to developing
nations. (send me the royalties)

BUm

514. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 00:10:39 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4003377F.FF2CD794@uci.edu>
Source record: 101988

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > Yuri Blanarovich wrote:
> >
> >>>100 Years ago man could not fly.
> >>
> >>And now he can?
> >
> > More importantly, 100 years ago airplanes could not fly.
>
> How far back in time do hot-air balloons go?

It isn't possible for balloons to go back in time. :-)

73, Jim AC6XG

515. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 00:22:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40033af2$1_7@corp.newsgroups.com>
Source record: 101986

Jim Kelley wrote:
> Yuri Blanarovich wrote:
>
>>>100 Years ago man could not fly.
>>
>>And now he can?
>
> More importantly, 100 years ago airplanes could not fly.

How far back in time do hot-air balloons go?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

516. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 00:26:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cje6009po5832p0a5h993baulls71kiciv@4ax.com>
Source record: 101987

On Mon, 12 Jan 2004 21:32:26 GMT, Walter Maxwell <w2du@iag.net> wrote:

>
>I have proven the EH Antenna.
>
>Best regards,
>
>Ted

:-P

73's
Richard Clark, KB7QHC

517. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 00:56:11 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <ufg6009tu3h74hiblf8hflcclh179b9igj@4ax.com>
Source record: 101989

On Mon, 12 Jan 2004 22:49:40 GMT, kashe@rahul.net wrote:

>On Mon, 12 Jan 2004 17:44:05 GMT, Duane Allen
><computeruser@sprintmail.com> wrote:
>>
>>A supplier of Fair-rite cores is Loadstone Pacific
>>http://www.loadstonepacific.com/. The price per core is under $5. They
>>do have a $50 minimum per order.
>
> Try http://www.lodestonepacific.com/ -- the one supplied does
>not resolve.

Spelling is so important.

Lodestone would make more sense when discussing magnets.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

518. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 00:58:22 UTC
From: dplatt@radagast.org
Message-ID: <1006gle4bmapua8@corp.supernews.com>
Source record: 101990

In article <4003377F.FF2CD794@uci.edu>, Jim Kelley <jwkelley@uci.edu> wrote:

>> > More importantly, 100 years ago airplanes could not fly.
>>
>> How far back in time do hot-air balloons go?
>
>It isn't possible for balloons to go back in time. :-)

That depends on whether you happen to have a very long, incredibly
massive cylinder, rotating at near-relativistic speeds, somewhere
downwind of your launch point.

Most of us don't - extreme tidal effects aren't one of the things
exempted by PRB-1.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

519. Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 01:05:13 UTC
From: Marvin Rosen <puns@verizon.net>
Message-ID: <dvHMb.965$4P6.285@nwrddc01.gnilink.net>
Source record: 101991

Is there such a thing as a 2 mtr omnidirectional
vertical beam antenna?

520. Re: Australian version of "Taylor Space Miser 80m loop" (James Taylor W2OZH)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 01:19:02 UTC
From: Bob Schreibmaier <k3ph@ptd.net>
Message-ID: <ZEidnWyIL70a2p7dUSdV9g@ptd.net>
Source record: 101992

```
In article <10068un3b3314fe@corp.supernews.com>, dplatt@radagast.org says...
>
>
>In article <newscache$66eerh$z9h$1@tomato.pcug.org.au>,
>ELLIS <prellis@pcug.org.au> wrote:
>
>>I have published the details of the 1987 article, including images of the
>>article and Tony Bennet's redesign criteria, on my web site.
>>See http://www.pcug.org.au/~prellis/vk1kep.html
>
>That URL brings up an "Oops! We can't find that document" error page,
>with a sketch obviously intended to portray an amateur whose attempt
>to complete his QRP DXCC was just stepped upon by a Legal Limit ragchew.

Try this one. Seems to work for me:

http://www.pcug.org.au/~prellis/amateur/space-miser-80m.html

--
+---------------------------------------------+
| Bob Schreibmaier K3PH | E-mail: k3ph@ptd.net |
| Kresgeville, PA 18333 | http://www.dxis.org |
+---------------------------------------------+
```

521. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 01:30:35 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40034adb$1_7@corp.newsgroups.com>
Source record: 101993

Marvin Rosen wrote:
> Is there such a thing as a 2 mtr omnidirectional
> vertical beam antenna?

2m antennas that focus radiation in the horizontal are not
usually called beams. They are called phased arrays and some
are very high gain and omnidirectional.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

522. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 01:35:23 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40034B5B.92702D88@cwis.net>
Source record: 101994

Marvin,
Depends on what you mean by 'beam'. If you mean a yagi or
quad
type directional antenna, no. If you mean an omnidirectional
antenna
with gain, yes. But if it's an omnidirectional antenna with
gain,
it isn't a 'beam', in the common sense or use of the word, is
it...
'Doc

523. Antenna advice - "Plastic Car"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 02:31:31 UTC
From: John <res0b06f@verizon.net>
Message-ID: <7MIMb.1605$4I3.568@nwrddc02.gnilink.net>
Source record: 101995

Greetings all
I have a 87 Fiero GT - V6 Mid-Engined Plastic car. I have been considering using an "On-The-Glass" MultiBand antenna (2M / 440Mhz) on this car. Has anyone done this? what kind of results? any tricks to improving signal? My concern is the lack of body sheet metal... There are frame parts and a V6 engine under the back deck, but I don't know if that's enough with one of these antennas.. There is a approx... 10" square piece of metal plate under the back deck that a mag mount could adhere to, but the car has a new high quality paint job on it and I don't want to mount anything on the body.... There are no bumbers to mount to, Their all shrouded in moulded plastic....

I would be grateful for your advice..
Thanks
John
KD4RN

524. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 02:42:52 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <1006mp9h0f23d9d@corp.supernews.com>
Source record: 101996

Igor ... after watching some of the replies ..

Igor V. Lapko wrote:

>Hello dear all !
>
>
>
>I am using R-7000 vertical located on the roof of 9-store building.
>
>I was happy to notice the absence of any QRM for both radio and TV broadcasting with my
new 1 KW amplifier.
>
>
>
>But there is the only problem with neighbor from the last floor - he can hear some SSB
transmission in his phone and
>
>It slows down or even breaks the dial up connection to Internet.
>
>
>
>Are there any links for ready or homebrew RF filter for "last mile" of phone line?
>
>
>
>Any suggestion for this case?
>
>
>
>Is it possible to ovecome this problem at all ?
>
>
>
>Regards,
>
>73 de UR5EOA
>
>Igor
>

The simplest cheapest place in the USA I have found to buy these little
ferrite core gadgets you can loop coax and speaker leads and power leads
around .. is at Radio Shack. You can buy packages of several for a few
USD. They have a little plastic holder that splits them apart so that

you can open the ring core and wrape a line around them without cutting anything. I've been using them all around the place for years on phone lines, speaker lines. coax lines to country TV andtenna problems and so on. No, they are not good enough for everything. But they sure make it easy to test things for improvements and help you figure out where a problem may be solved.

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

525. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 03:33:58 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040112223358.22983.00001548@mb-m27.aol.com>
Source record: 101997

>> Yuri Blanarovich wrote:
>>
>>>>100 Years ago man could not fly.
>>>
>>>And now he can?
>>
>> More importantly, 100 years ago airplanes could not fly.
>
>How far back in time do hot-air balloons go?
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

We are talking here about man flying, like flapping his wings or hands. Heck I still can't fly, or maybe I can fly, but the landing is problematic. Any idiot can fly in the baloon or airplane or EH? broomstick.

Now what about woo-mans? I see them frequently flying through shopping centers and with no wings.

The quote of the day from EH "description":
"The voltage and current applied to a Hertz antenna are in phase, therefore the E and H fields are not in phase,
thus radiation does not occur until a great distance from the antenna."

Wasaaap in between? Unplowed fields?
Far out Dudes and Dudettes!

I fear what would happen if he added one of the W8JI "equal current" coils that could stretch the current way out there and just keep adding fields EH?
Scaaary!

BUm

526. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 04:38:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <4003765F.4020706@eznec.com>
Source record: 101998

I really begrudge the necessity of posting once more on this newsgroup, and particularly on this thread. However, I'm dismayed and disgusted by postings being made by Yuri and Cecil in other forums in which they're claiming that measurements I made agree with theories and predictions they allegedly made, and that my measurements therefore validate their theories. (A quick scan of this thread shows that they even made the false claims here, after I had quit posting.)

One of the postings is the following, made by Yuri on the eHam TowerTalk group, Nov. 21, topic "Trap Resonance":

"Why don't you mention what W5DXP came up as explanation for Tom's errors, why don't you mention what W7EL measured and that it was what I predicted based on available information and was right on - the 5% difference for the base loading coil?"

and this one, posted by Yuri on the EHam.net forum topic "Re: Current in Antenna Loading Coils" on Jan. 7:

"I will leave it here, as the rest of it. W7EL, author of EZNEC measured toroid coil and found that it HAS different current at its ends, roughly proportional to the part of antenna that it replaces."

and this one, posted by Cecil on that same group on Jan. 12:

"Roy's data clearly illustrates the phase shift through the coil. ARCCOS(Iout/Iin) gives an estimate of the phase shift (assuming forward current and reflected current are of equal magnitude). In Roy's experiment, Iout/Iin was about 0.95. ARCCOS(0.95) equals 18 degrees, an approximation for the phase shift through the coil."

As you'll see below (or by looking up the original thread), the first of my two measurements, for an antenna shortened an equivalent of about 18 degrees, resulted in 3% current attenuation across the coil (not 5%), and zero phase shift (not 18 degrees). The second test, where the antenna was shortened more than 33 degrees, measured 5% current reduction and no phase shift. The method used in the above quote predicts more than 16% amplitude reduction and 33 degrees of phase shift for the second test. There's no way my data "clearly illustrates" Cecil's explanation. To say that it does is a pure fabrication.

I feel compelled to respond to these fabrications, and put the record straight. I'll do it here, since this is where my measurements were originally posted.

I made two sets of measurements of the current into and out of a toroidal inductor at the base of a vertical antenna. The details of the measurement method and the measurement results were posted here, on this newsgroup, on this thread. Pictures of the setup were posted on my web site, with a link posted here.

Before I posted each set of measurements, I asked for predictions of the results, so that alternate theories could be tested. (I was criticized for doing this -- it seems that the preferred method of testing a theory is to look at the results first, then adjust the theory to fit.) Yuri made a prediction (actually, two different ones) for the first set of measurements that didn't accurately predict the results. When I calculated the predicted result for the second set of measurements using the same method he had used for the first prediction, he retracted any claim that the method would be valid. (Exact quotes are below.) He didn't make any prediction at all for the second set of measurements.

Cecil made a number of vague predictions which he later contradicted or retracted. At the time the second set of measurements were posted, he had made no prediction at all.

Perhaps Yuri and Cecil have, after the measurements were posted, developed theories to explain the results. As of the time the measurements were posted, they hadn't. I highly recommend that anyone considering their alternative theories to find where they have calculated the results which agree with my measurements (particularly the second one, which was designed to produce a testable difference), and how they derived the equations used for the calculation.

Following is a summary of some of the exchanges between Yuri and me on this thread last November. The entire thread, "Re: Current in antenna loading coils controversy" and variants, is available for viewing at groups.google.com.

------ Summary ------

Here's what really happened. The following quotes are directly from the google archives of the rraa thread.

I made two sets of measurements. The first had the inductor connected at the base of a 33 foot vertical. But the vertical was mounted about 1/4" from a four foot pipe, which reduced the base reactance.

Here, I was asking for predictions for my FIRST measurement -- the one with the vertical mounted on the pipe.

Yuri posted on Nov. 9:

"In that case,
If the feedpoint current was at 0 deg of the radiator length, and coil replaces 18 deg of wire, the cos 18 deg = 0.951 which should make difference, drop in the coil current 5% (or half, 2.5 deg?)
Providing current maximum is exactly at the bottom end of the coil."

and later on Nov. 9:

">Incidentally, I take it that your prediction for the setup I did measure
>includes an 18 degree phase shift of current from input to output of the
>inductor?
>
>Roy Lewallen, W7EL
>

Yes, I used Cecil estimate/calculation and taking
cos 18 = 0.951056516 which is 4.8943483%"

So now we have his prediction, using the "cosine rule". The measurement I made showed about 3% current reduction from input to output, but with about 2% (the same amount within measurement error) also occurring when the antenna was replaced by a series resistor and capacitor -- that is, no antenna at all. So the 5% prediction was wrong. His prediction of 18 degrees phase shift, which wasn't present, was also wrong. When asked for the justification for the "cosine rule", he never offered any, so its origin remains obscure.

However, I saw that the value was too small to be convincing, which is why I devised the second test. The second test used a more ideal antenna, with more of the antenna being "replaced" by the inductor. The "cosine rule" would predict more than 16% reduction, and more than 33 degrees of phase shift.

Before I gave the results from the second measurement, I posted the predictions which had been made, as I understood them. Since Yuri had invoked the "cosine rule" for the first test, I naturally assumed it would also apply to the second. (This is simply applying the equation Yuri used in his Nov. 9 posting to the second antenna setup. It's also the equation now being used by Cecil, as shown in his quote from the eHam group.) So in my posting I said:

(Quote from my posting on Nov. 11):

"**Yuri's method predicts a reduction of output current magnitude of 16.5% and a phase shift of 33 degrees."

to which Yuri responded, also on Nov. 11:

"It is not my theory. My argument with W8JI and his followers: is the current in typical loading coil in quarter wave radiator same at both ends or does it drop with distance from the feedpoint. I have made temperature observations, W9UCW measured the difference, W5DXP provided some explanation. Based on Cecils analysis of data you provided, and on my understanding of the phenomena I guestimated drop in current in your setup. No theory, no mathematical procedure (yet) just attempt (using degrees replaced by coil in a radiator) at explanation of what is happening. I will measure things myself, try to verify previous measurements and then come up with conclusions and "theory". So far Cecils (and ON4UN book) theory seems to be closest to the truth. . . "

So now, Yuri has disclaimed the "cosine rule". /He made no other prediction of the results of the second test./

In summary, Yuri first stated that the "cosine rule" can be used to calculate the current drop. That would have predicted over 16% current reduction in the second test. Then he retracted his claim that that theory would work, before the results from the second test were posted, and never made any other prediction. He never predicted the 5% result which was measured, as he's now claiming.

And if you can find a numerical prediction anywhere in the thread which Cecil made and stayed with, my hat's off to you. $100 goes to the first person who can point to any prediction made by either Yuri or Cecil before the second measurement results were posted that predicted second measurement results of 5% magnitude and zero phase shift. (In the case of Cecil, this would have to be a prediction that wasn't later modified or retracted before the second set of results were posted.)

My measurement results are consistent with the fact that the currents into and out of a physically small inductor are equal. The small magnitude difference I measured can be explained by stray capacitance on the order of 7 pF from the output to ground and/or the probe -- not an unreasonable amount to expect. In no way do my measurements support the odd theories being proposed by Cecil and Yuri, and any statement that they do is completely false.

Roy Lewallen, W7EL

527. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 05:17:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40037fed_6@corp.newsgroups.com>
Source record: 101999

Roy Lewallen wrote:
> The second test, where the
> antenna was shortened more than 33 degrees, measured 5% current
> reduction and no phase shift. There's no way my data "clearly
> illustrates" Cecil's explanation.

Roy, you obviously don't understand what that phase shift is all about.
It is NOT a phase shift in the net current. It is a calculated phase shift
in the forward current and reflected current components through the coil
based on the net current ratios. And your data indeed does "clearly
illustrate" my explanation. Please stop making false statements about what
I said. You did NOT measure the phase angle about which I was talking.
You apparently don't even know what I was talking about.

The forward current into the coil and the reflected current out of the
coil can be assumed to be in phase at resonance. So we have Ifwd at 0 deg
superposed with Iref at 0 deg to obtain the net current into the coil.
The forward current out of the coil lags the forward current into the
coil by some phase angle (PA). The reflected current out of the coil
lags the reflected current into the coil by the same phase angle (PA).
PA is the phase angle I was talking about. You did NOT measure it!

The net current into the coil is Ifwd at 0 deg plus Iref at 0 deg.

The net current out of the coil is Ifwd at -PA plus Iref at +PA

Assuming the net current distribution is a cosine, the phase angle
by which the forward current and reflected current is shifted is
ArcCos(Iout/Iin). For a 5% current reduction that would be ArcCos(0.95)
= ~18 degrees. You did NOT even attempt to measure that phase angle.
There is almost no phase shift in the net current through the coil
which is exactly what you measured.

> I feel compelled to respond to these fabrications, and put the record
> straight. I'll do it here, since this is where my measurements were
> originally posted.

How can you possibly set the record straight when you didn't even
comprehend what I was saying? Here's what I have said:

The net current is the sum of the forward current and reflected current.
Both the forward current and reflected current undergo a phase shift
through the coil. Assuming the forward current and reflected current
are in phase on one side of the coil, that phase shift can be calculated
using ArcCos(Iout/Iin) where those currents are the measured net currents.

A 5% reduction in current is equivalent to an 18 degree phase shift.

A 3% reduction in current is equivalent to a 14 degree phase shift.

Your data matches my explanation exactly! The only data that doesn't match my explanation is Tom's toroidal coil which he asserts doesn't have any delay through it at all. I suspect his currents are of equal magnitude and opposite phase thus indicating a delay but confusing his magnitude data.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

528. Re: Outbacker plus spring?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 05:22:08 UTC
From: Dusty <dusty@nowhere.com>
Message-ID: <4003807f@news.comindico.com.au>
Source record: 102000

I've got a spring on my home brew job thats mounted on the bullbar but
it travels many 1000's of K's on rough dirt roads. It's not a bad idea to
dampen the vibration.

> "Bob Schmidt" wrote
> > I am mounting an Outbacker on the rear hatch (side) of my Grand
> > Cherokee using the Diamond K400 trunk lip mount. I have a Hustler
> > spring I was going to us on it, but wonder what opinions are about how
> > necessary that is?
> >
> > TNX
> >
> > Bob, WA9JDR
>
>

529. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 05:26:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40038231_6@corp.newsgroups.com>
Source record: 102001

Roy Lewallen wrote:
> $100 goes to the first
> person who can point to any prediction made by either Yuri or Cecil
> before the second measurement results were posted that predicted second
> measurement results of 5% magnitude and zero phase shift.

Send it to my QSL.NET address. Yuri predicted the 18 degree phase shift which is calculated from the 5% magnitude, ArcCos(Iout/Iin). The phase shift measurement that you made is irrelevant and not the phase shift that was being discussed at the time. The net current phase shift that you measured can always be assumed to be close to zero since the forward current and reflected current are approximately equal and rotating in opposite phase directions. I explained all this and posted the information to my web page many weeks ago yet you still don't understand it.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

530. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 06:01:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10072e21j14qc67@corp.supernews.com>
Source record: 102002

Cecil,

I've learned that there is no point in arguing with you.

When confronted, you dodge, reverse your position, twist words, misquote, and, if all fails, insult. (An experienced reader of this group will recognize that this statement isn't itself an insult, but a statement of fact.)

My statements stand. Let the readers review what you and I have written and decide.

Your claim that my measurements support your odd theory is entirely false, and you are irresponsible if not delusional in claiming they do.

I meant the $100 offer. I'll have a crisp bill in the mail to the first person that shows that you correctly predicted the results of my tests.

Now, I'm finished wasting my time and energy on you.

Roy Lewallen, W7EL

531. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 06:38:16 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400392f9_2@corp.newsgroups.com>
Source record: 102003

Roy Lewallen wrote:
> Your claim that my measurements support your odd theory is entirely
> false, and you are irresponsible if not delusional in claiming they do.

Can Gurus just lie and get away with it? Your measurements support my "odd theory" 100%. With a current ratio of 0.95 to 1.0, ArcCos(0.95) = ~18 degrees of phase shift through the coil which is what I predicted. You didn't measure the correct phase shift. The one I asked you to measure was the phase shift through the coil *WITH NO REFLECTIONS PRESENT*. My "odd theory", residing on my web page for weeks now, clearly predicts that the net current will have the same phase angle at both ends of the coil. Your measurements of that phase angle proves that I was right. Based on my "odd theory", I predicted a 5% reduction in the current. Your measurements proves that I was right given the accuracy of your measurements.

My "odd theory" is nothing but standard accepted physics. The net current equals the superposed sum of the forward current and reflected current according to Kraus and Balanis. It's hard to believe that you disagree.

> I meant the $100 offer. I'll have a crisp bill in the mail to the first
> person that shows that you correctly predicted the results of my tests.

I predicted the 0.95 to 1.0 ratio. Yuri posted it. The calculated phase shift through the coil is 18 degrees. Pay up.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

532. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 06:48:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10075583gbror5f@corp.supernews.com>
Source record: 102004

No, Cecil, I'll give the money to anyone who _shows_ that Yuri made the correct prediction, not someone who just says he did.

The result of the first test (about 18 degrees equivalent antenna "replacement") was 3.1% reduction, with no phase shift, output to input. For that test, Yuri predicted 5% or 2.5% with 18 degrees of phase shift. See the direct quotes I just posted for evidence. For the second test, with 33 degrees of a more ideal antenna "replaced", Yuri made no prediction, and the result was 5.4% and no phase shift. The "theory" you and Yuri are fond of, and which you thoughtfully again show in your posting, predicts 16+%.

Do you really think we're dumb enough not to notice you're using the "replacement" length from the first test to calculate the result from the second test, then crying "Aha!"? That you're completely ignoring the results from the second test and what your favorite equation would predict?

Only a fool or an idiot would try to engage in a rational discussion with you, with your creative distortion and juggling of figures to suit your purposes. So I'm afraid I'm a bit of both -- but I'm trying to improve.

Present evidence (you do understand the concept, don't you?) that Yuri -- or you -- correctly predicted the result of either test before the test result was posted, by giving the date and quote, and the money's yours.

I'll be out of here unless the evidence is presented. I'm not holding my breath.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> $100 goes to the first person who can point to any prediction made by
>> either Yuri or Cecil before the second measurement results were posted
>> that predicted second measurement results of 5% magnitude and zero
>> phase shift.
>
>
> Send it to my QSL.NET address. Yuri predicted the 18 degree phase shift
> which is calculated from the 5% magnitude, ArcCos(Iout/Iin). The phase
> shift measurement that you made is irrelevant and not the phase shift
> that was being discussed at the time. The net current phase shift that
> you measured can always be assumed to be close to zero since the forward
> current and reflected current are approximately equal and rotating in
> opposite phase directions. I explained all this and posted the information

> to my web page many weeks ago yet you still don't understand it.

533. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 07:18:00 UTC
From: Duane Allen <computeruser@sprintmail.com>
Message-ID: <IYMMb.6926$1e.5507@newsread2.news.pas.earthlink.net>
Source record: 102005

kashe@rahul.net wrote:
> On Mon, 12 Jan 2004 17:44:05 GMT, Duane Allen
> <computeruser@sprintmail.com> wrote:
>
>>A supplier of Fair-rite cores is Loadstone Pacific
>>http://www.loadstonepacific.com/. The price per core is under $5. They
>>do have a $50 minimum per order.
>
>
> Try http://www.lodestonepacific.com/ -- the one supplied does
> not resolve.
>

You are correct. It is lodestonepacific.

Thanks for the correction.

534. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 07:23:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40039d96_2@corp.newsgroups.com>
Source record: 102006

Roy Lewallen wrote:

> No, Cecil, I'll give the money to anyone who _shows_ that Yuri made the
> correct prediction, not someone who just says he did.

That 5% prediction was within your measurement accuracy which you
quoted earlier.

> The result of the first test (about 18 degrees equivalent antenna
> "replacement") was 3.1% reduction, with no phase shift, output to input.

You keep talking about the phase shift of the NET current. That is
NOT what was being discussed. The phase shift that Yuri and I were
talking about is the phase shift of the component forward and reflected
waves. Because of your lack of comprehension, YOU MEASURED THE WRONG
FRIGGIN' CURRENT!!! You cannot be allowed to make a stupid mistake like
that and then try to turn it into an advantage for you. It is a no-
brainer to predict that there's no phase shift in the NET current since
the forward and reflected currents are approximately the same magnitude
and rotating in opposite directions. My web page explains it all.

> For that test, Yuri predicted 5% or 2.5% with 18 degrees of phase shift.
> See the direct quotes I just posted for evidence. For the second test,
> with 33 degrees of a more ideal antenna "replaced", Yuri made no
> prediction, and the result was 5.4% and no phase shift. The "theory" you
> and Yuri are fond of, and which you thoughtfully again show in your
> posting, predicts 16+%.

5% equals a phase shift of 18 degrees. 3% equals a phase shift of 14 degrees.
Why can't you get that through your head? Our predictions were, no doubt,
within your measurement accuracy.

ArcCos(0.95) = 18 degrees ArcCos(0.97) = 14 degrees

> Do you really think we're dumb enough not to notice you're using the
> "replacement" length from the first test to calculate the result from
> the second test, then crying "Aha!"? That you're completely ignoring the
> results from the second test and what your favorite equation would predict?

You obviously still don't comprehend. The phase shift is a *calculated*
value based on the current ratio. If you had bothered to read my web page,
you wouldn't be so ignorant of what I have been saying. "Replacement"
length does not appear anywhere in my equations and is irrelevant to
those equations. You remind me of the guy who got extremely angry when
he thought someone had stolen his expensive sunglasses only to discover
them on his own head. When (and if) you comprehend the error of your ways,
I expect an apology.

A predicted current difference of 5% equals a phase shift of 18 degrees in both the forward and reflected currents. According to the laws of physics, it cannot be anything else, given the assumptions. You cannot have a current difference of 5% and zero phase shift in the forward current. That's technically impossible but you didn't even recognize it.

A predicted current difference of 3% equals a phase shift of 14 degrees in both the forward and reflected currents.

> Present evidence (you do understand the concept, don't you?) that Yuri
> -- or you -- correctly predicted the result of either test before the
> test result was posted, by giving the date and quote, and the money's
> yours.

You have already admitted the estimate was close. A 5% prediction corresponds to a phase shift of 18 degrees. A 3% prediction corresponds to a phase shift of 14 degrees. Your lack of comprehension is no excuse for you welching on your bet.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

535. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 07:54:07 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <lqYZZjEfQ6AAFAsF@ifwtech.co.uk>
Source record: 102007

Mike Luther wrote:
>
>The simplest cheapest place in the USA I have found to buy these little
>ferrite core gadgets you can loop coax and speaker leads and power
>leads around .. is at Radio Shack. You can buy packages of several for
>a few USD. They have a little plastic holder that splits them apart so
>that you can open the ring core and wrape a line around them without
>cutting anything. I've been using them all around the place for years
>on phone lines, speaker lines. coax lines to country TV andtenna
>problems and so on. No, they are not good enough for everything. But
>they sure make it easy to test things for improvements and help you
>figure out where a problem may be solved.
>
>

Ferrite isn't magic, so don't expect one small clip-on ferrite core to solve all your RFI problems.

There are some RFI cases where a single clip-on core is a complete cure... but there are many more cases where it's not enough.

To have some serious chance of curing RFI, you need to use several turns on a fairly large lump of ferrite.

Note the recommendation about the Fair-rite 5943003801 core. This is a large core, of the right grade (#43) for good HF performance, and also you need to wind several turns of the phone line through it.

A choke like that will be equivalent to a string of maybe 20-30 clip-on cores... so if one clip-on core doesn't work, try harder.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

536. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 09:50:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ijf700dp18p1i3qtlq029fn7nn71qj3a9g@4ax.com>
Source record: 102008

On Tue, 13 Jan 2004 01:23:33 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Roy Lewallen wrote:
>> Do you really think we're dumb enough not to notice
snip
>Your lack of comprehension is no excuse

(*sigh*) indeed.

You boys need to get a room and do this in private.

537. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 09:53:08 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401130153.4184a8e4@posting.google.com>
Source record: 102009

Walter Maxwell <w2du@iag.net> wrote in message
news:<pf46009habuqeh5gjbv48l83rhe9u26l8e@4ax.com>...
> Bill, KM4LS, forwarded my emial to him to Ted Hart, W5QJR. The following is
> Ted's response to me:
>
> Hi Walter,
>
> Bill sent me your note. Good to hear your view point on the EH Antenna. Sorry
> you have not moved your brain into this century.

Walter is over 100 years old? Maybe they didn't have U-haul trailers
to haul brain matter in 1904?

100 Years ago man could not
> fly.

And 100 years later he still can't, unless he is on some kind of drug
that makes him think he is...

If you read out web site you will find that our AM Broadcast antenna
out
> performs a standard 1/4 wave AM Broadcast antenna.

Boy howdy...
http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&threadm=17plnv027cn5lo0ibuadd6vieb1q4g1
ajv%404ax.com&rnum=2&prev=/groups%3Fhl%3Den%26lr%3D%26ie%3DISO-8859-1%26q%3Deh%2Bantenna%2
6btnG%3DGoogle%2BSearch%26meta%3D

Note the local response to this "proof"... Note the near unanimous
approval of this "proof"....Not.... :/

We also have commercial
> applications. Further, by direct comparison the EH Antenna outperforms wire
> antennas for Ham use.

Proof by misapplication of the product? Har...Har...Har...
>
> I have proven the EH Antenna.

I have proven my old 1968 ford truck, but I have never been prone to
think it can fly to Dallas like a Southwest boeing 737-300. Sure, I
could strap a JATO rocket to it and probably become airborne, but the
thrust reversers "drum brakes", probably would be insufficient to stop
me from becoming a wet spot on the side of a Love field hanger upon
landing. I did stay at a Holiday Inn last night though...Would this
count as "proof" ??? MK

538. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 10:05:48 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4003c39d_7@corp.newsgroups.com>
Source record: 102010

Richard Clark wrote:
> You boys need to get a room and do this in private.

Bottom line - The original question was:

Is the current at the bottom of a real-world mobile bugcatcher
coil equal to the current into the stinger. The answer is NO!
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

539. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 11:23:13 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <QxQMb.3303$A74.683@fed1read02>
Source record: 102011

"Marvin Rosen" <puns@verizon.net> wrote in message
news:dvHMb.965$4P6.285@nwrddc01.gnilink.net...
> Is there such a thing as a 2 mtr omnidirectional
> vertical beam antenna?
>
>

You want an omnidirectional directional antenna?! Nope, there isn't any such thing.

An omnidirectional antenna radiates equally in ALL directions. If you think of all the power flowing into an antenna being radiated out, equally illuminating every unit area of an imaginary sphere around the antenna, then that's an isotropic radiator. Since ALL the input power is radiated, you never get any more efficient than that.

If you distort the radiation pattern, so that power isn't equal for every unit area of that sphere, you now have a directional antenna. You get an apparent gain in a certain direction because you have "stolen" some power from other directions. No free lunch, etc.

If you get sloppy with your definition of omnidirectional, you might try to call something like a quarter-wave vertical rod above a ground plane is an omnidirectional antenna. Assuming perfect construction, this antenna radiates equally well in all azimuths. But it sure doesn't radiate equally well at all elevations. Either way, this isn't a "beam" antenna.

And once you array a group of dipoles or loops to form a classic beam antenna, you don't have omni-directional radiation vertically or horizontally.

--
Ed
WB6WSN

540. Re: Antenna monitor for low power TX

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 11:32:02 UTC
From: Gary Smith <swordtail@dodo.com.au>
Message-ID: <4003d731$1@news.comindico.com.au>
Source record: 102012

How about a receiver with variable attenuation? so you have a good signal when all is well, then when you pull the antenna outa the tx'er, the signal disappears from your receiver.

Gary

"David Huisman" <dhuisman@bigpond.net.au> wrote in message news:9u%Lb.4887$Wa.2081@news-server.bigpond.net.au...
> Hi,
>
> I am looking for some ideas for a low cost circuit to detect if an antenna
> has been broken or removed
> from a 10mW transmitter.
>
> Initial thoughts are to measure SWR but I need a small, low cost circuit I
> can place between PCB Antenna connector and the antenna.
>
> Thanks in advance for any assistance
>
> Kind Regards
>
> David Huisman
>
>

541. Ku band Dish - effect of distortion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 12:58:35 UTC
From: Eric Johnston <eric.johnston@blueyonder.co.uk>
Message-ID: <2YRMb.2278$1q3.135@news-binary.blueyonder.co.uk>
Source record: 102013

If you have a 1m diameter dish, F/D=0.8.
Put string up/down and side/side and measure 5mm gap error in centre.
Distortion is that the sides are forward, and top and bottom are backwards slightly.

What is the effect on gain at 14 GHz?
What is the effect on sidelobe patterns?
What if the string gap error varies from 1 to 10mm ?

Best regards, Eric.

542. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 13:00:44 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <1007qvqej18577d@corp.supernews.com>
Source record: 102014

Thanks Ian, and for emphasis on the point!

Ian White, G3SEK wrote:

>
> Ferrite isn't magic, so don't expect one small clip-on ferrite core to
> solve all your RFI problems.
>
> There are some RFI cases where a single clip-on core is a complete
> cure... but there are many more cases where it's not enough.
>
> To have some serious chance of curing RFI, you need to use several
> turns on a fairly large lump of ferrite.
>
> Note the recommendation about the Fair-rite 5943003801 core. This is a
> large core, of the right grade (#43) for good HF performance, and also
> you need to wind several turns of the phone line through it.
>
> A choke like that will be equivalent to a string of maybe 20-30
> clip-on cores... so if one clip-on core doesn't work, try harder.
>
>
My point was that if you could notice a change in the problem for the
better, you have a path down which to go. Doing a better job of solving
the problem is better than never finding which road has problems on it.

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

543. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 13:07:01 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <1007rbhke957ucd@corp.supernews.com>
Source record: 102015

Yes, Ed .. but for a beginner, sometimes a picture is worth a lot ..

Ed Price wrote:

>"Marvin Rosen" <puns@verizon.net> wrote in message
>news:dvHMb.965$4P6.285@nwrddc01.gnilink.net...
>
>
>>Is there such a thing as a 2 mtr omnidirectional
>>vertical beam antenna?
>>
>>
>
>You want an omnidirectional directional antenna?! Nope, there isn't any such
>thing.
>
>
>
Maybe if he visualized a round balloon on a table it might help.
Imagine then taking your hand and pressing it on the top. That squishes
down the top toward the bottom, sorta flattening the balloon. All of
the sides bulge out.

In a way, that is what we are talking about. Everything extra we get in
some direction comes at the expense of some other direction! But if
the earth is the table, looking at it that way, you can reach a lot more
people if you stop reaching for the stars...

W5WQN - I keep forgeeting to add that to my posts in this group, sorry.

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

544. Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 15:05:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bu11f3$9p1$1@sparta.btinternet.com>
Source record: 102016

GENTLEMEN, behave yourselves.

The ONLY way of modelling the effect of a loading coil in an antenna wire is to consider it to be a section of a continuous-inductance-loaded transmission line which also has a radiation resistance.

Which, of course, is what it actually is. It can then be incorporated in the remainder of the system which consists of other radiating transmission line sections.

As with all other lines it has length and diameter (that of the coil former).

It has a uniformly distributed capacitance (to the rest of the world) per unit length.

It has normal distributed inductance per unit length PLUS the MUTCH extra inductance due to being wound as a coil.

It has the normal RF wire loss resistance.

It has a uniformly distributed radiation resistance according to the length of the coil former. (NOT of the length of the wire on the coil.)

R, L and C are all calculable, or at least can be estimated, from dimensions.

So in an antenna system, in general, we have 3 consectutive transmission lines sections with the loading coil forming the center section.

Because of the high inductance of the loading coil, Zo = Sqrt(L/C) will have a much higher value than that of a wire of the same straight length.

If a generator (transmitter) is applied at one end then currents, voltages and phase relationships at any point along the overall length can be calculated. Mismatches between Zo's of the various sections are automatically taken into account.

But we are ultimately interested only in input impedance, efficiency and power radiated. All the intermediate stuff which may be available in the process is just so much waffle for the old wives to haggle about.

As is well known, the coil alone, a simple helix, if of appreciable former length relative to a 1/4-wavelength, will radiate.

Download in a few seconds program HELICAL and run immediately. Enter the following values -

Height = 2.5m
Coil dia = 50mm
Coil turns = 750
Wire dia = 2.5mm
Rod length = 0mm
Rod dia = 0mm
Ground loss = 8 ohms

Computed results are the performance of a Helical 160 meter band antenna
which was popular a few years back amongst UK mobile amateurs.

Its a case of the height being so low and the loading inductance being so
big that it occupies the whole length of the antenna. Why waste the space?

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

545. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 15:27:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bu12pk$cd7$1@hercules.btinternet.com>
Source record: 102018

> Why would that be? I find it fascinating.
>
Do you mean you can understand the tripe?

546. Re: Ku band Dish - effect of distortion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 15:28:28 UTC
From: andrew <andrew@nospam.co.uk>
Message-ID: <VLKHWdAc6ABAFww1@gi0nwg.freeserve.co.uk>
Source record: 102017

In article <2YRMb.2278$1q3.135@news-binary.blueyonder.co.uk>, Eric
Johnston <eric.johnston@blueyonder.co.uk> writes
>If you have a 1m diameter dish, F/D=0.8.
>Put string up/down and side/side and measure 5mm gap error in centre.
>Distortion is that the sides are forward, and top and bottom are backwards
>slightly.
>
>What is the effect on gain at 14 GHz?
>What is the effect on sidelobe patterns?
>What if the string gap error varies from 1 to 10mm ?

Eric,

I don't have the book on hand so can't I look it up, but I seem to
recall graphs of this in the ARRL Antenna Book (at least for the effect
on gain). It could be worth finding a copy as a graph would be easier
to make an approximation from than trying to work the formulas!

Andrew Williamson GI0NWG / AC6WI
Homepage = http://www.gi0nwg.freeserve.co.uk/

One of the ZL9CI gang
http://www.qsl.net/zl9ci/

547. Re: Antenna advice - "Plastic Car"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 16:13:59 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4002c256_1@newsfeed.slurp.net>
Source record: 101869

John, the on-glass antennas do not require a separate ground; the antenna uses the coax shield and the radio ground. When you mount the antenna, you need to avoid mounting near a rear-windo de-fogger - the two don't like each other. Also, I recommend the Larsen version of the antenna, versus anyone else's - it just seems to perform better. Good luck!

73,
Mike KI6PR
El Rancho R.F., CA

"John" wrote
> Greetings all
> I have a 87 Fiero GT - V6 Mid-Engined Plastic car. I have been
> considering using an "On-The-Glass" MultiBand antenna (2M / 440Mhz) on
> this car. Has anyone done this? what kind of results? any tricks to
> improving signal? My concern is the lack of body sheet metal... There
> are frame parts and a V6 engine under the back deck, but I don't know if
> that's enough with one of these antennas.. There is a approx... 10"
> square piece of metal plate under the back deck that a mag mount could
> adhere to, but the car has a new high quality paint job on it and I
> don't want to mount anything on the body.... There are no bumbers to
> mount to, Their all shrouded in moulded plastic....
>
> I would be grateful for your advice..
> Thanks
> John
> KD4RN
>

548. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 16:19:49 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4002c3b5_7@newsfeed.slurp.net>
Source record: 101870

Uh...no? "Omnidirectional" and "beam" are mutually exclusive terms. It's either one or the other...You can have a bi-directional beam, but if it's omnidirectional, it's either not a beam at all, or a really, really poor one...

- KI6PR

"Marvin Rosen" wrote
> Is there such a thing as a 2 mtr omnidirectional
> vertical beam antenna?
>
>

549. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 16:57:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4004241e$1_8@corp.newsgroups.com>
Source record: 101871

Reg Edwards wrote:
> So in an antenna system, in general, we have 3 consectutive transmission
> lines sections with the loading coil forming the center section.
> Because of the high inductance of the loading coil, Zo = Sqrt(L/C) will have
> a much higher value than that of a wire of the same straight length.

(Rhetorical Question)
Given that the coil section resembles a high-Zo transmission line with
reflections, how can the current into the coil section be equal in
magnitude and phase to the current out of the coil section?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

550. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 17:10:08 UTC
From: richardharrison@webtv.net
Message-ID: <8302-40042670-15@storefull-3252.bay.webtv.net>
Source record: 101872

Roy, W7EL wrote:
"When asked for the justification of the "cosine rule", he never offered any, so its origin remains obscure."

It comes from the similarity of a standing wave antenna to a transmission line. It isn`t a prominent feature of antenna texts because energy isn`t confined to an antenna as it is to a transmission line. Antenna behavior is more complicated. Terman refers the reader to his transmission line section to explain standing wave antenna action innstead of making a detailled explanation in his antenna section. Maybe he was limited in number of pages. The explanation is available from a collection of sources.

From "Transmission Lines, Antennas, and Wave Guides" by King, Mimno, and Wing, page 93:
"---the distribution of current in antennas with h=WL/4 and with a wide range of radii can be represented quite accurately by:

Iz = Io cos beta(z)

beta(z) is the distance from the antenna input in degrees.

It is obvious that the current must reverse directions at the open circuit end of the antenna. This results in a total of forward and reflected current of nearly zero while 1/4-wave back from the open circuit, a current maximum results.

Kraus says that at the center of a 1/2-wavelength dipole, the effect of wave cancellation is least and radiation is maximum perpendicular to the wire at the center of the dipole, or words to that effect. The same is true of the 1/4-wave vertical which along with its reflection in a ground plane constitutes a 1/2-wavelength dipole.

Kraus also says that the tip cancellation accounts for the dipole radiation pattern shaped as a doughnut impaled at the center of a dipole. Again, these are my interpretations of Kraus` words as I remember them.

Best regards, Richard Harrison, KB5WZI

551. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 17:30:13 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40042B25.EAB408F9@uci.edu>
Source record: 101875

```
Cecil Moore wrote:
>
> Reg Edwards wrote:
> > So in an antenna system, in general, we have 3 consectutive transmission
> > lines sections with the loading coil forming the center section.
> > Because of the high inductance of the loading coil, Zo = Sqrt(L/C) will have
> > a much higher value than that of a wire of the same straight length.
>
> (Rhetorical Question)
> Given that the coil section resembles a high-Zo transmission line with
> reflections, how can the current into the coil section be equal in
> magnitude and phase to the current out of the coil section?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Maybe it's a half wavelength long? ;-)

73, Jim AC6XG
```

552. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 17:47:34 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40042F36.56E8EE34@uci.edu>
Source record: 101877

Richard Harrison wrote:
>
> Roy, W7EL wrote:
> "When asked for the justification of the "cosine rule", he never offered
> any, so its origin remains obscure."
>
> It comes from the similarity of a standing wave antenna to a
> transmission line. It isn`t a prominent feature of antenna texts because
> energy isn`t confined to an antenna as it is to a transmission line.
> Antenna behavior is more complicated. Terman refers the reader to his
> transmission line section to explain standing wave antenna action
> innstead of making a detailled explanation in his antenna section. Maybe
> he was limited in number of pages. The explanation is available from a
> collection of sources.
>
> From "Transmission Lines, Antennas, and Wave Guides" by King, Mimno,
> and Wing, page 93:
> "---the distribution of current in antennas with h=WL/4 and with a wide
> range of radii can be represented quite accurately by:
>
> Iz = Io cos beta(z)
>
> beta(z) is the distance from the antenna input in degrees.
>
> It is obvious that the current must reverse directions at the open
> circuit end of the antenna. This results in a total of forward and
> reflected current of nearly zero while 1/4-wave back from the open
> circuit, a current maximum results.

Excellent. Roy is telling us that beta(z) at one end of the coil is
essentially equal to beta(z) at the other end of the coil. And Reg
might have us believe it's the length of the bobbin that matters in this
regard.

73, Jim AC6XG

553. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 17:59:57 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4004321D.39001079@uci.edu>
Source record: 101881

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > Maybe it's a half wavelength long? ;-)

> For a real-world air-core coil to exhibit identical currents at the
> input and output, it would have to be one wavelength long, lossless,
> and non-radiating. That's a pretty tall order just to support an
> old wives' tale. :-)

I happily stand corrected.

73 de jk

554. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 18:02:58 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <400432D2.EB807C20@uci.edu>
Source record: 101882

Cecil Moore wrote:
>
> Jim Kelley wrote:
>
> >
> > Richard Harrison wrote:
> >>Iz = Io cos beta(z)
>
> > Excellent. Roy is telling us that beta(z) at one end of the coil is
> > essentially equal to beta(z) at the other end of the coil.
>
> Which requires a lossless, non-radiating coil with zero capacitance.

Just out of curiosity, to which of those characteristics do you
attribute the phase delay?

73, Jim AC6XG

555. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 18:09:35 UTC
From: tdonaly@aol.com
Message-ID: <20040113130935.21847.00001649@mb-m19.aol.com>
Source record: 101873

Mark wrote,
>
>Walter Maxwell <w2du@iag.net> wrote in message
>news:<pf46009habuqeh5gjbv48l83rhe9u26l8e@4ax.com>...
>> Bill, KM4LS, forwarded my emial to him to Ted Hart, W5QJR. The following is
>> Ted's response to me:
>>
>> Hi Walter,
>>
>> Bill sent me your note. Good to hear your view point on the EH Antenna.
>Sorry
>> you have not moved your brain into this century.
>
>Walter is over 100 years old? Maybe they didn't have U-haul trailers
>to haul brain matter in 1904?
>
> 100 Years ago man could not
>> fly.
>
>And 100 years later he still can't, unless he is on some kind of drug
>that makes him think he is...
>
>If you read out web site you will find that our AM Broadcast antenna
>out
>> performs a standard 1/4 wave AM Broadcast antenna.
>
>Boy howdy...

>
>http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&threadm=17plnv027cn5lo
0ibuadd6vieb1q4g1ajv%404ax.com&rnum=2&prev=/groups%3Fhl%3Den%26lr%3D%26ie%
3DISO-8859-1%26q%3Deh%2Bantenna%26btnG%3DGoogle%2BSearch%26meta%3D
>
>Note the local response to this "proof"... Note the near unanimous
>approval of this "proof"....Not.... :/
>
>We also have commercial
>> applications. Further, by direct comparison the EH Antenna outperforms wire
>> antennas for Ham use.
>
>Proof by misapplication of the product? Har...Har...Har...
>>
>> I have proven the EH Antenna.
>

>I have proven my old 1968 ford truck, but I have never been prone to
>think it can fly to Dallas like a Southwest boeing 737-300. Sure, I
>could strap a JATO rocket to it and probably become airborne, but the
>thrust reversers "drum brakes", probably would be insufficient to stop
>me from becoming a wet spot on the side of a Love field hanger upon
>landing. I did stay at a Holiday Inn last night though...Would this
>count as "proof" ??? MK
>

This is an old story: someone comes up with what he thinks is some
way to do the impossible and becomes so fanatically attached to his
idea that he is willing to defend it to the death no matter how much proof
there is to the contrary (and try to make a buck off it,too). Very few people
take the EH antenna seriously any more. I'm surprised Walt even took the
trouble to argue with these fellows.

Tom Donaly, KA6RUH

556. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 18:18:26 UTC
From: tdonaly@aol.com
Message-ID: <20040113131826.21847.00001650@mb-m19.aol.com>
Source record: 101874

Reg wrote,
>
>The ONLY way of modelling the effect of a loading coil in an antenna wire is
>to consider it to be a section of a continuous-inductance-loaded
>transmission line which also has a radiation resistance.
>

Another absolutist, fairly assinine statement from across the pond. How do
you know it's the ONLY way, Reg, have you tried any others?

Tom Donaly, KA6RUH

557. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 18:20:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400437a5_1@corp.newsgroups.com>
Source record: 101876

Richard Harrison wrote:
> Roy, W7EL wrote:
> "When asked for the justification of the "cosine rule", he never offered
> any, so its origin remains obscure."

Roy, I posted a reference for the cosine rule weeks ago. Perhaps you
missed it. If you had read it, you wouldn't have wasted your time
measuring the phase angle of the net current through a loading coil.
My "odd theory" is based on Kraus' treatment of the cosine rule.
See below:

> It comes from the similarity of a standing wave antenna to a
> transmission line. It isn`t a prominent feature of antenna texts because
> energy isn`t confined to an antenna as it is to a transmission line.

> Kraus says that at the center of a 1/2-wavelength dipole, the effect of
> wave cancellation is least and radiation is maximum perpendicular to the
> wire at the center of the dipole, or words to that effect.

The reference for the cosine rule is from _Antennas_For_All_Applications_,
by Kraus & Marhefka, 3rd edition, pages 463-465, section 14-3, Current
Distributions, Figure 14-2, Relative current amplitude and phase along a
center-fed 1/2WL cylindrical antenna.

This is where my "odd theory" comes from. Kraus says: "It is generally
assumed that the current distribution of an infinitesimally thin antenna
is sinusoidal, and that the phase is constant over a 1/2WL interval, changing
abruptly by 180 degrees between intervals."

Kraus is making the assumption that the forward current is equal to the
reflected current such that their superposition sum has constant phase.
Setting the center of the dipole as the origin and normalizing the
feedpoint current to 1.0, the current at any point on the dipole can
be calculated as the cosine of 'x' where 'x' is degrees away from the
center. Thus, if one knows the normalized current at any point on the
dipole, one can calculate the number of degrees one is away from center
using ArcCos(I). This is how I calculate the number of degrees associated
with a loading coil. Assuming the input current is 1.0 and the output
current is 0.95, ArcCos(0.95) = 18 degrees.

All this "odd theory" is based on Kraus. I suggest anyone who thinks
this is "odd theory" take time out and read Kraus.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!

------== Over 100,000 Newsgroups - 19 Different Servers! =-----

558. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 18:30:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400439d5_1@corp.newsgroups.com>
Source record: 101878

Jim Kelley wrote:
> Cecil Moore wrote:
>>(Rhetorical Question)
>>Given that the coil section resembles a high-Zo transmission line with
>>reflections, how can the current into the coil section be equal in
>>magnitude and phase to the current out of the coil section?
>
> Maybe it's a half wavelength long? ;-)

Strangely enough, that won't do it, Jim. A coil equivalent to 1/2WL
reverses the phase of the current such that current is flowing into
both ends at the same time. According to some gurus, that violates
Kirchhoff's laws. But Kraus shows how phase-reversing coils are
used in collinear arrays. Reckon Kraus knows he is violating Kirchhoff's
laws?

For a real-world air-core coil to exhibit identical currents at the
input and output, it would have to be one wavelength long, lossless,
and non-radiating. That's a pretty tall order just to support an
old wives' tale. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

559. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 18:40:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40043c3f_1@corp.newsgroups.com>
Source record: 101879

Jim Kelley wrote:

>
> Richard Harrison wrote:
>>Iz = Io cos beta(z)

> Excellent. Roy is telling us that beta(z) at one end of the coil is
> essentially equal to beta(z) at the other end of the coil.

Which requires a lossless, non-radiating coil with zero capacitance.
Where can I get one of those?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

560. Re: Antenna advice - "Plastic Car"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 18:45:23 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <71XMb.44953$na.36735@attbi_s04>
Source record: 101880

As previously stated: The Larsen through the glass should work fine.
Just make sure it is 1/2 inch [~1 cm] from the window heater wires in
the glass.

John wrote:

> Greetings all
> I have a 87 Fiero GT - V6 Mid-Engined Plastic car. I have been
> considering using an "On-The-Glass" MultiBand antenna (2M / 440Mhz) on
> this car. Has anyone done this? what kind of results? any tricks to
> improving signal? My concern is the lack of body sheet metal... There
> are frame parts and a V6 engine under the back deck, but I don't know if
> that's enough with one of these antennas.. There is a approx... 10"
> square piece of metal plate under the back deck that a mag mount could
> adhere to, but the car has a new high quality paint job on it and I
> don't want to mount anything on the body.... There are no bumbers to
> mount to, Their all shrouded in moulded plastic....
>
> I would be grateful for your advice..
> Thanks
> John
> KD4RN
>

561. Re: Antenna advice - "Plastic Car"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 18:59:31 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <eff800paccgl1ol85lbh8bpm1uvc5i4ce7@4ax.com>
Source record: 101886

On Tue, 13 Jan 2004 08:13:59 -0800, "Mikey" <ki6pr@arrl.net> wrote:

>John, the on-glass antennas do not require a separate ground; the antenna

I had one that did, but as far as I recall the Larsen does not.

>uses the coax shield and the radio ground. When you mount the antenna, you
>need to avoid mounting near a rear-windo de-fogger - the two don't like each
>other. Also, I recommend the Larsen version of the antenna, versus anyone
>else's - it just seems to perform better. Good luck!

I had good luck using a Larsen in a Transam and at one time or another
I had either the TM-V7A, or TM-D700 in there.

I had a SUV pull out in front of me. Took him broadside at what was
figured to be 50 (only left 12 feet of skid marks). The TA stopped so
quick the metal mount for the TM-D700 control head was smashed flat
by inertia. The right front tire was back into the firewall and the
firewall was clear back against the underside of the dash. (all the
way across) Radio was still working after the impact.

The Larsen stayed in place. In fact, later I had to use a wood chisel
to get the thing off the rear window. (TA was totaled)

Roger Halstead (K8RI & ARRL life member)
(N833R, S/N CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>73,
>Mike KI6PR
>El Rancho R.F., CA
>
>"John" wrote
>> Greetings all
>> I have a 87 Fiero GT - V6 Mid-Engined Plastic car. I have been
>> considering using an "On-The-Glass" MultiBand antenna (2M / 440Mhz) on
>> this car. Has anyone done this? what kind of results? any tricks to
>> improving signal? My concern is the lack of body sheet metal... There
>> are frame parts and a V6 engine under the back deck, but I don't know if
>> that's enough with one of these antennas.. There is a approx... 10"
>> square piece of metal plate under the back deck that a mag mount could
>> adhere to, but the car has a new high quality paint job on it and I
>> don't want to mount anything on the body.... There are no bumbers to
>> mount to, Their all shrouded in moulded plastic....
>>
>> I would be grateful for your advice..

>> Thanks
>> John
>> KD4RN
>>
>

562. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 19:14:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40044437$1_1@corp.newsgroups.com>
Source record: 101884

Jim Kelley wrote:

> Cecil Moore wrote:
>>Which requires a lossless, non-radiating coil with zero capacitance.
>
> Just out of curiosity, to which of those characteristics do you
> attribute the phase delay?

Speed of light? :-) Seems the primary cause of the phase delay would
be the capacitance.

In many ways, this discussion has become ridiculous. On 440 MHz, one
inch of wire is ~13 degrees. Some gurus would have us believe that
a physically small one inch coil is zero degrees??????
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

563. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 19:16:32 UTC
From: tdonaly@aol.com
Message-ID: <20040113141632.21847.00001653@mb-m19.aol.com>
Source record: 101883

Cecil wrote,
>
>Reg Edwards wrote:
>> So in an antenna system, in general, we have 3 consectutive transmission
>> lines sections with the loading coil forming the center section.
>> Because of the high inductance of the loading coil, Zo = Sqrt(L/C) will
>have
>> a much higher value than that of a wire of the same straight length.
>
>(Rhetorical Question)
>Given that the coil section resembles a high-Zo transmission line with
>reflections, how can the current into the coil section be equal in
>magnitude and phase to the current out of the coil section?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

An invidious post if ever I saw one. You've got to get out of the
habit, Cecil, of believing the things you think up in your head.
You've got a horrible case of I-think-therefore-it-is syndrome.
Experiment more. Sit at the feet of Richard Clark and learn how
to measure. Learn the truth first and then make up your theories,
knowing beforehand that every theory is an abstraction. Leave the
tunnel vision and its resultant dogmatism to the local baptist
minister. Quit believing that you can win an argument with slippery
evasions and insults, or that there is even any advantage in winning
at all. If they are true, your ideas will fight their own battles, and if
they're false, no amount of bluster and tortured logic will make people
believe them. You've spent countless hours arguing the case for your
interpretation of how waves work, and the only thing you've accomplished
is that you've antagonized a group of people more knowledgeable than
you are.
I'm not asking you to give up, but it would be nice, both for the
benefit of the newsgroup and for your reputation if you would temper
your fanaticism with just a bit of experimentation, dispassionate
reflection and self-doubt.
73,
Tom Donaly, KA6RUH

73,
Tom Donaly, KA6RUH

564. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 19:27:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4004475a$1_1@corp.newsgroups.com>
Source record: 101885

Tdonaly wrote:
> You've spent countless hours arguing the case for your
> interpretation of how waves work, and the only thing you've accomplished
> is that you've antagonized a group of people more knowledgeable than
> you are.

A group more knowledgeable about EM waves than Eugene Hecht? It is
not my interpretation of how waves work, Tom. It is the consensus
of opinions of experts from the field of optics. Non-glare glass
is exactly the same thing as a 1/4WL matching section in a transmission
line and how the interference causes the match is fully understood. If
proven, accepted knowledge from a closely related technical field
antagonizes a bunch of closed-minded ivory tower gurus on this newsgroup,
so be it.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

565. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 19:48:14 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40044B7E.6418EA0F@uci.edu>
Source record: 101887

Cecil Moore wrote:
>
> Jim Kelley wrote:
>
> > Cecil Moore wrote:
> >>Which requires a lossless, non-radiating coil with zero capacitance.
> >
> > Just out of curiosity, to which of those characteristics do you
> > attribute the phase delay?
>
> Speed of light? :-)

The finite speed of light though a finite length of wire, yes.

> Seems the primary cause of the phase delay would
> be the capacitance.

With regard to coils, I think inductance is probably the more relevant parameter. It's proportional to the number of turns and the length of each turn of wire, and inversely proportional to the length of the bobbin.

73, Jim AC6XG

566. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 20:26:51 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <2qk8005d7ucf32qqe1tppgtr50sl60oj6l@4ax.com>
Source record: 101888

----- Original Message -----
From: Walter Maxwell
To: Ted
Sent: Tuesday, January 13, 2004 3:20 PM
Subject: Re: EH Antenna

Hello Ted,

Thank you for your response to my note to Bill.

Ted, I'm sorry to have rained on your parade, but I have not seen any proof that your antenna outperforms any Hertzian antenna as you claim. As I read in the 'Article' appearing on your web site, you are claiming that when your 'EH' is at 1/4 wl above ground it has a 2.25 dB gain over a standard 1/4 wl vertical.

I have reviewed very carefully the engineering document prepared by the broadcast consulting firm of Graham Brock, Inc., who performed extensive field strength measurements on your EH antenna at experimental WK4XVQ in Eatonton, GA, operating on 1520 KHz. To summarize very briefly, their report first shows an average of approximately 1.1 dB less power radiated than the reference standard antenna. Second, it is noted that the test antenna atop a 90-foot tower was coupled to the standard WKVQ tower during the measurements, which is very likely the reason the azimuthal plot of your EH antenna is scalloped rather than circular. I'm sure you're aware that nearby objects that are resonant at the measurement frequency will distort the readings and thus distort the resulting data. What was done at the feedpoint of the WKVQ antenna to eliminate the possibility of its becoming a part of the antenna system? Were the input terminals shorted? Left open? Were any measurements made under both of these conditions to determine whether the the WKVQ antenna was performing as a parasitic radiator?

From the measurements performed by the Graham Brock engineers the resulting data shows evidence that that rather than achieving gain over a standard antenna, the EH antenna performs less well than the standard antenna.

At this point I'd like to repeat what I stated earlier concerning the concept of your EH antenna's performance resulting from changing the time relationship between the E and H fields to increase the radiation. What I stated earlier is that the development of the continuous alternating E and H fields cannot be changed in any way--not by changing the phase of the source current, or by any other means. The laws set forth by electromagnetic theory are immutable. And I also repeat--the antenna you believe to be performing in a new manner is simply a shortened, inductively-loaded Hertzian antenna performing in its conventional manner.

I believe you should consider the following academic treatment that should help convince you that you cannot get additional power for nothing.

Assume a 1/4 wl vertical antenna with zero ohmic resistance working over perfect ground. In this condition the only resistance in the system is radiation resistance, and ALL power delivered to the antenna is radiated. Consider now an imaginary hemisphere surrounding the antenna. When power P is delivered to the antenna and all of the power radiated is then integrated over the entire hemisphere, the integrated power will equal power P exactly. Now, because all of the power delivered to the antenna is radiated, any increase in radiated power due to some change in the configuration of the antenna is impossible. Therefore, this constitutes proof that your claim of gain with the EH configuration is invalid.

You say you have three patents on the EH. In so doing you have accomplished what many before you have accomplished--outwitting the patent examiner who lacked sufficient knowledge of the subject to recognize an invalid concept in the patent application, and granted the patent. You may not have been aware that hundreds of patents have been declared invalid for this specific reason.

Ted, I have no doubt that you honestly believe that your EH concept is correct and valid, and that your antenna is performing within that concept. However, now that you are made aware of the invalidity of the concept, and if you continue to manufacture and sell your antenna as advertised to perform as you say it does, then you must also come to believe you would be misleading the public. In this litigious society don't be surprised if someday an attorney hands you a paper claiming fraud. I would not like to see that happen.

Finally, if you still choose to believe my comments are incorrect, then I would suggest you consult with other RF engineers to obtain their expert opinion, many of whom have far greater intellect on this subject than I. You can find some eminently qualified engineers in the news group rraa (rec.radio.amateur.antenna) by simply going to 'find' and inserting 'EH'.

Cordially,

Walt, W2DU

567. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 20:50:39 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40045A1F.760FD1AB@cwis.net>
Source record: 101889

Ed,
How about a vertical array antenna? It's as omnidirectional
as an antenna can get in a 'real world' situation, and it does
have gain over a single element antenna. Describing it with
the commonly accepted definition of a 'beam' isn't
correct/valid,
(I agree with you there), but it fills the requirements of the
original post (omnidirectional + gain).
'Doc

568. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 20:51:18 UTC
From: richardharrison@webtv.net
Message-ID: <6137-40045A46-416@storefull-3254.bay.webtv.net>
Source record: 101891

Reg Edwards, G4FGQ wrote:
"It has a uniformly distributed radiation resistance according to the length of the coil form."

That may be the case of "treating" radiation resistance as if uniformly distributed. Radiation resistance may be defined as the resistance which would take the same power as that radiated when placed at the high-current point of the antenna.

While a transmission line of uniform cross section may have uniform inductance and capacitance per unit length, it is unlikely that an antenna has uniform capacitance per unit length. Electric field lines of force have a varying concentration along equal small segments of wire length. It`s usually a function of distance between wires and this varies in an antenna because the antenna is meant to radiate.

Variation of capacitance along an antenna causes a variation in surge impedance along the antenna, but a useful average can be used for calculations. Straight wire or coiled as in a rubber ducky, an antenna is subject to this variation in capacitance and surge impedance.

Best regards, Richard Harrison, KB5WZI

569. Re: Antenna advice - "Plastic Car"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 21:01:53 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40045CC1.26E23265@cwis.net>
Source record: 101890

John,
An 'on the glass' antenna should work for you. Mounting
an antenna on the Fiero's body will also work but will be a
real P.I.T.A. since you will have to make connection to the
underlying metal (it's there, just very hard to get to). So,
unless you want to go to a huge amount of trouble for very
little benefit, use the 'on glass' antenna for VHF/UHF. If
you want HF, you will have to start thinking about making a
making a mounting bracket that connects to the car's 'frame'.
Not easy, pretty, and an even bigger P.I.T.A.!
'Doc

570. ON4SKY website updates

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 21:09:47 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <40045e9d$1_2@news.vo.lu>
Source record: 101892
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

Hi OM,

For the novices, and mayube the OT, here are some pages updated on my website about antennas:
http://www.astrosurf.com/lombry/menu-qsl.htm

In particular :

The mystery of radials

Antennas basics (RFI, SWR, gain, etc)

About antennas and longwires

From longwire to yagi

Others will be updated in the forecoming days.

'73

Thierry

ON4KSY

571. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 21:14:09 UTC
From: jder8745@aol.com
Message-ID: <20040113161409.11177.00002760@mb-m11.aol.com>
Source record: 101893

I figured he meant any omnidirectional gain over a vertical 1/2 wave antenna or some other reference.

When the "gain" of something is discussed it must always imply a ratio of the signal strength with respect to some reference.

Common references are a so-called dipole and an isotropic antenna.

For both references you can have omnidirectional gain. My Cushcraft 2-m Ringo Ranger is omnidirection and has gain.

73 de Jack, K9CUN

572. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 21:52:05 UTC
From: Bill <lbj@congress.com>
Message-ID: <bIZMb.51069$qC.23965@bignews3.bellsouth.net>
Source record: 101894

Sir:

Would not Mr. Hart's statements be considered "Hypothesis" not theory.
Your explanation is very lucid for this electronics technician.
Thank you!
But, why is the arena of antenna theory still theory and not "fact" or
"law" or whatever? A succinct explanation, if possible, would be
appreciated.

Regards
Bill Cook N4WC

Walter Maxwell wrote:
> Bill, KM4LS, forwarded my emial to him to Ted Hart, W5QJR. The following is
> Ted's response to me:
>
> Hi Walter,
>
> Bill sent me your note. Good to hear your view point on the EH Antenna. Sorry
> you have not moved your brain into this century. 100 Years ago man could not
> fly. If you read out web site you will find that our AM Broadcast antenna out
> performs a standard 1/4 wave AM Broadcast antenna. We also have commercial
> applications. Further, by direct comparison the EH Antenna outperforms wire
> antennas for Ham use.
>
> I have proven the EH Antenna.
>
> Best regards,
>
> Ted
>
>

573. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 22:25:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400470e4_2@corp.newsgroups.com>
Source record: 101895

Jim Kelley wrote:
> With regard to coils, I think inductance is probably the more relevant
> parameter. It's proportional to the number of turns and the length of
> each turn of wire, and inversely proportional to the length of the
> bobbin.

Is that "bobbin" a part of a coil winding machine? Coil form?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

574. 6 mil thick by 10 inch wide Aluminum sheet for an antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 22:42:36 UTC
From: Roger Gt <Xenot@pacbell.net>
Message-ID: <wv_Mb.10197$gD7.9618@newssvr25.news.prodigy.com>
Source record: 101896

Some time ago I obtained a roll of 6 mil thick 10 inch wide aluminum sheet at a bargain. I intended to use it for an antenna in my attic. I would use plastic clothes hangers as supports stapled to the rafters.

When I mentioned I was finally going to get it installed, a friend told me that the sheet won't make a good antenna. There is plenty of room for a bent dipole so I ask why he thought it wouldn't work. His answer was that the thin edges would have a corona discharge and might set fire to the house. I considered it nonsense, but I wonder -- Running only 100 Watts.

Is there any reason that a thin sheet of the proper length would be unsuitable as an antenna for "indoor" use?

Thanks for you insightful comments.

K7DUP

575. Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 22:51:35 UTC
From: Roger Gt <Xenot@pacbell.net>
Message-ID: <XD_Mb.10199$KP7.1934@newssvr25.news.prodigy.com>
Source record: 101897

Aluminum strip, 10 inches wide and .006 inches thick as a dipole.

Any special considerations?

How can I predict the band width?

576. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 23:21:50 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40047D8E.3A13C1F1@uci.edu>
Source record: 101898

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > With regard to coils, I think inductance is probably the more relevant
> > parameter. It's proportional to the number of turns and the length of
> > each turn of wire, and inversely proportional to the length of the
> > bobbin.
>
> Is that "bobbin" a part of a coil winding machine? Coil form?

It's a spool-like object used to constrain the length and diameter of a
coil of wire to prescribed values.

73, Jim AC6XG

577. Re: 6 mil thick by 10 inch wide Aluminum sheet for an antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 23:33:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dlv800ppc2bk62j8d20hrn0a4ko675ahce@4ax.com>
Source record: 101899

On Tue, 13 Jan 2004 22:42:36 GMT, "Roger Gt" <Xenot@pacbell.net>
wrote:
> thin edges would have a corona discharge and might set fire to the
>house. I considered it nonsense, but I wonder -- Running only 100 Watts.

Hi Roger,

Same thing "might" happen with wire too (it is just as thin and pointy
at the edges and the ends). That is why you use standoff insulators.

"Only 100W" has nothing to do with it, except making it happen faster.
Why, where, or when is strictly a matter of Geometry and wavelength.

Aside from being a thick wire (at least in one dimension); there is
nothing novel that couldn't be accomplished with simple wire. You may
enjoy wider bandwidth at a shorter dimension.

73's
Richard Clark, KB7QHC

578. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-13 23:50:05 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4004842D.22497F8E@cwis.net>
Source record: 101900

Roger Gt wrote:
>
> Aluminum strip, 10 inches wide and .006 inches thick as a dipole.
>
> Any special considerations?

Mechanincal considerations more probably a problem than
electrical considerations.

>
> How can I predict the band width?

Numerology gives about as good a result as others...
'Doc

579. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 00:01:54 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <SF%Mb.387$rL3.198@nwrdny03.gnilink.net>
Source record: 101901

Walter,
You said:
"When power P is delivered to the
antenna and all of the power radiated is then integrated over the entire
hemisphere, the integrated power will equal power P exactly. Now, because
all of
the power delivered to the antenna is radiated, any increase in radiated
power
due to some change in the configuration of the antenna is impossible.
Therefore,
this constitutes proof that your claim of gain with the EH configuration is
invalid."

I disagree. I think all you've asserted is conservation of energy, not
whether or not the antenna has gain.

Joe
W3JDR

580. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 00:09:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bu21b8$s9h$1@titan.btinternet.com>
Source record: 101902

"Tdonaly"
> Reg wrote,
> >
> >The ONLY way of modelling the effect of a loading coil in an antenna wire
is
> >to consider it to be a section of a continuous-inductance-loaded
> >transmission line which also has a radiation resistance.
> >
>
> Another absolutist, fairly assinine statement from across the pond. How do
> you know it's the ONLY way, Reg, have you tried any others?
>
> Tom Donaly, KA6RUH
>
========================

Tom, beware the Green-eyed Technology Goddess.

WE have modelling programs which actually WORK.

And FREE to US citizens.

Is this 'dumping' of shoddy goods?

After gigabytes upon gigabytes of civil war amongst yourselves - YOU
havn't!

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

581. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 00:16:30 UTC
From: jgboyles@aol.com
Message-ID: <20040113191630.08055.00002964@mb-m16.aol.com>
Source record: 101903

>Aluminum strip, 10 inches wide and .006 inches thick as a dipole.

How long?

>Any special considerations?

How long you are to make your dipole, and what frequency do you intend to operate?

>How can I predict the band width?

In general wider and thicker produce wider bandwidth. Short dipoles or long ones in terms of wavelength may have reduced bandwidth because of limitations of matching devices.
As you know, bandwidth does not mean a good antenna. A resistor can have a huge bandwidth, but radiate very little.
73 Gary N4AST

582. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 00:21:54 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <40048BA8.7000906@get.lost>
Source record: 101904

Tdonaly wrote:

> This is an old story: someone comes up with what he thinks is some
> way to do the impossible and becomes so fanatically attached to his
> idea that he is willing to defend it to the death no matter how much proof
> there is to the contrary (and try to make a buck off it,too).

Yeah, religions *are* silly. At least he's not wasting the taxpayers'
money on the faith-based antennas.

WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

583. Re: Antenna advice - "Plastic Car"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 00:24:22 UTC
From: Rich <me@thisisnotarealaddress.com>
Message-ID: <jq290091ojsqubdvl8qcs2o0kfvdhnd6ac@4ax.com>
Source record: 101905

On Tue, 13 Jan 2004 02:31:31 GMT, John <res0b06f@verizon.net> wrote:

>Greetings all
>I have a 87 Fiero GT - V6 Mid-Engined Plastic car. I have been
>considering using an "On-The-Glass" MultiBand antenna (2M / 440Mhz) on
>this car. Has anyone done this? what kind of results?

well, i'm using an on-glass dual-band antenna on my jeep wrangler and
i've had very good results with it. will the on-glass antenna perform
the same as a 5/8 wave mounted on a metal automobile roof? nope...but
their performance is better than you might think. swr is virtually
flat on both 2m and 440 and power our is 48+ watts on 2m and 33+ watts
on UHF.

73,
rich, n9dko

584. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 00:25:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bu229a$nm6$1@hercules.btinternet.com>
Source record: 101906

> Aluminum strip, 10 inches wide and .006 inches thick as a dipole.
>
> Any special considerations?
>
> How can I predict the band width?
>
========================

None. And no need to predict bandwidth. It will be more than wide enough.

585. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 00:58:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bu247ormv1@hercules.btinternet.com>
Source record: 101907

Richard, it's only a model - and it WORKS very well.

"If you know of a better hole then go to it." - Bruce Bainsfather,
newspaper cartoonist, caption of a cartoon in the trenches, mud and
shrapnel, Belgium, WW1. ;o)

Yours, Reg.
==========

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:6137-40045A46-416@storefull-3254.bay.webtv.net...
> Reg Edwards, G4FGQ wrote:
> "It has a uniformly distributed radiation resistance according to the
> length of the coil form."
>
> That may be the case of "treating" radiation resistance as if uniformly
> distributed. Radiation resistance may be defined as the resistance which
> would take the same power as that radiated when placed at the
> high-current point of the antenna.
>
> While a transmission line of uniform cross section may have uniform
> inductance and capacitance per unit length, it is unlikely that an
> antenna has uniform capacitance per unit length. Electric field lines of
> force have a varying concentration along equal small segments of wire
> length. It`s usually a function of distance between wires and this
> varies in an antenna because the antenna is meant to radiate.
>
> Variation of capacitance along an antenna causes a variation in surge
> impedance along the antenna, but a useful average can be used for
> calculations. Straight wire or coiled as in a rubber ducky, an antenna
> is subject to this variation in capacitance and surge impedance.
>
> Best regards, Richard Harrison, KB5WZI
>

586. Re: Outbacker plus spring?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 01:42:02 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <341Nb.26016$v16.6507@bignews5.bellsouth.net>
Source record: 101908

"Dusty" <dusty@nowhere.com> wrote in message
news:4003807f@news.comindico.com.au...
> I've got a spring on my home brew job thats mounted on the bullbar but
> it travels many 1000's of K's on rough dirt roads. It's not a bad idea to
> dampen the vibration.
>
Have you ever watched on a meter what the SWR does while your antenna swings
and sways with Sammy Kaye; it goes thru the roof! Yes, there are a few
instances where a spring is a must, but if I can avoid using one, I do.

73

Jerry
> >
>
>

587. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 01:47:49 UTC
From: Roger Gt <Xenot@pacbell.net>
Message-ID: <9d1Nb.10234$Qx2.3401@newssvr25.news.prodigy.com>
Source record: 101909

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040113191630.08055.00002964@mb-m16.aol.com...
> >Aluminum strip, 10 inches wide and .006 inches thick as a dipole.
>
> How long?
>
> >Any special considerations?
>
> How long you are to make your dipole, and what frequency do you intend to
> operate?
>
> >How can I predict the band width?
>
> In general wider and thicker produce wider bandwidth. Short dipoles or
long
> ones in terms of wavelength may have reduced bandwidth because of
limitations
> of matching devices.
> As you know, bandwidth does not mean a good antenna. A resistor can
have a
> huge bandwidth, but radiate very little.
> 73 Gary N4AST

40 meters is the primary, there is enough space to do a full length dipole with folded ends (about 12 to 15 feet. If it works I wanted to put a 20 meter dipole in the other side about three feet higher up the rafters.

I am familiar with wire antennas, and matching, but have never tried using sheet stock as an antenna below 10 meters, and that was is an apartment.

588. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 02:19:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i79900dbj9i2au6h1tuiome70mbi4mhqv1@4ax.com>
Source record: 101910

On Wed, 14 Jan 2004 00:01:54 GMT, "W3JDR" <joe@roccis.com> wrote:

>because all of the power delivered to the antenna is radiated,
>any increase in radiated power
>due to some change in the configuration of the antenna is impossible.
>Therefore, this constitutes proof that your claim of gain with the EH configuration is
>invalid."
>
>I disagree. I think all you've asserted is conservation of energy, not
>whether or not the antenna has gain.

Hi Joe,

Walter has asserted that there is a constancy of power confirmed by
total integration. Any increase in radiation with the same applied
power is impossible by definition. One can observe a gain relative
between two antennas and this would require significant differences in
the two patterns. However, the data from the FCC methods of testing
prove there is no difference. Except, of course, by that due to the
nearby resonant structure which perturbs the EH field slightly (which,
when wholly integrated reveals the familiar low efficiency of the EH
relative to the nearby standard tower).

73's
Richard Clark, KB7QHC

589. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 02:49:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bu2ao7jep1@titan.btinternet.com>
Source record: 101911

(Rhetorical Question)
> Given that the coil section resembles a high-Zo transmission line with
> reflections, how can the current into the coil section be equal in
> magnitude and phase to the current out of the coil section?
==========

(Rhetorical Answer)
It can't. Are you trying to insinuate I've ever said that it could?

But I'm pleased to see you are getting nearer to understanding how to model a loading coil in an antenna wire. After all, the concept is simplicitly itself to any electrical engineer worth his salt. And it's intuitively obvious it's the only way of going about the job. Your 'cosine formula' automatically comes out in the wash. As Holmes said to Watson. ;o)

Incidentally, from memory, in the 1950's, in the IEEE "Reference Data for Radio Engineers" there was an article on short helically-wound antennas, giving number of turns for a given height of 1/4-wave resonance. The author was on the right track. But there were errors in the formulae which had not been arrived at by analytical means.

Reg, G4FGQ

590. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 02:58:25 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4004AF52.54EA618B@shaw.ca>
Source record: 101912

Reg Edwards wrote:
>
> > Aluminum strip, 10 inches wide and .006 inches thick as a dipole.
> >
> > Any special considerations?
> >
> > How can I predict the band width?
> >
> ========================
>
> None. And no need to predict bandwidth. It will be more than wide enough.

None? Unless this is an attic antenna, wind will be a big consideration,
and possibly noise (acoustic) as well. I don't know all the laws of static induction
into
an antenna, but it seems to me that you might also want to watch for arcing
in connectors etc.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

591. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 03:13:25 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040113221325.04265.00003094@mb-m29.aol.com>
Source record: 101913

Esteemed Antenna Gentlemen.

I am sorry I could not participate in the heated discussions and do experiments and measurements in the past few weeks. I was QRL, weather was lousy and I caught the nasty flu that I hope to shake off in the South next few days.

It looks to me like some made statements (contrary to facts) and now are defending them or going all out to prove they are right. Rather than concentrating on the original question, is the current in the antenna loading coil in typical mobile quarter wave whip same or different on its ends, we are drifting to side shows like how precisely you measured it, what is your guess, theory, toroids etc.

To recap, W9UCW measured, I witnessed and new that bottom of the coils get hotter than top ergo, more current at the bottom. W8JI attacked that it can't be, he stated it HAS to be equal, Kirchoff, bla, bla. (Now it is maybe not so equal, length of coil, stray capacitance, phase of moon, but it is the same, even when it isn't. Go figure.)

W8JI also proved that he lied when stated that he measured thousands of (what?) coils and they all had equal current. Now he posted some measurements and proved that he was wrong, he measured differences. He doesn't describe his setup, and as Cecil explained, one can rig the coils to have the same current, but in a center loaded resonant quarter wave vertical - no way.

Now we drifted to ferrites, we guessed Roy's difference and he measured it, THERE WAS A DIFFERENCE 5% at the base. Is difference not a difference?

The first experiment I will do is the "thermal test" - I will take Hustler 80m coil, I have two fishing tank LCD strip thermometers ($2.50 in any pet store) I will stick them on the coil at the bottom, at the top, or in between. I will fire TX to it and video tape the change in temperature with timer running. Really smart gurus should be able to calculate the power and currents from that. If gurus object that thermometers are disturbing the coil. Then the thermal test No2 will be done. I will put higher power to it and see the coil unshrink the tubing from the bottom up. I have done it before and it made me true believer in the phenomena.

Next test will be with thermocouple ammeters and next with current probe similar (but better) as W8JI used on his tests and showed on the web page.

Then we will try to correlate it with our "obscure theories", then we will write the nice, detailed article that hopefully will help to understand the thing for the other side of the fence gurus.

The proof is in reality, W9UCW done it, but that CAN'T BE?

Thanks Cecil and others for Herculean task and effort in digging out references and trying to 'splain it. Looks like Krause and others are wrong, but old Belrose error perpetuated in ARRL Antenna Book is right, oh and EZNEC modeling 0 size coil and loading stub differently is right too. W8JI used it as a proof that current can be increasing from the base up to the coil. How come that straight piece of wire (as antenna) can exhibit different current along its length (where is Kirchoff) but when you insert the coil and retune it, that coil "refuses" for current to taper?
Take the coaxial wound chokes, coil wound of coax at the antenna terminals can reduce the current flowing in the shield. We know that, or are we going to deny that? How is that COIL different that it has different RF current at its ends? That you can check even with MFJ current meter.

I hope that weather gets better, flu goes away and life gives me more time. In the mean time, if you are contemplating to get TenTec Orion, read my first part of review on my web www.K3BU.us

73 Yuri

592. Re: Outbacker plus spring?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 03:21:06 UTC
From: Dusty <dusty@nowhere.com>
Message-ID: <4004b5a1$1@news.comindico.com.au>
Source record: 101914

"Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
news:341Nb.26016$v16.6507@bignews5.bellsouth.net...
>
> "Dusty" <dusty@nowhere.com> wrote in message
> news:4003807f@news.comindico.com.au...
> > I've got a spring on my home brew job thats mounted on the bullbar but
> > it travels many 1000's of K's on rough dirt roads. It's not a bad idea
to
> > dampen the vibration.
> >
> Have you ever watched on a meter what the SWR does while your antenna
swings
> and sways with Sammy Kaye; it goes thru the roof! Yes, there are a few
> instances where a spring is a must, but if I can avoid using one, I do.

No I can't say I have Jerry but I'll put one in line for a gander with and
without the spring.

593. Re: 6 mil thick by 10 inch wide Aluminum sheet for an antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 03:39:09 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bu2dkr$5s0$1@news3.infoave.net>
Source record: 101915

No to your question, but why? Wire would work every bit as well..

"Roger Gt" <Xenot@pacbell.net> wrote in message
news:wv_Mb.10197$gD7.9618@newssvr25.news.prodigy.com...
> Some time ago I obtained a roll of 6 mil thick 10 inch wide aluminum sheet
> at a bargain. I intended to use it for an antenna in my attic. I would
use
> plastic clothes hangers as supports stapled to the rafters.
>
> When I mentioned I was finally going to get it installed, a friend told me
> that the sheet won't make a good antenna. There is plenty of room for a
> bent dipole so I ask why he thought it wouldn't work. His answer was that
> the thin edges would have a corona discharge and might set fire to the
> house. I considered it nonsense, but I wonder -- Running only 100 Watts.
>
> Is there any reason that a thin sheet of the proper length would be
> unsuitable as an antenna for "indoor" use?
>
> Thanks for you insightful comments.
>
> K7DUP
>
>

594. Re: Antenna advice - "Plastic Car"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 03:42:28 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bu2dr4$5q8$1@news3.infoave.net>
Source record: 101916

SWR has nothing in the world to do with how you get out.

Hence is no indication to anyone as to the suitability of an antenna.

"Rich" <me@thisisnotarealaddress.com> wrote in message
news:jq290091ojsqubdvl8qcs2o0kfvdhnd6ac@4ax.com...
> On Tue, 13 Jan 2004 02:31:31 GMT, John <res0b06f@verizon.net> wrote:
>
> >Greetings all
> >I have a 87 Fiero GT - V6 Mid-Engined Plastic car. I have been
> >considering using an "On-The-Glass" MultiBand antenna (2M / 440Mhz) on
> >this car. Has anyone done this? what kind of results?
>
> well, i'm using an on-glass dual-band antenna on my jeep wrangler and
> i've had very good results with it. will the on-glass antenna perform
> the same as a 5/8 wave mounted on a metal automobile roof? nope...but
> their performance is better than you might think. swr is virtually
> flat on both 2m and 440 and power our is 48+ watts on 2m and 33+ watts
> on UHF.
>
> 73,
> rich, n9dko
>

595. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 03:47:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ume9001be7kdk961iroofctdcjifo2evo9@4ax.com>
Source record: 101917

On 14 Jan 2004 03:13:25 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:

>Now we drifted to ferrites, we guessed Roy's difference and he measured it,
>THERE WAS A DIFFERENCE 5% at the base. Is difference not a difference?

Sheesh,

For RF work you can get a difference of that much measuring the same
thing twice! (But only if you are extremely careful.)

What does that prove except you are having either a rough time, or
delusions of accuracy - take your pick as it seems both side of this
argument are looking through the bottom of the same glass.

73's
Richard Clark, KB7QHC

596. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 04:02:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v4f900d1899utrguhdju47mnle76aqchhv@4ax.com>
Source record: 101918

On 14 Jan 2004 03:13:25 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:

> How come that
>straight piece of wire (as antenna) can exhibit different current along its
>length (where is Kirchoff)

Sheeshï¿½,

Kirchhoff is explicitly violated by employing his laws at wavelength
scales. Kirchhoff NEVER said anything about current into/out-of a
device (which by necessity is of some obvious dimension). Rather, his
current law speaks of a POINT (which is dimensionless). In failing to
have come to terms with this simple issue, the entire course of, what,
600 postings yields little more than white noise.

If you want to talk Kirchhoff and nets, get your definitions right.
It is his voltage law that describes in terms of devices (across a
resistor, between two points, what have you).

Pretense to scholastic work begins with observing the first principles
of those you quote.

73's
Richard Clark, KB7QHC

597. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 04:08:06 UTC
From: Roger Gt <Xenot@pacbell.net>
Message-ID: <Gg3Nb.9601$g5.3039@newssvr27.news.prodigy.com>
Source record: 101919

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:4004AF52.54EA618B@shaw.ca...
> Reg Edwards wrote:
> >
> > > Aluminum strip, 10 inches wide and .006 inches thick as a dipole.
> > > Any special considerations?
> > > How can I predict the band width?
> > ========================
> > None. And no need to predict bandwidth. It will be more than wide
enough.
>
> None? Unless this is an attic antenna, wind will be a big consideration,
> and possibly noise (acoustic) as well. I don't know all the laws of
static induction
> into
> an antenna, but it seems to me that you might also want to watch for
arcing
> in connectors etc.
>
> Irv VE6BP

IN the attic... Of course, and there will be no connectors.
Direct termination to the Sheet via lugs.
Insulated by plastic dowels, about 4 inches (~100mm) long.

I will also install two feet above the House wiring, ducts etc.

So I'll let you know how it works. In a while.

Thanks, Every one!

598. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 04:19:32 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <4j19001hurbamtalnidjp8mmgf6p815oqe@4ax.com>
Source record: 101920

The following is Ted Hart's response to me:

----- Original Message -----
From: Ted
To: Walter Maxwell
Cc: Bill Ronay
Sent: Tuesday, January 13, 2004 5:50 PM
Subject: Re: EH Antenna

Hi Walter,

Every one is entitled to their opinion - but accurate test data is irrefutable.

Comments to your comments are in your text below- - - -

Ted
----- Original Message -----

From: Walter Maxwell
To: Ted
Sent: Tuesday, January 13, 2004 3:20 PM
Subject: Re: EH Antenna

Hello Ted,

Thank you for your response to my note to Bill.

Ted, I'm sorry to have rained on your parade, but I have not seen any proof that your antenna outperforms any Hertzian antenna as you claim. As I read in the 'Article' appearing on your web site, you are claiming that when your 'EH' is at 1/4 wl above ground it has a 2.25 dB gain over a standard 1/4 wl vertical.

Ted: TRUE

I have reviewed very carefully the engineering document prepared by the broadcast consulting firm of Graham Brock, Inc., who performed extensive field strength measurements on your EH antenna at experimental WK4XVQ in Eatonton, GA, operating on 1520 KHz. To summarize very briefly, their report first shows an average of approximately 1.1 dB

Ted: (0.84) dB

less power radiated than the reference standard antenna. Second, it is noted that the test antenna was atop a 90-foot tower.

Ted: The tower was 90 feet, the EH Antenna was below that.

The EH Antenna was at was coupled to the standard WKVQ tower during the measurements, which is very likely the reason the azimuthal plot of your EH

antenna is scalloped rather than circular.

Ted: Pattern distortion was due to a power line

I'm sure you're aware that nearby objects that are resonant at the measurement frequency will distort the readings and thus distort the resulting data. What was done at the feedpoint of the WKVQ antenna to eliminate the possibility of its becoming a part of the antenna system? Were the input terminals shorted? Left open?

Ted: Open

Were any measurements made under both of these conditions to determine whether the the WKVQ antenna was performing as a parasitic radiator?

From the measurements performed by the Graham Brock engineers the resulting data shows evidence that rather than achieving gain over a standard antenna, the EH antenna performs less well than the standard antenna.

Ted: Read the rest of the story - the center of the EH Antenna was at 0.1 wavelengths above gound - if it were raised to 1/4 wavlength then it would be what I claim, 2.25 dB gain over a standard 1/4 wl vertical.

At this point I'd like to repeat what I stated earlier concerning the concept of your EH antenna's performance resulting from changing the time relationship between the E and H fields to increase the radiation. What I stated earlier is that the development of the continuous alternating E and H fields cannot be changed in any way--not by changing the phase of the source current, or by any other means. The laws set forth by electromagnetic theory are immutable. And I also repeat--the antenna you believe to be prforming in a new manner is simply a shortened, inductively loaded Hertzian antenna performing in its conventional manner.

Ted: You are wrong. If you were correct, the effective radiation resistance would be a fraction of an ohm, not a much much higher resistance as indicated by the measured bandwidth.

I believe you should consider the following academic treatment that should help convince you that you cannot get additional power for nothing.

Assume a 1/4 wl vertical antenna with zero ohmic resistance working over perfect ground. In this condition the only resistance in the system is radiation resistance, and ALL power delivered to the antenna is radiated. Consider now an imaginary hemisphere surrounding the antenna. When power P is delivered to the antenna and all of the power radiated is then integrated over the entire hemisphere, the integrated power will equal power P exactly. Now, because all of the power delivered to the antenna is radiated, any increase in radiated power due to some change in the configuration of the antenna is impossible. Therefore, this constitutes proof that your claim of gain with the EH configuration is invalid.

Ted: Again, you do not present a valid argument. What you say is true, but not germain to the issue. Consider antenna pattern gain, not total radiated power - - - The purpose of an AM Broadcast station is to provide maximum signal to the

listener on the ground and reduce skywave as much as possible.

You say you have three patents on the EH. In so doing you have accomplished what many before you have accomplished--outwitting the patent examiner who lacked sufficient knowledge of the subject to recognize an invalid concept in the patent application, and granted the patent. You may not have been aware that hundreds of patents have been declared invalid for this specific reason.

Ted: But one criteria is proof of performance - and I presented that to the examiner.

I have no doubt that you honestly believe that your EH concept is correct and valid, and that your antenna is performing within that concept. However, now that you are made aware of the invalidity of the concept, and if you continue to manufacture and sell your antenna as advertised to perform as you say it does, then you must also come to believe you would be misleading the public. In this litigious society don't be surprised if someday an attorney hands you a paper claiming fraud. I would not like to see that happen.

Ted: No one can claim fraud if the antenna does what I say it does.

Finally, if you still choose to believe my comments are incorrect, then I would suggest you consult with other RF engineers to obtain their expert opinion, many of whom have far greater intellect on this subject than I.

Ted: I agree that you do not have a complete understanding of antennas.

You can find some eminently qualified engineers in the news group rraa (rec.radio.amateur.antenna) by simply going to 'find' and inserting 'EH'.

Cordially,

Walt, W2DU

Ted: Please learn to read before you criticize - every thing I say about the EH Antenna is valid.

Ted: Please do not respond - there is nothing you say that is valid and I do not wish to waste my time trying to teach you something because you have such a closed mind.

Ted

Walt here now:

It's past midnight now, but I'll have a short response to Ted's above comments tomorrow.

Walt, W2DU

599. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 04:28:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4004c5fd_3@corp.newsgroups.com>
Source record: 101921

Reg Edwards wrote:
> (Rhetorical Question)
>
>>Given that the coil section resembles a high-Zo transmission line with
>>reflections, how can the current into the coil section be equal in
>>magnitude and phase to the current out of the coil section?
>
> (Rhetorical Answer)
> It can't. Are you trying to insinuate I've ever said that it could?

Nope, but others have asserted such. What would be a ballpark figure
for the Z0 of a bugcatcher loading coil?

> Incidentally, from memory, in the 1950's, in the IEEE "Reference Data for
> Radio Engineers" there was an article on short helically-wound antennas,
> giving number of turns for a given height of 1/4-wave resonance. The author
> was on the right track. But there were errors in the formulae which had not
> been arrived at by analytical means.

I just happen to have a 1957 copy from college days. Interestingly, it has
a velocity of propagation formula for the helix that includes axial velocity.
Didn't someone say axial velocity doesn't control the speed of propagation
for a loading coil?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

600. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 04:33:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rdh900d7kik23kl5m4efbfdijnp2g0ods6@4ax.com>
Source record: 101922

On Wed, 14 Jan 2004 04:19:32 GMT, Walter Maxwell <w2du@iag.net> wrote:

>Ted: You are wrong. If you were correct, the effective radiation resistance
>would be a fraction of an ohm, not a much much higher resistance as indicated by
>the measured bandwidth.
>

The "measured bandwidth" reveals the proximity of earth in series with
a small radiation resistance. Lower the eh to ground level and you
would have a multiband antenna? (Quick, print this on the side of the
box and double the price!)

73's
Richard Clark, KB7QHC

601. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 04:38:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4004c84f$1_3@corp.newsgroups.com>
Source record: 101923

Richard Clark wrote:
> What does that prove except you are having either a rough time, or
> delusions of accuracy - take your pick as it seems both side of this
> argument are looking through the bottom of the same glass.

When measuring only current magnitude, to detect a 5 degree phase
shift through a base loading coil requires differentiation between
1 amp of RF on one end and 0.996 amps of RF on the other end. Are
you saying that the measured 1 amp at both ends might be suspect? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

602. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 05:59:33 UTC
From: tdonaly@aol.com
Message-ID: <20040114005933.14163.00002717@mb-m14.aol.com>
Source record: 101924

Cecil wrote,
>
>Strangely enough, that won't do it, Jim. A coil equivalent to 1/2WL
>reverses the phase of the current such that current is flowing into
>both ends at the same time. According to some gurus, that violates
>Kirchhoff's laws. But Kraus shows how phase-reversing coils are
>used in collinear arrays. Reckon Kraus knows he is violating Kirchhoff's
>laws?
>
>For a real-world air-core coil to exhibit identical currents at the
>input and output, it would have to be one wavelength long, lossless,
>and non-radiating. That's a pretty tall order just to support an
>old wives' tale. :-)
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

You need to go back to school, Cecil. Anyone can stick a coil -
or a capacitor for that matter - between two similar antiresonant circuits
and find a frequency where the two circuits are in phase without resorting
to calling the coil - or capacitor - 1/2WL. There's also a frequency where
the two circuits are 180 deg. out of phase, but current isn't flowing into
two ends of the coil - or capacitor - at the same time. I hope
there's no on this newsgroup gullible enough to take your
fractured circuit theory seriously.
73,
Tom Donaly, KA6RUH

603. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 06:03:26 UTC
From: tdonaly@aol.com
Message-ID: <20040114010326.14163.00002718@mb-m14.aol.com>
Source record: 101925

Jim Kelly wrote,

>
>Cecil Moore wrote:
>>
>> Jim Kelley wrote:
>> > Maybe it's a half wavelength long? ;-)
>
>> For a real-world air-core coil to exhibit identical currents at the
>> input and output, it would have to be one wavelength long, lossless,
>> and non-radiating. That's a pretty tall order just to support an
>> old wives' tale. :-)
>
>I happily stand corrected.
>
>73 de jk
>
>

Pathetic.
73,
Tom Donaly KA6RUH

604. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 07:07:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4004eb5d_1@corp.newsgroups.com>
Source record: 101926

Tdonaly wrote:
> There's also a frequency where
> the two circuits are 180 deg. out of phase, but current isn't flowing into
> two ends of the coil - or capacitor - at the same time. I hope
> there's no one on this newsgroup gullible enough to take your
> fractured circuit theory seriously.

Kraus says: "It is generally assumed that the current distribution
of an infinitesimally thin antenna is sinusoidal, and that the phase
is constant over a 1/2WL interval, changing abruptly by 180 degrees
between intervals."

If I locate a loading-coil such that the phase change node is
in the middle of the coil, current-in will be 180 degrees out of
phase with current-out. In a two-terminal series circuit, if the
net current-in is 180 degrees out of phase with the net current-out,
those two currents are either flowing into the coil at the same time
or flowing out of the coil at the same time 1/2 cycle later.

Consider a 1.5WL helical dipole. The two net currents at 0.4WL and 0.6WL
are flowing in opposite directions.

Consider something even more bizarre. If the coil is exactly 1/2WL and
each end is located at a current node, assuming the forward current is
equal to the reflected current (Kraus' assumption) then zero net current
is flowing in and out of both ends of the coil even though there is a
current maximum point in the middle of the coil. This is how Kraus'
phase-reversing coil works in his collinear array antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

605. Re: 6 mil thick by 10 inch wide Aluminum sheet for an antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 08:14:45 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0401140014.3dadb28b@posting.google.com>
Source record: 101927

> > Some time ago I obtained a roll of 6 mil thick 10 inch wide aluminum sheet
> > at a bargain. I intended to use it for an antenna in my attic.

Hi,
it might be interesting to make a magnetic loop from the sheet. It
should behave like a 5 inch dia aluminum tube according to theory, so
good efficiency can be expected.

73 Ivan OK1SIP

606. FS: tower and antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 10:43:56 UTC
From: "David J. Windisch" <davidw@copper.net>
Message-ID: <4003c596$1_7@newsfeed.slurp.net>
Source record: 101928

FS: tower and antennas

Hi, all concerned:

I have a tower and antennas for sale, in Cincinnati, OH.
The package includes:

1. 80-ft Heights aluminum tower, s/s bolts, locking nuts, and ro-shelf, less concrete base and base rods (I used 1-1/4in threaded steel rods available from either Home Depot or Lowes in 6 cu-yds of 5-bag concrete)

2. 20-ft al mast, 2-in OD, 1.5-in ID

3. CC X7 5 yrs old, in air 2

4. most of a CC 40M rotatable dipole (could be put on X7 boom)

5. CREATE worm-drive rotator, and lotsa rotator cable

6. most of a HyGain 2L 40M

7. lotsa coax

All is on or near the ground for inspection, and good to go for $2500.00 ono. You pick up, or maybe I can get my son to help, for a fee, with his pickup truck.

I had a stroke last spring (no sympathy needed, just your prayers, tks) and simply can not work up the enthusiasm any more for things past verticals and wires in the trees.

Got a ton of other stuff good for homebrewers too ..

Lemme know. 513-674-7202 eves and all day weekends eastern time.

Thanx, and God bless.

73, Dave, N3HE

607. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 11:01:47 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <vk9Nb.19797$dp1.17969@nwrdny02.gnilink.net>
Source record: 101929

Richard:

"One can observe a gain relative
> between two antennas and this would require significant differences in
> the two patterns. "

I believe this is in line with what Ted says...the EH purportedly has vertical adjustable pattern depending on the length to diameter ratio of the cylinders.

"However, the data from the FCC methods of testing
> prove there is no difference. "

Well, that's the way I interpreted the data too. However, I don't believe this was a 3 dimensional measurement, was it?

Joe
W3JDR

608. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 11:28:01 UTC
From: kashe@rahul.net
Message-ID: <so9a00pbq4lpbn9cact380339t5906pq07@4ax.com>
Source record: 101930

On Wed, 14 Jan 2004 04:08:06 GMT, "Roger Gt" <Xenot@pacbell.net>
wrote:

>
>"Irv Finkleman" <finkirv@shaw.ca> wrote in message
>news:4004AF52.54EA618B@shaw.ca...
>> Reg Edwards wrote:
>> >
>> > > Aluminum strip, 10 inches wide and .006 inches thick as a dipole.
>> > > Any special considerations?
>> > > How can I predict the band width?
>> > ========================
>> > None. And no need to predict bandwidth. It will be more than wide
>enough.
>>
>> None? Unless this is an attic antenna, wind will be a big consideration,
>> and possibly noise (acoustic) as well. I don't know all the laws of
>static induction
>> into
>> an antenna, but it seems to me that you might also want to watch for
>arcing
>> in connectors etc.
>>
>> Irv VE6BP
>
>IN the attic... Of course, and there will be no connectors.
>Direct termination to the Sheet via lugs.
>Insulated by plastic dowels, about 4 inches (~100mm) long.
>
>I will also install two feet above the House wiring, ducts etc.
>
>So I'll let you know how it works. In a while.
>
>Thanks, Every one!
>

Just in case the concern about a fire hazard from arcing or
corona discharge is a possiblity, it might not be a bad idea to blow a
few bucks on a smoke detector up there.

609. Re: Outbacker plus spring?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 11:54:18 UTC
From: "Dr. Daffodil Swain" <wa4jm@earthlink.net>
Message-ID: <K5aNb.6948$q4.4118@newsread3.news.atl.earthlink.net>
Source record: 101931

depends on the spring. A quaility one will have a fat braid up the middle.

"Dusty" <dusty@nowhere.com> wrote in message
news:4004b5a1$1@news.comindico.com.au...
>
> "Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
> news:341Nb.26016$v16.6507@bignews5.bellsouth.net...
> >
> > "Dusty" <dusty@nowhere.com> wrote in message
> > news:4003807f@news.comindico.com.au...
> > > I've got a spring on my home brew job thats mounted on the bullbar but
> > > it travels many 1000's of K's on rough dirt roads. It's not a bad idea
> to
> > > dampen the vibration.
> > >
> > Have you ever watched on a meter what the SWR does while your antenna
> swings
> > and sways with Sammy Kaye; it goes thru the roof! Yes, there are a few
> > instances where a spring is a must, but if I can avoid using one, I do.
>
> No I can't say I have Jerry but I'll put one in line for a gander with and
> without the spring.
>
>

610. Re: Antenna advice - "Plastic Car"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 12:56:26 UTC
From: Rich <me@thisisnotarealaddress.com>
Message-ID: <ntea00dfl948vsp8crdoupgl1l28houq1c@4ax.com>
Source record: 101932

On Tue, 13 Jan 2004 22:42:28 -0500, "w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote:

>SWR has nothing in the world to do with how you get out.
>
>Hence is no indication to anyone as to the suitability of an antenna.

its an indication of how well the antenna is matched to the transmitter. a higher swr most likely results in reduced output wattage. reduced output power most likely results in reduced range. all things considered i'd rather have a lower swr than higher.

73,
rich, n9dko

611. Re: 6 mil thick by 10 inch wide Aluminum sheet for an antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 14:53:50 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <2KcNb.48467$Rc4.198021@attbi_s54>
Source record: 101933

Install it with end insulators, for some applications a small piece of
dowel with the aluminum wrapped on it will make a suitable insulator.
Then tie off the dowel in the attic with 30 pound monofiliment fishing line.

The 10 inch width will give a wider resonance than a wire, assuming you
will be using it at 20 meters or lower wavelengths.

For an attic installation use nuts/bolts/washers to fasten the
transmission line to the antenna. Soldering to Aluminum requires much
more than simple solder.

Deacon Dave, W1MCE

Roger Gt wrote:
> Some time ago I obtained a roll of 6 mil thick 10 inch wide aluminum sheet
> at a bargain. I intended to use it for an antenna in my attic. I would use
> plastic clothes hangers as supports stapled to the rafters.
>
> When I mentioned I was finally going to get it installed, a friend told me
> that the sheet won't make a good antenna. There is plenty of room for a
> bent dipole so I ask why he thought it wouldn't work. His answer was that
> the thin edges would have a corona discharge and might set fire to the
> house. I considered it nonsense, but I wonder -- Running only 100 Watts.
>
> Is there any reason that a thin sheet of the proper length would be
> unsuitable as an antenna for "indoor" use?
>
> Thanks for you insightful comments.
>
> K7DUP
>
>

612. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 15:04:18 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <STcNb.14457$VS4.455712@bgtnsc04-news.ops.worldnet.att.net>
Source record: 101934

Cecil Moore wrote:

<snip>

> Kraus says: "It is generally assumed that the current distribution
> of an infinitesimally thin antenna is sinusoidal, and that the phase
> is constant over a 1/2WL interval, changing abruptly by 180 degrees
> between intervals."

Kraus says something quite similar in the second edition of "Antennas". (I believe you are quoting from the third edition, which was co-authored by someone else.)

However, Kraus is merely being careless with terminology. (It is likely that he did not fully anticipate that he would be quoted out of context.) If one studies the accompanying diagrams it is clear that Kraus is simply referring to the standard functional form of a sinusoidal curve. For reasons not clear to me he decides to call the natural progression from positive to negative as the sine function passes through zero an abrupt 180 degree phase change. This is misleading at best.

A true phase change would be, for example, an abrupt transition from +1 to -1 in the sine function. This sort of phase change is used in numerous communication schemes, such as PSK31.

<snip>

> Consider something even more bizarre. If the coil is exactly 1/2WL and
> each end is located at a current node, assuming the forward current is
> equal to the reflected current (Kraus' assumption) then zero net current
> is flowing in and out of both ends of the coil even though there is a
> current maximum point in the middle of the coil. This is how Kraus'
> phase-reversing coil works in his collinear array antenna.

Why is this even the least bit bizarre? Your favorite example of an ideal transmission line with a perfectly reflecting termination shows exactly the same thing. Are you suggesting that any node on an ideal standing wave cuts off everything further downstream? If so, then you might want to consider Tom's suggestion and head back to school.

73,
Gene
W4SZ

613. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 17:15:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400579bf_4@corp.newsgroups.com>
Source record: 101935

Gene Fuller wrote:
>> Consider something even more bizarre. If the coil is exactly 1/2WL and
>> each end is located at a current node, assuming the forward current is
>> equal to the reflected current (Kraus' assumption) then zero net current
>> is flowing in and out of both ends of the coil even though there is a
>> current maximum point in the middle of the coil. This is how Kraus'
>> phase-reversing coil works in his collinear array antenna.
>
> Why is this even the least bit bizarre? Your favorite example of an
> ideal transmission line with a perfectly reflecting termination shows
> exactly the same thing. Are you suggesting that any node on an ideal
> standing wave cuts off everything further downstream?

No, no, no. I'm saying that if Tom finds current flowing into both ends of a coil at the same time to be a bizarre thought, then a coil with no current flowing into the ends at all, even though current is maximum at the center of the coil, would be an even more bizarre thought *FOR HIM*. Tom seems to have a sacred cow that he doesn't want to barbecue.

Assume a 180 degree phase shifting coil with a current node at each end as I described above. Also assume one misses the current nodes by 6 degrees and that the maximum current loop is 1 amp. The current at one end of the coil will be ~0.1 amp at zero degrees while the current at the other end of the coil is ~0.1 amp at 180 degrees. That means current is flowing into both ends of the coil at the same time and then flowing out of both ends at the same time 1/2 cycle later. Tom calls anyone who believes that "gullible" and that tells me I should go back to school. I am merely demonstrating the laws of physics operating outside of Tom's sacred cow box.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

614. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 17:17:24 UTC
From: richardharrison@webtv.net
Message-ID: <24561-400579A4-39@storefull-3257.bay.webtv.net>
Source record: 101936

Walter Maxwell wrote:
"To anyone who believes the W5QJR EH conceptis valid."

OK. I read the first page: "Welcome to the Wonderful World of EH Antennas". It said nothing of why I should be interested. Why convert an existing broadcast antenna to EH?

FCC has a publication, "Rules of Good Engineering Practice for Standard Broadcast Stations" which includes Mv/m at 1 mile on a radial over perfect earth from a vertical antenna of various heights. It shows about 195 mV/m for a 1/4-wave grounded vertical.

This can be adjusted for any power or diistance from the sender:

E = Eo sq rt P/d

Eo = 195 mV/m for the 1/4-wave antenna at 1 mile

P = the actual radiated power

d = distance from antenna in miles

The mV/m at a mile assumes a perfect ground and a perfect antenna ground system. FCC says 120 radials equally spaced and 1/2-wavelength long are its standard. Efficiency typically exceeds 95%.

If the vertical radiator is higher (longer) than !/8-wavelength, the 150 mV/m at 1 mile, required minimum efficiency, can still be met with 120 radials on the earth that are only 1/4-wavelength long. The reduction in efficiency is small.

Nobody has perfect ground unless he is at sea. For imperfect ground, the FCC publishes "Ground Wave Propagation Curves" for various soil conductivities.

In the FCC millivolt per meter numbers for vertical antennas of various heights, the field strength only increases 5% in going from very short to a full 1/4-wave height. This requires the near perfect ground. A 3/8-wave radiator only has a 15% advantage over a very short radiator.

If the radiator is a thin wire, bandwidth may be only + or - 1% of the wire`s resonant frequency. Broadcast stations use towers of substantial cross section as antennas. These provide several percent of bandwidth and allow full audio range in the medium wave band.

A short antenna has low radiation resistance and high capacitive reactance. This requires tuning out the large capacitive reactance (small capacitance) with an equally large inductive reactance (large

reactor), and matching the very low drivepoint resistance of an end-driven vertical to the higher impedance sending circuit. Resistance involved in neutralizing reactance and matching the antenna to the source is likely to be lossy for the too-short antenna. Walter has already pointed this out.

Why would the EH antenna have interest?

Best regards, Richard Harrison, KB5WZI

615. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 17:32:26 UTC
From: richardharrison@webtv.net
Message-ID: <24561-40057D2A-45@storefull-3257.bay.webtv.net>
Source record: 101937

Joe, W3JDR wrote:
"However, I don`t believe this was a 3 dimensional measurement, was it?"

Purpose of 3-D pattern checks would present high-angle radiation if it exists as a possible source of night time interference. Primary service only includes non-interfered ground wave coverage of a station.

Best regards, Richard Harrison, KB5WZI

616. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 17:54:01 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40058239.1E86FE3F@uci.edu>
Source record: 101938

Tdonaly wrote:
>
> Jim Kelly wrote,
>
> >
> >Cecil Moore wrote:
> >>
> >> Jim Kelley wrote:
> >> > Maybe it's a half wavelength long? ;-)
> >
> >> For a real-world air-core coil to exhibit identical currents at the
> >> input and output, it would have to be one wavelength long, lossless,
> >> and non-radiating. That's a pretty tall order just to support an
> >> old wives' tale. :-)
> >
> >I happily stand corrected.
> >
> >73 de jk
> >
> >
>
> Pathetic.
> 73,

Pathetic, best regards?

Please elaborate.

73, Jim AC6XG

617. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 18:30:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k22b00th482soc684g10g6qssh5i9c37u6@4ax.com>
Source record: 101939

On Wed, 14 Jan 2004 11:01:47 GMT, "W3JDR" <joe@roccis.com> wrote:
>Richard:
>
>"One can observe a gain relative
>> between two antennas and this would require significant differences in
>> the two patterns. "
>
>I believe this is in line with what Ted says...the EH purportedly has
>vertical adjustable pattern depending on the length to diameter ratio of the
>cylinders.

That can only be a function of physical size and wavelength, or of physical distance between sources (emitters) in terms of wavelength. Neither condition exists (the antenna is small, and is only one source). Beam steering and beam focusing antennas exhibit BOTH of these characteristics, the eh neither.

>"However, the data from the FCC methods of testing
>> prove there is no difference. "
>
>Well, that's the way I interpreted the data too. However, I don't believe
>this was a 3 dimensional measurement, was it?

Hi Joe,

There is little point in speculating about radiation straight up. If that is the only benefit to the antenna, it is certainly no benefit to the listener (definition of a Dummy Load). Field tests prove the listener enjoys no advantage from this speculative gain.

Simple fact of the matter is revealed at the test site. Are they using an eh, or the standard quarterwave over standard radials? The acid test of capitalist greed has eroded these fairy-tale claims.

73's
Richard Clark, KB7QHC

618. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 18:30:40 UTC
From: Lou DeChris <bit-bucket@config.com>
Message-ID: <slrnc0b2mg.qt6.bit-bucket@localhost.config.com>
Source record: 101940

```
On Tue, 13 Jan 2004 22:51:35 GMT, Roger Gt hath writ:
>
> Aluminum strip, 10 inches wide and .006 inches thick as a dipole.
> Any special considerations?
> How can I predict the band width?

At 1296 MHz?
```

619. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 18:55:40 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <qq3b0098irk28pcll8ll5or9elqbscenc9@4ax.com>
Source record: 101941

On Wed, 14 Jan 2004 11:17:24 -0600 (CST), richardharrison@webtv.net (Richard Harrison) wrote:

>Walter Maxwell wrote:
>"To anyone who believes the W5QJR EH conceptis valid."

>
>Why would the EH antenna have interest?
>
>Best regards, Richard Harrison, KB5WZI

Richard, my point is that the EH antenna, as Ted Hart claims it, cannot exist. He claims that by feeding the antenna with current lagging voltage by 90 degrees it puts the E and H fields in time phase. This is impossible, totally violating the principles of electromagnetic theory. Ted's claim shows misundstanding of the theory of wave propagation.

Walt

620. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 19:04:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40059375_6@corp.newsgroups.com>
Source record: 101942

Gene Fuller wrote:
> Cecil Moore wrote:
>> Kraus says: "It is generally assumed that the current distribution
>> of an infinitesimally thin antenna is sinusoidal, and that the phase
>> is constant over a 1/2WL interval, changing abruptly by 180 degrees
>> between intervals."
>
> Kraus says something quite similar in the second edition of "Antennas".
> (I believe you are quoting from the third edition, which was co-authored
> by someone else.)
>
> However, Kraus is merely being careless with terminology. (It is likely
> that he did not fully anticipate that he would be quoted out of
> context.)

It is within the context of physics. It is only out of context
when the context is sacred cows and old wives' tales.

> If one studies the accompanying diagrams it is clear that
> Kraus is simply referring to the standard functional form of a
> sinusoidal curve. For reasons not clear to me he decides to call the
> natural progression from positive to negative as the sine function
> passes through zero an abrupt 180 degree phase change. This is
> misleading at best.

Kraus is merely following convention. The sign of the real part of the
current at 89 degrees is positive. The sign of the real part of the current
at 91 degrees is negative. A positive sign indicates current flowing in
one direction. A negative sign indicates current flowing in the opposite
direction. Since there are only two possible directions in a wire, those
two directions are 180 degrees apart, by definition.

> A true phase change would be, for example, an abrupt transition from +1
> to -1 in the sine function. This sort of phase change is used in
> numerous communication schemes, such as PSK31.

A true phase change would also be, a smooth transition from +0.001 through
zero to -0.001. When current equals zero at a standing wave node, the phase
of the real component of current on each side of that zero is 180 degrees
different. For the real component of the current, a 180 degree phase reversal
occurs between 89 degrees and 91 degrees. Cos(89) = +0.017, Cos(91) = -0.017
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!

------== Over 100,000 Newsgroups - 19 Different Servers! =-----

621. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 19:06:53 UTC
From: richardharrison@webtv.net
Message-ID: <20942-4005934D-99@storefull-3255.bay.webtv.net>
Source record: 101944

Gene, W4SZ wrote:
"Your favorite example of an ideal transmission line with a perfectly reflecting termination shows exactly the same thing."

Yes. Several readers have available Terman`s 1955 edition of "Electronic and Radio Engineering". On page 94 is Fig. 4-5, "Phase Relations on a Transmission Line for Two Typical Conditions".

One of the conditions is for a complete reflection (Rho = 1). The phase changes are indeed abrupt. Over a distance of 1.25-wavelengths we have 5 abrupt transistions of power factor between 90-degrees lag and 90-degrees lead or vice versa. The similarity between a standing-wave antenna and a standing-wave transmission line would lead one to expect abrupt phase reversals on the antenna too, as the open circuit at the antenna end is an abrupt almost complete reflection maker.

Best regards, Richard Harrison, KB5WZI

622. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 19:09:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40059497_6@corp.newsgroups.com>
Source record: 101943

Walter Maxwell wrote:
> Richard, my point is that the EH antenna, as Ted Hart claims it, cannot exist.
> He claims that by feeding the antenna with current lagging voltage by 90 degrees
> it puts the E and H fields in time phase. This is impossible, totally violating
> the principles of electromagnetic theory. Ted's claim shows misundstanding of
> the theory of wave propagation.

Well Walt, look at it this way. By claiming he puts the E and H fields in
phase, he forces the ExH power flow vector to be equal to zero. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

623. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 19:26:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <da3b00d6mj7vlcgq0ugr66jtto8s2dpf1u@4ax.com>
Source record: 101945

On Wed, 14 Jan 2004 11:17:24 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>
>OK. I read the first page: "Welcome to the Wonderful World of EH
>Antennas". It said nothing of why I should be interested. Why convert an
>existing broadcast antenna to EH?
>
>FCC has a publication, "Rules of Good Engineering Practice for Standard
>Broadcast Stations" which includes Mv/m at 1 mile on a radial over
>perfect earth from a vertical antenna of various heights. It shows about
>195 mV/m for a 1/4-wave grounded vertical.
>

Let's look at the Data 1 mile out, and compare to the standard antenna
at the same distance:

-3.5dB
-1.24dB
-2.84dB
-1.5dB
+0.66dB (in the direction of the nearby resonating tower)
-0.85dB

How about at the limit of the test @30KM:

-26.9dB
-27dB
-22.7dB
-34.8dB
-29dB @ 16KM (off the chart @30KM)
-32.4dB

This sucker's signal dives right into the ground like a plow.
Obviously the eh antenna suffers a misspelling, it should be POS.

[Art, are you taking notice of the performance of small vertical
dipoles for 160M?]

snip
>
>Why would the EH antenna have interest?

Hi Richard,

Why indeed. This design is a tower mounted, air cooled resistor that
has the advantages of top loading guy wires and nearby resonating

structures (if such could be called advantageous).

If you want to crow about your eh/POS DX contacts 1 mile out, they better be in the direction of that nearby standard quarterwave antenna. More's the pity that those living beyond 10 miles may never hear your fabulous DX report.

73's
Richard Clark, KB7QHC

624. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 19:29:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <726b005n81jah0u1vnqu6si6f7jk87crlv@4ax.com>
Source record: 101946

On Wed, 14 Jan 2004 11:28:01 GMT, kashe@rahul.net wrote:

> Just in case the concern about a fire hazard from arcing or
>corona discharge is a possiblity, it might not be a bad idea to blow a
>few bucks on a smoke detector up there.

and as a benefit, if you work CW, you might get sidetone.

73's
Richard Clark, KB7QHC

625. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 19:41:50 UTC
From: richardharrison@webtv.net
Message-ID: <20942-40059B7E-104@storefull-3255.bay.webtv.net>
Source record: 101949

Walter, W2DU wrote:
"This is impossible, totally violating the principles of electromagnetic theory."

I agree. It violates first principles of electricity. Radiation is a resistive load. Voltage across the load coincides exactly with current through the load. Volts and amps are in-phase. Nothing can be done to change that. There is no electrical energy storage in a resistance.

Once you tune for unity power factor and match for power transfer, you`re done and no monkey business will change the radiator from its natural function. You put a voltage across its drivepoint and it does its thing independent of how the voltage got there if the source can supply the antenna`s demand.

Best regards, Richard Harrison, KB5WZI

626. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 19:47:23 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bu46cb$1208$1@news3.infoave.net>
Source record: 101947

And I almost had my Fractal, EH, CFA completed. Are you saying my dream of a
24 inch 5dBd gain 75 meter antenna has been shattered?

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40059497_6@corp.newsgroups.com...
> Well Walt, look at it this way. By claiming he puts the E and H fields in
> phase, he forces the ExH power flow vector to be equal to zero. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 100,000 Newsgroups - 19 Different Servers! =-----

627. Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 19:54:38 UTC
From: soleti_rocco@katamail.com
Message-ID: <9d351130.0401141154.2a562918@posting.google.com>
Source record: 101948

Hi,
I have to provide mobile phone signal in a shielded environment.
Maybe the only way is by using an antenna that capture a sufficiently
strong signal outside the shielded room, and conveying that signal (
using a coax-cable) inside it, at the end of the cable some sort of
repeater that provide the diffusion.
Does anyone has some other suggestion?
Or if the idea is correct, are those repeater in commerce?
And about the receiving antenna?
Thanks in advance.

RoS

628. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 20:05:55 UTC
From: richardharrison@webtv.net
Message-ID: <20942-4005A123-110@storefull-3255.bay.webtv.net>
Source record: 101951

Richard Clark wrote:
"If you want to crow about your EH/POS DX contacts 1 mile out, they better be in the direction of that nearby standard quarterwave antenna."

All that needs to be done to take the standard quarterwave antenna out of the picture is to open-circuit the vertical to ground. That makes it resonant at about 2X the frequency where it is a 1/2-wave at resonance and capable of absorbing energy which it reradiates as a parasitic element. This may not be so good for the 2nd harmonic in some direction.

Best regards, Richard Harrison, KB5WZI

629. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 20:11:33 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <VnhNb.36638$6y6.794697@bgtnsc05-news.ops.worldnet.att.net>
Source record: 101950

Cecil,

This is absurd.

The "phase" in the equation y = A sin (x) is the "x", not the "A" or the "y"

There is no standard convention in the world of math, science, or engineering
that claims a sine wave reverses phase as its amplitude ranges through positive
and negative values.

Kraus was careless with his terminology, but I suspect he was not confused.

You appear to be carefully confusing the entire topic.

8-)

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil Moore wrote:
>>
>>> Kraus says: "It is generally assumed that the current distribution
>>> of an infinitesimally thin antenna is sinusoidal, and that the phase
>>> is constant over a 1/2WL interval, changing abruptly by 180 degrees
>>> between intervals."
>>
>>
>> Kraus says something quite similar in the second edition of
>> "Antennas". (I believe you are quoting from the third edition, which
>> was co-authored by someone else.)
>>
>> However, Kraus is merely being careless with terminology. (It is
>> likely that he did not fully anticipate that he would be quoted out of
>> context.)
>
>
> It is within the context of physics. It is only out of context
> when the context is sacred cows and old wives' tales.
>
>> If one studies the accompanying diagrams it is clear that Kraus is
>> simply referring to the standard functional form of a sinusoidal
>> curve. For reasons not clear to me he decides to call the natural
>> progression from positive to negative as the sine function passes

>> through zero an abrupt 180 degree phase change. This is misleading at
>> best.
>
>
> Kraus is merely following convention. The sign of the real part of the
> current at 89 degrees is positive. The sign of the real part of the current
> at 91 degrees is negative. A positive sign indicates current flowing in
> one direction. A negative sign indicates current flowing in the opposite
> direction. Since there are only two possible directions in a wire, those
> two directions are 180 degrees apart, by definition.
>
>> A true phase change would be, for example, an abrupt transition from
>> +1 to -1 in the sine function. This sort of phase change is used in
>> numerous communication schemes, such as PSK31.
>
>
> A true phase change would also be, a smooth transition from +0.001 through
> zero to -0.001. When current equals zero at a standing wave node, the phase
> of the real component of current on each side of that zero is 180 degrees
> different. For the real component of the current, a 180 degree phase
> reversal
> occurs between 89 degrees and 91 degrees. Cos(89) = +0.017, Cos(91) =
> -0.017

630. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 20:44:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4005aabd_3@corp.newsgroups.com>
Source record: 101952

w4jle wrote:
> And I almost had my Fractal, EH, CFA completed. Are you saying my dream of a
> 24 inch 5dBd gain 75 meter antenna has been shattered?

Not entirely, I can show you how to get a 22 dBi omnidirectional
radiation pattern with a folded antenna (according to EZNEC. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

631. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 20:46:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4005ab3c_3@corp.newsgroups.com>
Source record: 101953

Rocco wrote:

> Hi,
> I have to provide mobile phone signal in a shielded environment.
> Maybe the only way is by using an antenna that capture a sufficiently
> strong signal outside the shielded room, and conveying that signal (
> using a coax-cable) inside it, at the end of the cable some sort of
> repeater that provide the diffusion.
> Does anyone has some other suggestion?
> Or if the idea is correct, are those repeater in commerce?
> And about the receiving antenna?
> Thanks in advance.

Get you an external mobile cellular antenna. That already solves the
problem of operating a cellphone inside a "shielded" vehicle.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

632. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 20:59:05 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4005ae3e_3@corp.newsgroups.com>
Source record: 101954

Gene Fuller wrote:
> There is no standard convention in the world of math, science, or
> engineering that claims a sine wave reverses phase as its amplitude
> ranges through positive and negative values.

Of course there is, Gene. There are only two possible directions of travel for real current in a wire. Current is either flowing to the right, zero degrees by convention, or to the left, 180 degrees by convention. Those are the only two directions possible for the real part of Imax*e^jwt. The real part of the current has only two phases, either zero degrees or 180 degrees. Any magnitude of real current flowing to the right is at zero degrees, by convention. Any magnitude of current flowing to the left is at 180 degrees, by convention. The phase of current flow in a wire looks like a digital signal with only two states possible.

Dang, you guys have really been seduced by your math models. RF current reverses directions by 180 degrees every 1/2 cycle. In a transmission line that is multiple wavelengths long, all up and down the same wire, you have current flowing outward and current flowing inward 1/2WL apart. Just because you hang an arrow on the direction of current flow in an AC situation, doesn't mean the AC current always flows in that direction. That is only a reference corresponding to t=0.
At t=(0+1/2 cycle), the current is flowing in the *opposite* direction to the arrow.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

633. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 21:08:04 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <tnbb005056ogtj6t75rivnb1mk5mg1v54k@4ax.com>
Source record: 101955

On Wed, 14 Jan 2004 19:26:23 GMT, Richard Clark <kb7qhc@comcast.net> wrote:

>This sucker's signal dives right into the ground like a plow.
>Obviously the eh antenna suffers a misspelling, it should be POS.

>73's
>Richard Clark, KB7QHC

Richard, does POS mean positive, or is it what gets stuffed into the hole plowed by the signal?

634. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 21:16:08 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <51cb00dhti3oo1793tdosvj9r49qke11pq@4ax.com>
Source record: 101956

>"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
>news:40059497_6@corp.newsgroups.com...
>> Well Walt, look at it this way. By claiming he puts the E and H fields in
>> phase, he forces the ExH power flow vector to be equal to zero. :-)
>> --
>> 73, Cecil http://www.qsl.net/w5dxp

Yeah, Cecil, that's what I thought, too, but not according to Ted. He puts his antenna up at 1/4 wl above ground and gets 2.25 dB gain over a standard 1/4 wl vertical. What am I missing here? Perhaps we just haven't yet found Ted's secret for squeezing the E and H fields to rest on top of each other instead of in sequence.

Walt

635. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 21:28:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4005b52f_3@corp.newsgroups.com>
Source record: 101957

Walter Maxwell wrote:

>>"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>Well Walt, look at it this way. By claiming he puts the E and H fields in
>>>phase, he forces the ExH power flow vector to be equal to zero. :-)
>
> Yeah, Cecil, that's what I thought, too, but not according to Ted. He puts his
> antenna up at 1/4 wl above ground and gets 2.25 dB gain over a standard 1/4 wl
> vertical. What am I missing here?

The only possible conclusion is that he doesn't put the E and H
fields in phase. Could it be that there is another dimension, in
which the EH antenna operates, which allows ExH to be greater
than E*H[sin(90ï¿½)]? - that's 90 degrees for you incompatible nerds. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

636. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 21:34:08 UTC
From: Roger Gt <Xenot@pacbell.net>
Message-ID: <kBiNb.984$lK3.421@newssvr29.news.prodigy.com>
Source record: 101958

"Lou DeChris" <bit-bucket@config.com> wrote in message
news:slrnc0b2mg.qt6.bit-bucket@localhost.config.com...
> On Tue, 13 Jan 2004 22:51:35 GMT, Roger Gt hath writ:
> >
> > Aluminum strip, 10 inches wide and .006 inches thick as a dipole.
> > Any special considerations?
> > How can I predict the band width?
>
> At 1296 MHz?

My tome is brief, scarcely a page in the sands of time.

It would make a lot of Bow-ties and reflectors, but I was tying to make an indoor antenna for 40 / 20 Meters.

While the average wind is only 10 mph. Seasonally the winds get to 35 mph with maximum gusts to over 85 mph. My 10 / 15 wire antenna's are the most used, and require frequent maintaince. The indoor antenna's (also #17 Aluminum electric fence wire) are always available. I wanted to add more bands, and have an entire roll of this sheet stock which is just taking up shelf space.

In reply to other suggestions, all fasteners are Aluminum, and the insulators are PVC. The support lines are 40lb monofilament fishing line, and the tensioners are Screen door springs at the extreme support points. Coax feeds are all RG8U. I bought a roll! 2 meters and up are covered by a Radio Shack discone.

160 and 80 Meters are (very) spiral wound on 20 foot of 4 inch drain pipe forms. (works but NOT real good IMHO)

637. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 22:14:43 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <nbjNb.15640$VS4.485929@bgtnsc04-news.ops.worldnet.att.net>
Source record: 101959

Hi Walt,

What you are "missing" is that the EH antenna can be made from scraps of PVC pipe and used aluminum foil. Don't need no stinkin' steel towers. (Except as "support" of course.)

Don't worry about whether it works or not; it is a great recycling project.

8-)

73,
Gene
W4SZ

Walter Maxwell wrote:

>
>
> Yeah, Cecil, that's what I thought, too, but not according to Ted. He puts his
> antenna up at 1/4 wl above ground and gets 2.25 dB gain over a standard 1/4 wl
> vertical. What am I missing here? Perhaps we just haven't yet found Ted's secret
> for squeezing the E and H fields to rest on top of each other instead of in
> sequence.
>
> Walt

638. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 22:15:04 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bu4smi$1bu0$1@news3.infoave.net>
Source record: 101825

How about that antenna they sell on late night TV that sticks to your battery? They claim is works anywhere.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:4005ab3c_3@corp.newsgroups.com...
> Rocco wrote:
>
> > Hi,
> > I have to provide mobile phone signal in a shielded environment.
> > Maybe the only way is by using an antenna that capture a sufficiently
> > strong signal outside the shielded room, and conveying that signal (
> > using a coax-cable) inside it, at the end of the cable some sort of
> > repeater that provide the diffusion.
> > Does anyone has some other suggestion?
> > Or if the idea is correct, are those repeater in commerce?
> > And about the receiving antenna?
> > Thanks in advance.
>
> Get you an external mobile cellular antenna. That already solves the
> problem of operating a cellphone inside a "shielded" vehicle.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

639. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 22:15:04 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bu4f27$15jm$1@news3.infoave.net>
Source record: 101960

How about that antenna they sell on late night TV that sticks to your battery? They claim is works anywhere.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:4005ab3c_3@corp.newsgroups.com...
> Rocco wrote:
>
> > Hi,
> > I have to provide mobile phone signal in a shielded environment.
> > Maybe the only way is by using an antenna that capture a sufficiently
> > strong signal outside the shielded room, and conveying that signal (
> > using a coax-cable) inside it, at the end of the cable some sort of
> > repeater that provide the diffusion.
> > Does anyone has some other suggestion?
> > Or if the idea is correct, are those repeater in commerce?
> > And about the receiving antenna?
> > Thanks in advance.
>
> Get you an external mobile cellular antenna. That already solves the
> problem of operating a cellphone inside a "shielded" vehicle.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

640. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 22:22:12 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <oijNb.15664$VS4.486832@bgtnsc04-news.ops.worldnet.att.net>
Source record: 101961

Cecil,

Sorry, I forgot that Wednesday is "no math day" in Texas.

8-)

73,
Gene
W4SZ

Cecil Moore wrote:

> Dang, you guys have really been seduced by your math models.

641. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 23:09:15 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <qNKdnVqnYvqXUZjdRVn-hA@comcast.com>
Source record: 101962

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
news:bu4f27$15jm$1@news3.infoave.net...
> How about that antenna they sell on late night TV that sticks to your
> battery? They claim is works anywhere.

It works just as well in any environment.

It dosen't work at all.

642. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 23:09:19 UTC
From: Robin <me@here.com>
Message-ID: <4005cc38$0$221$fa0fcedb@lovejoy.zen.co.uk>
Source record: 101963

"Mike Coslo" <mcoslo@enoughalreadyadelphia.net> wrote in message
news:KjFJb.2585$uF6.1103823@news1.news.adelphia.net...
> Cecil Moore wrote:

> The scan rate of most computer monitors is closely related to multiples
> of the scan rate of a NTSC television signal scan rate.

How do you work that out? NTSC is 60Hz (30Hz Interlaced)
So Most CRT monitors run at 70Hz, 75Hz, 85Hz and maybe 100Hz for a high end
monitor at 1024*768

Where is the link between the vertical refresh rates?

Have a google search for Vesa refresh rates for more info.

Robin.. (I used to work for NEC building computer monitors before NEC
pulled out of manufacturing them in the UK)

643. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-14 23:16:37 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4005CDD5.4E300DE2@uci.edu>
Source record: 101964

Cecil Moore wrote:
>
> Gene Fuller wrote:
> > There is no standard convention in the world of math, science, or
> > engineering that claims a sine wave reverses phase as its amplitude
> > ranges through positive and negative values.
>
> Of course there is, Gene. There are only two possible directions of
> travel for real current in a wire. Current is either flowing to the
> right, zero degrees by convention, or to the left, 180 degrees by
> convention. Those are the only two directions possible for the real
> part of Imax*e^jwt. The real part of the current has only two phases,
> either zero degrees or 180 degrees. Any magnitude of real current
> flowing to the right is at zero degrees, by convention. Any magnitude
> of current flowing to the left is at 180 degrees, by convention. The
> phase of current flow in a wire looks like a digital signal with only
> two states possible.

Yikes, Cecil. Using that logic, you're basically arguing that every 1/2
WL or 180 degrees, a forward wave turns into a reflected wave. You
oughta think about what Gene's saying a little longer. Phase is the wt
part of the equation, and it varies continuously with time. It doesn't
change abruptly - unless it encounters a discontinuity of one sort or
another.

73, Jim AC6XG

> Dang, you guys have really been seduced by your math models. RF current
> reverses directions by 180 degrees every 1/2 cycle. In a transmission
> line that is multiple wavelengths long, all up and down the same wire,
> you have current flowing outward and current flowing inward 1/2WL apart.
> Just because you hang an arrow on the direction of current flow
> in an AC situation, doesn't mean the AC current always flows in that
> direction. That is only a reference corresponding to t=0.
> At t=(0+1/2 cycle), the current is flowing in the *opposite* direction
> to the arrow.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

644. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 00:17:53 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <R_kNb.53635$sv6.130644@attbi_s52>
Source record: 101965

Walter Maxwell wrote:

SNIP

> Richard, does POS mean positive, or is it what gets stuffed into the hole plowed
> by the signal?

I think it's related to fertilizer!

645. Loading Coils & Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 00:19:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bu4mb7slg1@titan.btinternet.com>
Source record: 101966

Considering a loading coil to be a section of transmission line -

To the first approximation, which in many applications is good enough -

Coil inductance = Sqr(N*Pi*d)/10 uH per metre.

Coil capacitance = 55.5/(Ln(2*H/d)-1) pF per metre.

Line Zo = Sqrt(L/C) ohms.

Velocity of propagation = 1/(sqrt(L*C) metres per second.

Where H is length of coil, d is diameter of coil former, and N is number of close-wound turns per metre.

All of which can be found in Terman, who himself plagiarised his predecessors and I have plagiarised from Ohm, Ampere and Volta. So why couldn't YOU? "It's elementary my dear Watson."

To provide some numbers let -

H = 1m, d = 25mm, N = 500 turns per metre of 2mm diameter wire.

From which -

C = 16.43 pF, L = 154.2 uH,

Zo = 3064 ohms,

Velocity Factor Relative to Light = 0.0662.

And so a 1 metre height helical antenna, of the above dimensions, above a ground plane will be 1/4 wavelength resonant at 4.967 MHz. (I do hope my arithmetic is OK)

The foregoing demonstrates how a coil with its distributed capacitance behaves as a transmission line or even as an entire antenna. When short sections are used as loading coils in antennas exactly the same transmission line calculations apply.

Beware of old wives hopelessly displaying their pseudo knowledge, ridiculously overcomplicating situations and reducing the facts to unbelievable nonsence. All in the good name of World-wide Amateur Radio.

I'm on "Rouwke's Drift" tonight, a South African, Western Cape, medium-dry white. I can recommend it.

Reg, G4FGQ

646. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 00:29:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4005dfa1$1_6@corp.newsgroups.com>
Source record: 101967

w4jle wrote:
> How about that antenna they sell on late night TV that sticks to your
> battery? They claim is works anywhere.

Sorry, "anywhere" doesn't include inside a Faraday shield.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

647. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 00:34:14 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4005e0b4_6@corp.newsgroups.com>
Source record: 101968

Gene Fuller wrote:
> Sorry, I forgot that Wednesday is "no math day" in Texas.

When you can't refute what I say, offer a quip instead? If
you tell me what is wrong with what I said, I will profit
by my mistakes. Otherwise, I will be bound by the same
old laws of physics that I learned in the 50's.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

648. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 00:49:00 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <upob00dj4if2prop6m6i4kovs08c5qfkog@4ax.com>
Source record: 101819

On Thu, 15 Jan 2004 00:17:53 GMT, Dave Shrader <david.shrader@comcast.net>
wrote:

>Walter Maxwell wrote:
>
>SNIP
>
>> Richard, does POS mean positive, or is it what gets stuffed into the hole plowed
>> by the signal?
>
>I think it's related to fertilizer!

Dave, I think it means pile o something or other, can't think of what it is
right now.

Walt

649. Re: QRM for Internet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 00:50:49 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <29udnTm-Q-FqfpjdRVn-tA@comcast.com>
Source record: 101820

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:lqYZZjEfQ6AAFAsF@ifwtech.co.uk...
>
> Ferrite isn't magic, so don't expect one small clip-on ferrite core to
> solve all your RFI problems.
>
> There are some RFI cases where a single clip-on core is a complete
> cure... but there are many more cases where it's not enough.
>
> To have some serious chance of curing RFI, you need to use several turns
> on a fairly large lump of ferrite.
>
Also, note that the simple ferrite fix only works for common mode RF.
Anything that is differential will get rectified and detected. The phone
line could be unbalanced at RF, even though it is balanced at audio. The
only way to supress differential RF is to filter each lead separately.

The reason for the rectification is that they tend to put a bridge rectifier
at the line input. This way the phone still works if the tip/ring polarity
of the 48V has been switched.

Tam/WB2TT

650. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 00:52:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4005e4fb_6@corp.newsgroups.com>
Source record: 101821

Jim Kelley wrote:
> Yikes, Cecil. Using that logic, you're basically arguing that every 1/2
> WL or 180 degrees, a forward wave turns into a reflected wave.

Nope, but half the time in a horizontal standing wave antenna, the
forward current is flowing toward the left while the reflected current
is flowing toward the right, and vice versa. That's simply a characteristic
of RF current. In a single conductor into your house, half the time, the
current is flowing toward the source. I am absolutely amazed that
you, of all people, would allow yourself to be seduced by a shortcut
DC model applied to an AC problem.

The beauty of AC power transfer is that the same electrons are run back
and forth through the generator. For a UHF transmitter, very few of the
electrons running back and forth through the transmitter reach the
antenna. It is somewhat akin to the bouncing ball bearings. The center
one doesn't move.

> You oughta think about what Gene's saying a little longer.

Sorry Jim, but you oughta think, period. At the moment, you are
running on autopilot in a tiny box. Repeat after me until you
understand. AC is NOT DC. AC is NOT DC. AC is not DC. AC is not
DC. ... In any one wire, the direction of AC current changes by
180 degrees every 1/2 cycle. This was taught in detail at Texas
A&M in the 50's. What on earth has happened in the ensuing 50
years?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

651. Re: Loading Coils & Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 00:55:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4005e5c2$1_6@corp.newsgroups.com>
Source record: 101822

Reg Edwards wrote:
> I'm on "Rouwke's Drift" tonight, a South African, Western Cape, medium-dry
> white. I can recommend it.

Reg, you just gotta try the Bella Serra Merlot. It's got a lot more
antioxidants than the above besides being absolutely delicious.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

652. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 01:24:52 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <vqqb00l558evivd5qccid2d6as826ra39e@4ax.com>
Source record: 101823

Hello Ted,

The following is a copy of my last msg to Ted, sent much earlier today. I have not yet received a reply.

Ted,

While I respect your wish to not respond, I have no other choice but to respond, because I'm trying to help you here with respect to legal problems you may encounter down the road if you insist on telling prospective buyers that your antenna outperforms conventional antennas due to a modified relationship between the E and H fields. Sometime in the future the truth will come out that the EH relationship you claim is invalid, destroying your credibility. This is what I don't want to happen.

You stated that no one can claim fraud if the antenna does what you say it does. But Ted, the problem is that it doesn't.

I pointed out that hundreds of patents have been declared invalid in the courts because the concepts they portrayed were found later to be invalid. In these cases the patent examiners simply did not recognize the invalidity of the subject when they granted the patents.

You said you presented proof of performance to the examiner. That you did, and the engineering report you submitted was very well done. The procedure your consulting firm used is exactly the same as what I used when I was in that business years ago.

But Ted, your proof of performance proved only that the antenna radiated as indicated by the measured data--it did NOT prove that the antenna was performing with the in-phase E and H field relationship that you claim. And that is the problem. Your statement that everything you say about the EH antenna is valid is easily proven wrong, as I have already done in my previous email.

In your reply to my email you said the pattern distortion was due to to a power line. I must remind you that the radiation from your antenna is vertically polarized, while the wires of the power line are horizontal. With the quadrature relationship between the antenna and the power line how can there be sufficient coupling between them to distort the pattern of the vertically polarized field radiated from the antenna?

That being said, Ted, I will bother you no longer, but I sincerely hope you'll reconsider my comments, and cease claiming that the E and H fields are rendered in phase by the lagging current in the power delivered to the antenna.

73,

Walt, W2DU

653. Virtual ground monopole HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 02:01:32 UTC
From: francesco.errante@tiscali.it
Message-ID: <c15f167.0401141801.7ecde81c@posting.google.com>
Source record: 101824
Cross-posted to: sci.physics.electromag,rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment

ENGLISH VERSION AND LABORATORY PROTOTYPE PICTURES NOW AVAILABLE !

A virtual ground monopole HF antenna is being disclosed on

http://www.Radiondistics.com , along with several other devices.

Many thanks for you kind attention.

Regards,

Francesco Errante

Virtual ground monopole HF antenna is patent-pending & copyright 2003-2004
Francesco Errante

http://www.Radiondistics.com

---

654. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 02:32:42 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bu4u4e$1cvs$1@news3.infoave.net>
Source record: 101827

I would contend that it works as well in a faraday shield as it does in the elevator.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:4005dfa1$1_6@corp.newsgroups.com...
> w4jle wrote:
> > How about that antenna they sell on late night TV that sticks to your
> > battery? They claim is works anywhere.
>
> Sorry, "anywhere" doesn't include inside a Faraday shield.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

655. Re: Outbacker plus spring?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 02:34:06 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <QWmNb.35812$v16.10340@bignews5.bellsouth.net>
Source record: 101826

"Dr. Daffodil Swain" <wa4jm@earthlink.net> wrote in message
news:K5aNb.6948$q4.4118@newsread3.news.atl.earthlink.net...
> depends on the spring. A quaility one will have a fat braid up the
middle.

Won't matter. The antenna flopping around in the breeze
will still cause the SWR to fluctuate. Even the whip swinging around will
change it, particularly with a Hi Q,
or narrow bandwidth antenna.

Jerry
K4KWH

>
>
> "Dusty" <dusty@nowhere.com> wrote in message
> news:4004b5a1$1@news.comindico.com.au...
> >
> > "Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
> > news:341Nb.26016$v16.6507@bignews5.bellsouth.net...
> > >
> > > "Dusty" <dusty@nowhere.com> wrote in message
> > > news:4003807f@news.comindico.com.au...
> > > > I've got a spring on my home brew job thats mounted on the bullbar
but
> > > > it travels many 1000's of K's on rough dirt roads. It's not a bad
idea
> > to
> > > > dampen the vibration.
> > > >
> > > Have you ever watched on a meter what the SWR does while your antenna
> > swings
> > > and sways with Sammy Kaye; it goes thru the roof! Yes, there are a
few
> > > instances where a spring is a must, but if I can avoid using one, I
do.
> >
> > No I can't say I have Jerry but I'll put one in line for a gander with
and
> > without the spring.
> >
> >
>
>

656. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 02:55:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400601d7$1_5@corp.newsgroups.com>
Source record: 101828

w4jle wrote:
> I would contend that it works as well in a faraday shield as it does in the
> elevator.

Hi, Hi, ain't English great?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

657. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 03:06:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40060458$1_5@corp.newsgroups.com>
Source record: 101829

Jim Kelley wrote:
> Yikes, Cecil. Using that logic, you're basically arguing that every 1/2
> WL or 180 degrees, a forward wave turns into a reflected wave.

Consider a balanced transmission line. When forward current in one wire
is flowing toward the load, the forward current in the other wire is
flowing toward the source. When reflected current in one wire is flowing
toward the source, the reflected current in the other wire is flowing
toward the load.

Moral: Be very, very careful about the when and where of t=0. Is the
top or bottom of an balanced antenna tuner link coil the output path
or the return path?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

658. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 03:54:16 UTC
From: richardharrison@webtv.net
Message-ID: <20942-40060EE8-199@storefull-3255.bay.webtv.net>
Source record: 101830

Walter, W2DU wrote:
"Sometime in the future the truth will come out that the EH relationship you claim, is invalid, destroying your credibility."

Yea, verily! Ever since the command: "Let there be light." was issued, it has been so. This was many eons before James Clerk Maxwell figured it all out in the 19th century. Electrical energy that has escaped into free space exists in the form of electromagnetic waves

Some of the waves we detect have been traveling toward us for billions of years. Some of tese electromagnetic waves are called radio waves. They travel with the velocity of light and consist of magnetic and electric fields that are at right angles to each other and also at right angles to the direction of travel.

Thank you Dr. F.E. Terman for your well chosen words mixed in with those above. You can do a right-hand rule maneuver while extending one finger to illustrate the field directions involved in a radio wave. Terman gives a better idea with diagrams on page 1 of "Electronic and Radio Engineering".

The electric and magnetic fields actually generate each other. It was James Clerk Maxwell who speculated that displacement current (the dielectric force that moves electrical charges in a capacitor), generates magnetic flux lines, the same as current in a conductor does. Subsequently, Maxwell`s point was proved. Out in the near vacuum of the cosmos, there are few examples of electric current as there are very few electrons.. Yet radio propagates very well. Maxwell came up with the secret of propagation of radio and its ilk. A dynamic magnetic field generates a dynamic electric field, which generates a dynamic magnetic field and so on ad infinitum.
The same energy is swapped back and forth between fields. That produces an equal division of energy between the two fields, electric and magnetic.

Whatever anyone does to launch a radio wave, the secret of propagation is revealed above and this nature of propagation is likely immutable and remains unchanged since creation. Nature doesn`t seem to be creating various new prototypes for a contest for survival of the best adapted radio wave model. Biological types evolve but it seems it is only our understanding of physics which evolves.

An EH antenna will have to prove to be better as a transformer to couple radio sets to free space than the time tested models which occupy a fraction of a wavelength and can be better than 95% efficient.

Best regards, Richard Harrison, KB5WZI

659. Re: Virtual ground monopole HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 04:21:02 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-91B8D9.20210214012004@news.sf.sbcglobal.net>
Source record: 101831
Cross-posted to: sci.physics.electromag,rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment

In article <c15f167.0401141801.7ecde81c@posting.google.com>,
francesco.errante@tiscali.it (Radiondistics) wrote:

> ***ENGLISH VERSION AND LABORATORY PROTOTYPE PICTURES NOW AVAILABLE !***
>
>
> A virtual ground monopole HF antenna is being disclosed on
>
> http://www.Radiondistics.com , along with several other devices.
>
> Many thanks for you kind attention.
>
> Regards,
>
> Francesco Errante
>
> Virtual ground monopole HF antenna is patent-pending & copyright 2003-2004
> Francesco Errante

Looking into my crystal ball I see you getting a virtual patent.

--
Telamon
Ventura, California

660. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 05:36:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40062794$1_4@corp.newsgroups.com>
Source record: 101832

Richard Harrison wrote:
> An EH antenna will have to prove to be better as a transformer to couple
> radio sets to free space than the time tested models which occupy a
> fraction of a wavelength and can be better than 95% efficient.

Even if an antenna was invented that yielded 100% efficiency instead
of 95% efficiency, what difference would it make? 3% of an S-unit?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

661. Test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 05:56:40 UTC
From: Deni <saydoobllvay@tiscali.fr>
Message-ID: <bu5a2v$dk5at$1@ID-221401.news.uni-berlin.de>
Source record: 101833

- . ... -

662. Re: Virtual ground monopole HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 06:10:42 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <C9qNb.9739$ct4.2104@lakeread05>
Source record: 101834
Cross-posted to: sci.physics.electromag,rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment

"Radiondistics" <francesco.errante@tiscali.it> wrote in message
news:c15f167.0401141801.7ecde81c@posting.google.com...

> http://www.Radiondistics.com

I'm sending a screenshot of that disgusting panty-waisted liberal garbage on
their website to friends and contacts in the various armed services here in
Norfolk, Virginia, in the hopes that this company never sells anything to
the U.S. Gov't or NATO.

Jack Painter

663. Re: Virtual ground monopole HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 06:34:20 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bu5c9p$1j1f$1@news3.infoave.net>
Source record: 101835
Cross-posted to: sci.physics.electromag,rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment

I wondered what happened to all those itinerant peddlers that sold miracle
cures off the back of a wagon.

Now I know, they have all become antenna designers.

"Jack Painter" <223bthp@cox.net> wrote in message
news:C9qNb.9739$ct4.2104@lakeread05...
> "Radiondistics" <francesco.errante@tiscali.it> wrote in message
> news:c15f167.0401141801.7ecde81c@posting.google.com...
>
> > http://www.Radiondistics.com
>
> I'm sending a screenshot of that disgusting panty-waisted liberal garbage
on
> their website to friends and contacts in the various armed services here
in
> Norfolk, Virginia, in the hopes that this company never sells anything to
> the U.S. Gov't or NATO.
>
> Jack Painter
>
>

664. Re: Virtual ground monopole HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 09:07:20 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0401150107.207b72a0@posting.google.com>
Source record: 101836
Cross-posted to: sci.physics.electromag,rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Hi Francesco and all,
IMHO the antenna employs the braids of the twin coaxes as a
counterpoise, i.e. the missing dipole arm. If both the boxes were
placed tightly adjacent to each other with no grounding and the
outgoing (single) coax was equipped with a RF choke, the antenna would
be probably quite poor.

BR from Ivan

665. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 09:52:11 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <400662CB.3E6E@wt.net>
Source record: 101837

Walter Maxwell wrote:
>
> The following is Ted Hart's response to me:
>
> ----- Original Message -----
> From: Ted
> To: Walter Maxwell
> Cc: Bill Ronay
> Sent: Tuesday, January 13, 2004 5:50 PM
> Subject: Re: EH Antenna
>
> Hi Walter,
>
> Every one is entitled to their opinion - but accurate test data is irrefutable.

Boy, he finally got something right...Yes, accurate tests results can
tell a lot. *IF* we get ever get to see any.
Testing a non-decoupled very small antenna that is mounted to a metal 90
foot tall tower is not accurate test data.
It is a joke of immense proportion. The BC tower in close proximity
bothers me less than this. He is not testing an E/H antenna. He is
testing a 90 ft tower and feedline, being the problem of common mode
currents on the feedline are severe. Even he admits that "rf in the
shack" can be a severe problem with these antennas. But!!! He advocates
NOT using any form of feedline decoupling. It's no wonder, being that
will effectively kill the radiation from his main radiator. Which is the
feedline and tower. Someone, maybe from "Antennex", tested an E/H
antenna fed directly from the base of the antenna, with NO feedline, and
NO tower. Needless to say, the performance was earthshaking. :(Or
maybe we should say it's non-performance....But when you have plans to
unload these buggers for appx 40k+ apiece, I guess the motivation for
creative testing really kicks in.
Accurate testing goes out the back window. An accurate test result will
not fit the program. The prince becomes an ugly wart infested fraug.

http://search.yahoo.com/search?x=wrt&p=antennex+-++eh+antenna&fr=fp-pull-web-t&n=20&fl=0
http://www.google.com/search?hl=en&ie=ISO-8859-1&q=E%2FH+antenna&btnG=Google+Search
for some more reading.

When he does a controlled test where the antenna is mounted on a
non-conducting tower or mast, and feeds the antenna directly at the
feedpoint using NO feedline, or at the least, a very well decoupled
feedline, then you can call it an accurate test. What he offers now is
an insult to most peoples intelligence. It's an insult to mine, and I'm
just a run of the mill dummy compared to many others on here. I suspect

most *real* broadcast engineers snicker like small school children when they discuss the merits of the E/H antenna behind closed doors.

MK
--
http://web.wt.net/~nm5k

666. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 10:01:46 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <pxtNb.5617$A74.242@fed1read02>
Source record: 101838

"'Doc" <w5lz@cwis.net> wrote in message news:40045A1F.760FD1AB@cwis.net...
>
>
> Ed,
> How about a vertical array antenna? It's as omnidirectional
> as an antenna can get in a 'real world' situation, and it does
> have gain over a single element antenna. Describing it with
> the commonly accepted definition of a 'beam' isn't
> correct/valid,
> (I agree with you there), but it fills the requirements of the
> original post (omnidirectional + gain).
> 'Doc

What do you mean by a "vertical array"? What are the basic radiating elements, loops or dipoles? And then, how many replications and in what physical location is this "array"?

Could you be confusing "omnidirectional" with "omniazimuth"? Another poster visualized this antenna pattern as a squashed (mmmmmmmm) doughnut. Equal radiation to all points on the horizon, all the way around the compass. But that pattern isn't omnidirectional. For instance, what about straight overhead? Is the field as strong there as at the horizon?

Ed
wb6wsn

667. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 10:37:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <82rc00p1caahtgq58dc9oea56c6mr9ctn1@4ax.com>
Source record: 101839

On Thu, 15 Jan 2004 03:52:11 -0600, Mark Keith <nm5k@wt.net> wrote:
>Boy, he finally got something right...Yes, accurate tests results can
>tell a lot. *IF* we get ever get to see any.

Hi Mark,

His own data shows quite clearly that the eh antenna, 10 miles out, is more than 30dB down from the nearby standard quarterwave it is supposed to replace. His own data shows that at 1 mile out, the eh is still underperforming.

There is a basic disconnect between what is claimed, and what the data clearly shows as a burnt resistor.

More accuracy may improve the -30dB to -30.1dB but would hardly make things any better - or any worse.

73's
Richard Clark, KB7QHC

668. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 10:43:59 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <40066EEF.74E0@wt.net>
Source record: 101840

Mark Keith wrote:
He is not testing an E/H antenna. He is
> testing a 90 ft tower and feedline, being the problem of common mode
> currents on the feedline are severe.

I might add, he is testing a 90 ft tower fed in a less than optimum manner also...I could shunt feed a 90 ft tower like a normal person would, and beat his setup any day I bet. If I top loaded the tower with loading wires or a hat, Look out Mr. E/H ...It ain't gonna be pretty. I wouldn't have the lossy coil in the "E/H" apparatus to contend with for one thing. So I bet his test results of feeding the E/H ant-90 ft tower/feedline combo, most likely are inferior to feeding a 90 ft tower in a conventional manner, assuming equal ground losses. Note how the comparison B/C antenna compares overall...:) So lets see...The price of a 90 ft tower plus wire for 120 radials, or a $40k+ E/H antenna plus the 90 ft tower as support. He says you don't really need radials...*snicker*...The E/H antenna setup will most likely be the poorer performer of the two setups. Dunno, I know which line I'll be in.. And I can tell you I won't have to drive to GA to pick it up...:/ MK
--
http://web.wt.net/~nm5k

669. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 10:50:18 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <4006706A.743C@wt.net>
Source record: 101841

Richard Clark wrote:
>
> On Thu, 15 Jan 2004 03:52:11 -0600, Mark Keith <nm5k@wt.net> wrote:
> >Boy, he finally got something right...Yes, accurate tests results can
> >tell a lot. *IF* we get ever get to see any.
>
> Hi Mark,
>
> His own data shows quite clearly that the eh antenna, 10 miles out, is
> more than 30dB down from the nearby standard quarterwave it is
> supposed to replace. His own data shows that at 1 mile out, the eh is
> still underperforming.
>
Yea, But it should be even uglier if he does away with the tower and
feedline. :(Real ugly in fact.
I doubt we will see any tests done without a metal support, or radiating
feedline. "IE: the E/H antenna tested by itself, on it's own merits".
Or at least sponsored by that bunch. I wish I could remember who tried
it without the tower and feedline...Might be in google archives...It was
so ugly, it stunk up the place. :(MK
--
http://web.wt.net/~nm5k

670. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 12:44:36 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <TWvNb.59866$5V2.69256@attbi_s53>
Source record: 101842

Yep! The antenna does work anywhere! Any antenna works anywhere. An antenna inside a Faraday cage works just fine, but, outside the Faraday cage you still can't hear anything. :-)

w4jle wrote:

> How about that antenna they sell on late night TV that sticks to your
> battery? They claim is works anywhere.
>
>

671. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 13:02:25 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <400691B6.7484D6DB@uwe.ac.uk>
Source record: 101843

Reg Edwards wrote:
>
> Tom, beware the Green-eyed Technology Goddess.
>
> WE have modelling programs which actually WORK.
>
> And FREE to US citizens.
>
> Is this 'dumping' of shoddy goods?
>
>

You also have modelling programs which don't work. These
are also free. Let the user beware.

vy 73

Andy, M1EBV

672. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 13:42:07 UTC
From: "Dan Richardson"
Message-ID: <k26d00d93dd7ro6dctoo2te75eqjaunh5r@4ax.com>
Source record: 101845

On Thu, 15 Jan 2004 13:02:25 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
wrote:

>You also have modelling programs which don't work.

Can you please provide a list of these "non-working" programs?

Danny, K6MHE

673. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 13:56:11 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <bu665d$e0066$1@ID-175933.news.uni-berlin.de>
Source record: 101844

"Ed Price" <edprice@cox.net> wrote in message
news:pxtNb.5617$A74.242@fed1read02...
> ...Could you be confusing "omnidirectional" with "omniazimuth"?
> ... radiation to all points on the horizon, all the way around the
compass.
> But that pattern isn't omnidirectional. For instance, what about straight
> overhead? Is the field as strong there as at the horizon?

The convention in FM/TV broadcasting is to consider only the radiation directed toward, and for a few degrees below the horizontal plane when characterising the shape of a radiation pattern as directional or not. This is the radiation sector that best serves the purposes of the broadcast station: to provide the strongest signal to the most receivers. Radiation toward other elevation angles is largely wasted.

Broadcasters use arrays of antenna elements aligned on a vertical axis to produce maximum gain in, and near the horizontal plane. Typically each of these elements is omnidirectional in the azimuth plane, arrayed at about 1 lambda vertical intervals, and driven with equal power and phase.

A slide show and tech papers on these topics are available following the "Papers" button at http://rfry.org.

R. Fry

674. Re: Antenna advice - "Plastic Car"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 14:22:30 UTC
From: gmz79@aol.comnospam
Message-ID: <20040115092230.21852.00000017@mb-m06.aol.com>
Source record: 101846

> On Tue, 13 Jan 2004 02:31:31 GMT, John <res0b06f@verizon.net> wrote:
>
> >Greetings all
> >I have a 87 Fiero GT - V6 Mid-Engined Plastic car. I have been
> >considering using an "On-The-Glass" MultiBand antenna (2M / 440Mhz) on
> >this car. Has anyone done this? what kind of results?

Best and Cheapest antenna for a Fiero is a twinlead J-pole
stuffed inside a pvc pipe,bumper mount,big signal for less than 10bucks.
kc8vif
Greg Z
to thine own sound be true

675. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 14:48:36 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <4006AA9A.88A3013B@uwe.ac.uk>
Source record: 101847

"Dan Richardson <" wrote:
>
> On Thu, 15 Jan 2004 13:02:25 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
> wrote:
>
> >You also have modelling programs which don't work.
>
> Can you please provide a list of these "non-working" programs?
>
> Danny, K6MHE

Dear Dan,

dipole3.exe produces very unlikely values for the 'Input resistance'(sic) of electrically short dipoles. I assumed that 'Input resistance' was the resistive component of the feedpoint impedance. I pointed this out to Reg and got insults and bluster but no meaningful reply.

E.g. a 16.6 m dipole at 1.8 MHz h=6m w=1.5 s=120 gives 44.3 ohms. That seemed a little high to me. So I reduced the length to 1 metre !!!! the resistance rises ????? to 212.8 ohms. Am I hitting some boundary condition? or am I misunderstanding the significance of 'Input Resistance'? I'm pretty sure the radiation resistance plus loss resistance of a 1 metre antenna on top band should be much less than 1 ohm.

EZNEC gives values at least an order of magnitude less than the values obtained from dipole3 for the resistive component of the feedpoint impedance. I believe EZNEC to be a reliable, well proven program, which gives accurate (at least in this context) results. The mathematical basis and assumptions of EZNEC and NEC2 are publicly available, unlike those of Reg's programs.

As far as I am concerned if one of Reg's programs has errors that he is unwilling or unable to correct or explain then the results of any of his programs should be checked by a more reliable method before they are used.

Let the user beware.

vy 73

Andy, M1EBV

676. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 14:58:12 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <4006ACDA.E929C386@uwe.ac.uk>
Source record: 101848

Andy Cowley wrote:
>
> "Dan Richardson <" wrote:
> >
> > On Thu, 15 Jan 2004 13:02:25 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
> > wrote:
> >
> > >You also have modelling programs which don't work.
> >
> > Can you please provide a list of these "non-working" programs?
> >
> > Danny, K6MHE
>
> Dear Dan,
>

An addition to my last post about Reg's dipole3.exe:-

With these settings l=1, h=6, w=1.5, s=0.2, f=1.8, 'Input resistance' is given as 248.4 ohms. Even if it is assumed that all the antenna current flows to the end of the wire, the wire resistance can't exceed 0.08 ohms, the correct figure being closer to 0.04 ohms, assuming linear current distribution. For a short antenna it is obvious that the radiation resistance must be less than that of a dipole in free space i.e. less than 73 ohms. That leaves a contribution of at least 175 ohms for the ground losses. Increasing height to h=1000 (effectively free space) the ground resistance falls to 136 ohms. There is something very wrong here. Increasing the wire diameter produces big reductions in the 'Input resistance'. I feel that the RF wire resistance/wire losses are being incorrectly calculated.

I'm fully prepared to be corrected if I'm wrong about this but Reg has so far failed to give any satisfactory explanation of the results I obtained. If I am wrong, I will, of course , make an unreserved apology to Reg.

Perhaps someone with more skill and knowledge than I have can check what I've done? I used EZNEC to simulate an identical aerial and got very different results.

vy 73

Andy Cowley, M1EBV

677. Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 15:28:40 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <bu6bj8$e8heh$1@ID-213023.news.uni-berlin.de>
Source record: 101849

Here's my setup: My FT-817 feeds an LDG Z100 autotuner. The output from the tuner goes to a nearby window via 8' of RG-58 coax. There the coax is formed into a coil. The coil form was one of those round CD-R cases (you know, the cake shaped 50 packs you see at Wal-mart). I wound 12 turns of coax neatly around this form, glued the turns together with superglue and baking soda then removed the form.

The output from this choke attaches to 50' of 450 ohm ladder line which connects to a 134' inverted V with an apex of 35' and ends at 15'. Without the tuner, I get 2:1 SWR points at:

2.125-2.375 Mhz
3.995-4.305 Mhz
4.905-5.595 Mhz
9.335-10.605 Mhz
12.145-13.725 Mhz
16.545-18.685 Mhz
20.475-21.785 Mhz
23.765-26.725 Mhz
28.615-30.125 Mhz

Now - this morning I was talking on the phone with Barry, W4WB of W4RT electronics and I described the antenna system to him. His opinion was that while the choke was surely doing it's job, I would get better performance (radiation efficiancy) if between the ladder line and choke I would install a 4:1 balun.

What do you guys think? Kinda makes sense to me.

Ken KG0WX

678. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 16:17:04 UTC
From: richardharrison@webtv.net
Message-ID: <20944-4006BD00-34@storefull-3255.bay.webtv.net>
Source record: 101850

Roger wrote:
"Any special considerations?"

A dipole in the HF range using aluminum strip 10 inches wide and .006 inches thick has a small length to width ratio and that`s good for bandwidth. The width is sufficient for good surface conduction and that is good for efficiency.

Most data are for copper but aluminum is only 1.6X as resistive as copper, so there is not much electrical difference in performance. .006 inch is sufficiently thick to prevent significant RF penetrationat at HF, and if RF did penetrate it would not be detrimental.

Bandwidth of an antenna may be determined by acceptable directional character or it may be determined by acceptable drivepoint impedance.

Ed Laport in "Radio Antenna Engineering" has made a "Free-Space Dipole Characteristics" table for bandwidth as limited to the region where the antenna`s reactance is less than its radiation resistance at resonance.

At 10 MHz, a dipole made of Roger`s aluminum strip would have an equivalent length over diameter (L/D) of about 59.

From Laport`s Fig. 3.1 on page 248, a dipole of L/D of 200 would be resonant at an electrical length of 168.3-degrees. Its 3 dB bandwidth is 11.2% and its 1 dB bandwidth is 5.6%. The aluminum strip dipole at 10 MHz has a smaller effective L/D and produces a wider bandwidth than any shown in Laport`s table.

Consult "Radio Antenna Engineering" for more information.

Best regards, Richard Harrison, KB5WZI

679. Re: 6 mil thick by 10 inch wide Aluminum sheet for an antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 16:46:18 UTC
From: richardharrison@webtv.net
Message-ID: <20942-4006C3DA-248@storefull-3255.bay.webtv.net>
Source record: 101852

Roger wrote:
"---Running only 100 Watts?"

At resonance, you should have 85 volts at the dipole drivepoint. If there were no radiation from the antenna, voltage at its tips would rise to 170 volts from the Ferranti effect, that is the voltage doubling from collapse of the magnetic field caused by current interruption at the conductor`s end.

It`s possible to build a Tesla coil with inductive loading of an antenna, but if you don`t do that, there`s not much chance of generating enough voltage to make a corona with 100 watts. At a kilowatt you only have 3.16 X the volts at 100 watts. It takes several thousand volts to generate a corona at normal atmospheric pressure.

Install a fire detector and be comfortable.

Best regards, Richard Harrison, KB5WZI

680. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 16:53:13 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <ZzzNb.9419$i4.4524@newsread1.news.atl.earthlink.net>
Source record: 101851

Bill:

[snip]
> No, at my level of understanding they both sound compelling. It's the
> human interaction I find interesting. There's something about highly
> educated people getting down in the mud and rasslin' with each other...
>
> :-)
>
> --
> Bill, W6WRT
[snip]

What are you thinkin man!

Who wants to watch to old codgers like Roy and Cec rasslin
in the mud?

We all wanna see Britney and Madonna doing that, not Roy and Cec!

--
Peter K1PO
Indialantic By-the-Sea, FL

681. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:02:59 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <fsgd00tvrhvnjdd0kg8jvmfdmgpijgnjr0@4ax.com>
Source record: 101853

On Thu, 15 Jan 2004 04:43:59 -0600, Mark Keith <nm5k@wt.net> wrote:

>Mark Keith wrote:
> He is not testing an E/H antenna. He is
>> testing a 90 ft tower and feedline, being the problem of common mode
>> currents on the feedline are severe.

Hello Mark,

Perhaps I'm not perceiving your position on the EH correctly, but from your discussions above and in your previous post, my perception is that you believe the EH exists and can be tested, and your problem is only with the test procedure.

Mark, my position is that the EH does not and cannot exist in the manner Hart specifies, because there is no way that the E and H fields can exist in time phase--the change in each field generates the other sequentially. Hart seems to be unaware of this fundamental fact, and also seems to be unaware that no power can be delivered with current lagging voltage by 90 degrees unless there is an opposite reactance to move the phase away from 90.

Since power IS delivered to the so called EH, the lagging current due to the series inductance must simply be compensating for the capacative reactance in a conventional shorter-than-resonant antenna, thus bringing it to resonance.

I'm saying there is no such device as an 'EH' antenna.

Walt, W2DU

682. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:05:01 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <1LzNb.59766$Rc4.215851@attbi_s54>
Source record: 101854

Walter,
Since you have had a lot of success with publicly dancing on the EH grave
with this thread .could you point out any facets on the experimenation made
that could possibly be useful for further study, maybe something in the
order of radiation efficiency per unit length or something else that you may
have spotted ?
I have not got involved with the EH antenna mechanics but I would hate to
see something of interest covered purely for the sake of frivility at an
experimentors expence.
Regards
Art Unwin

"Walter Maxwell" <w2du@iag.net> wrote in message
news:8am300l3ad5ae7m3967og6t8a2hoacoa3f@4ax.com...
> Happy New Year to you, too, Rick.
>
> To anyone who believes the W5QJR EH concept is valid.
>
> I just now received a request from Rick Lutzinger, KD6ZR, asking for my
opinion
> on the validity of the EH concept W5QJR touts as his invention in his
website at
> www.eh-antenna.com.
>
> I went back and reviewed the posts on this thread posted during the last
week of
> September 2003. Surprisingly, I didn't find anyone who disagreed with the
> concept. All I found there were disgreements with the claims for gain and
> realistic claims that this antenna could not even radiate as well as a
> conventional antenna. With this I agree.
>
> The following text contains my reply to Rick:
>
> Hi Rick,
>
> I didn't have the opportunity to refer to Hart's fiasco until day before
> yesterday. He appears to still be in the business of publishing proofs of
> his limited knowledge of antenna and transmission line principles.
> Unfortunately, he appears to believe he's found something new in his 'EH'
> concept. On the contrary, 'his' antenna still performs as a Hertz, and his
> limited knowledge has misled him believe he has something different. So
> let's examine the situation.
>
> Let's begin with a traditional resonant 1/4 wave vertical antenna over

> perfect ground fed with a 50-ohm coax matched to a source delivering all
of
> its available power--signifying a conjugate match. Now let's add some
> inductive reactance between the coax and the antenna. There is no longer a
> conjugate match, the current lags the voltage, the power factor is no
longer
> 100%, and the delivery of power is reduced proportionately. If we continue
> to increase the inductance until the current lags voltage by 90 degrees
the
> power factor is zero, because cos 90 = 0. In this case the only power
> delivered by the source is that dissipated in the inherent loss of the
> inductance. The reactive power contained in the inductance is reflected
back
> to the source resulting in a mismatch that prevents any further delivery
of
> power other than that required to supply the power dissipated in the loss
> resistance of the inductance. In this condition no power will be delivered
> to the antenna.
>
> However, if a capacitor is inserted in series with the inductor having the
> same but negative value of reactance as the inductor, we know that the
total
> reactance now is zero, the conjugate match is restored, and the power
> delivery returns to normal.
>
> On the other hand, Hart is applying the 90-degree phase lag to a very
short
> antenna, whose input impedance is capacitive. As the series inductance is
> increased to where its reactance equals the negative reactance of the
> antenna capacitance, we have the conventional loading and matching of an
> antenna that is shorter than that of resonance.
>
> Now if Hart is able to obtain an input to the antenna that approaches an
> impedance match allowing power to be delivered into the antenna, the
> capacitive reactance of his short antenna is simply compensating for the
> series inductance he believes produces current that lags voltage by 90
> degrees. Tain't so. He is simply feeding a traditionally matched short
> Hertzian antenna. Further, voltage applied to Hart's 'EH' antenna results
in
> antenna current flowing in exactly the same manner as in any antenna, and
> the E and H fields are formed and are related to each other in the same
> chronological manner as in any antenna. The natural laws of
electromagnetic
> theory govern the field development and there is nothing anyone can do to
> violate those laws developed by James Clerk Maxwell in the 1800s--they
have been
> proven immutable for more than 120 years.
>
> So how come the respondents rave about how terrific their 'EH' antennas
> work? It's only because they fail to understand what is really

> happening--there is no change in the chronological relationship between
the E
> and H fields, as Hart has misled them to believe, they are simply using a
> shortened loaded antenna in the traditional manner.
>
> Hope you find this of value, Rick
>
> 73, Walt
>
> PS--Please note in the References section of Reflections that an asterisk
> preceding a name indicates that that reference contains erroneous and
> misleading information. Now take a peek at my Reference 100. The material
in
> that reference proves that that writer even then didn't didn't have a clue
> concerning transmission line theory. Note also the date: March
1969--things
> don't seem to change very much.
>
> Walt Maxwell, W2DU
>
>
>

683. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:06:47 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4006C8A7.7C22D251@uci.edu>
Source record: 101855

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > Yikes, Cecil. Using that logic, you're basically arguing that every 1/2
> > WL or 180 degrees, a forward wave turns into a reflected wave.
>
> Nope, but half the time in a horizontal standing wave antenna, the
> forward current is flowing toward the left while the reflected current
> is flowing toward the right, and vice versa. That's simply a characteristic
> of RF current.

The point is it's not a reversal in phase, abrupt or otherwise. A
reversal in polarity, maybe. And you can't try to argue that polarity
and phase mean the same thing. This is really common knowledge,
freshman level stuff, Cecil. You really ought to just let it drop.
It's not even pertinent to the topic. But since for you, arguing is an
objective in itself, I'm sure you'll continue to argue about it.

73, Jim AC6XG

684. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:33:55 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4006CF03.C6F85AB5@uci.edu>
Source record: 101859

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > Yikes, Cecil. Using that logic, you're basically arguing that every 1/2
> > WL or 180 degrees, a forward wave turns into a reflected wave.
>
> Consider a balanced transmission line. When forward current in one wire
> is flowing toward the load, the forward current in the other wire is
> flowing toward the source. When reflected current in one wire is flowing
> toward the source, the reflected current in the other wire is flowing
> toward the load.

> Moral: Be very, very careful about the when and where of t=0. Is the
> top or bottom of an balanced antenna tuner link coil the output path
> or the return path?

:-) That explains a lot, Cecil. It points up another Moral: Don't write an equation and then forget where you put your point of reference. Your wave is moving a lot faster than your electrons. Don't worry about your electrons so much - they'll take care of themselves.

73 de jk

685. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:35:13 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4006cff7_7@corp.newsgroups.com>
Source record: 101856

Jim Kelley wrote:
>
> Cecil Moore wrote:
>>Nope, but half the time in a horizontal standing wave antenna, the
>>forward current is flowing toward the left while the reflected current
>>is flowing toward the right, and vice versa. That's simply a characteristic
>>of RF current.
>
> The point is it's not a reversal in phase, abrupt or otherwise. A
> reversal in polarity, maybe. And you can't try to argue that polarity
> and phase mean the same thing.

There are only two directions possible for real current in a wire so
real polarity and real phase indeed do mean the same thing. Kraus clearly
agrees. Take a look at Figure 14-4 on page 465 of _Antennas_For_All_Applications_,
third edition. The graph of the current phase is a square wave that jumps
from zero degrees to 180 degrees and back. Between you and Kraus, I choose Kraus.

A wire is one-dimensional with two and only two directions. In what dimension
do the extra phases of the current that you allude to exist? The real part of
I*e^jwt is either positive or negative, i.e. binary. The only possible change
of direction is abrupt. The change in magnitude is not abrupt, but the change
in phase is abrupt, just as Kraus says.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

686. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:36:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4006d04e_7@corp.newsgroups.com>
Source record: 101858

Peter O. Brackett wrote:
> We all wanna see Britney and Madonna doing that, not Roy and Cec!

Cec agrees. Probably, so does Roy. Where can I buy tickets?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

687. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:38:17 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <lcjd00lsin5fqesjgvn876rmb9l5vs5n3f@4ax.com>
Source record: 101857

On Thu, 15 Jan 2004 17:05:01 GMT, " Art Unwin KB9MZ" <aunwin@insightbb.com>
wrote:

>Walter,
> Since you have had a lot of success with publicly dancing on the EH grave
>with this thread .could you point out any facets on the experimenation made
>that could possibly be useful for further study, maybe something in the
>order of radiation efficiency per unit length or something else that you may
>have spotted ?
>I have not got involved with the EH antenna mechanics but I would hate to
>see something of interest covered purely for the sake of frivility at an
>experimentors expence.
>Regards
>Art Unwin
>
>
>"Walter Maxwell" <w2du@iag.net> wrote in message
>news:8am300l3ad5ae7m3967og6t8a2hoacoa3f@4ax.com...
>> Happy New Year to you, too, Rick.
>>
>> To anyone who believes the W5QJR EH concept is valid.
>>
>> I just now received a request from Rick Lutzinger, KD6ZR, asking for my
>opinion
>> on the validity of the EH concept W5QJR touts as his invention in his
>website at
>> www.eh-antenna.com.

Thanks for asking, Art, but no, I can't come up with anything new in this area. However, if you're looking for some huffaw size grins I suggest you look at the website shown directly above. It has several categories in a pull-to-the-right menu for their selection. One category you'll like is 'Article', but I believe the one with the huffaws is the 'EH Definition'.

On the other hand, the report of the measurements taken by the consulting firm is well done and useful, but of course it's not data measured on an EH antenna, because such an antenna doesn't exist.

I know this hasn't helped, Art, but it's the best I can do under the circumstances.

Walt

688. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:39:57 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4006D06D.802A9A71@uci.edu>
Source record: 101861

Cecil Moore wrote:
> There are only two directions possible for real current in a wire so
> real polarity and real phase indeed do mean the same thing.

Non-sequitur, ad absurdum, ad nausium.

Thank you.

73 de jk

689. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:40:58 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bu6jejjph1@newshost.mot.com>
Source record: 101863

Robin,

I *haven't* worked in this area, but I still knew this comment was misplaced
since I've seen all kinds of scan freqs over the years.

--
Steve N, K,9;d, c. i My email has no u's.

"Robin" <me@here.com> wrote in message
news:4005cc38$0$221$fa0fcedb@lovejoy.zen.co.uk...
> "Mike Coslo" <mcoslo@enoughalreadyadelphia.net> wrote in message
> news:KjFJb.2585$uF6.1103823@news1.news.adelphia.net...
> > Cecil Moore wrote:
>
> > The scan rate of most computer monitors is closely related to multiples
> > of the scan rate of a NTSC television signal scan rate.
>
> How do you work that out? NTSC is 60Hz (30Hz Interlaced)
> So Most CRT monitors run at 70Hz, 75Hz, 85Hz and maybe 100Hz for a high
end
> monitor at 1024*768
>
> Where is the link between the vertical refresh rates?
>
> Have a google search for Vesa refresh rates for more info.
>
> Robin.. (I used to work for NEC building computer monitors before NEC
> pulled out of manufacturing them in the UK)
>
>

690. Re: Virtual ground monopole HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:42:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bu6jgr$js5$1@newshost.mot.com>
Source record: 101865
Cross-posted to: sci.physics.electromag,rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Do we click on the virtual link to see it?

Steve N.

"Radiondistics" <francesco.errante@tiscali.it> wrote in message
news:c15f167.0401141801.7ecde81c@posting.google.com...
> ***ENGLISH VERSION AND LABORATORY PROTOTYPE PICTURES NOW AVAILABLE !***
>
>
> A virtual ground monopole HF antenna is being disclosed on
>
> http://www.Radiondistics.com , along with several other devices.
>
> Many thanks for you kind attention.
>
> Regards,
>
> Francesco Errante
>
>
>
>
> Virtual ground monopole HF antenna is patent-pending & copyright 2003-2004
> Francesco Errante
>
> http://www.Radiondistics.com
>
>
> --
------

691. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:45:21 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bu6jmo$k33$1@newshost.mot.com>
Source record: 101862

Scam
Steve N.

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
news:bu4smi$1bu0$1@news3.infoave.net...
> How about that antenna they sell on late night TV that sticks to your
> battery? They claim is works anywhere.
>
>
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:4005ab3c_3@corp.newsgroups.com...
> > Rocco wrote:
> >
> > > Hi,
> > > I have to provide mobile phone signal in a shielded environment.
> > > Maybe the only way is by using an antenna that capture a sufficiently
> > > strong signal outside the shielded room, and conveying that signal (
> > > using a coax-cable) inside it, at the end of the cable some sort of
> > > repeater that provide the diffusion.
> > > Does anyone has some other suggestion?
> > > Or if the idea is correct, are those repeater in commerce?
> > > And about the receiving antenna?
> > > Thanks in advance.
> >
> > Get you an external mobile cellular antenna. That already solves the
> > problem of operating a cellphone inside a "shielded" vehicle.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 100,000 Newsgroups - 19 Different Servers! =-----
>
>

692. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:45:37 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bu6jn8$k3o$1@newshost.mot.com>
Source record: 101864

Still a scam
Steve N.

"w4jle" <W4JLE(remove this to reply)@pbtcomm.net> wrote in message
news:bu4f27$15jm$1@news3.infoave.net...
> How about that antenna they sell on late night TV that sticks to your
> battery? They claim is works anywhere.
>
>
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:4005ab3c_3@corp.newsgroups.com...
> > Rocco wrote:
> >
> > > Hi,
> > > I have to provide mobile phone signal in a shielded environment.
> > > Maybe the only way is by using an antenna that capture a sufficiently
> > > strong signal outside the shielded room, and conveying that signal (
> > > using a coax-cable) inside it, at the end of the cable some sort of
> > > repeater that provide the diffusion.
> > > Does anyone has some other suggestion?
> > > Or if the idea is correct, are those repeater in commerce?
> > > And about the receiving antenna?
> > > Thanks in advance.
> >
> > Get you an external mobile cellular antenna. That already solves the
> > problem of operating a cellphone inside a "shielded" vehicle.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 100,000 Newsgroups - 19 Different Servers! =-----
>
>

693. Re: Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 17:50:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rdkd0013qk0sn0emsaf7ubqllap38rqm6p@4ax.com>
Source record: 101860

On Thu, 15 Jan 2004 08:28:40 -0700, "Ken Bessler"
<kg0wxIHATESPAM@yahoo.com> wrote:
>I get 2:1 SWR points at:
>
>2.125-2.375 Mhz
>3.995-4.305 Mhz
>4.905-5.595 Mhz
>9.335-10.605 Mhz
>12.145-13.725 Mhz
>16.545-18.685 Mhz
>20.475-21.785 Mhz
>23.765-26.725 Mhz
>28.615-30.125 Mhz
>
>Now - this morning I was talking on the phone with Barry, W4WB
>of W4RT electronics and I described the antenna system to him.
>His opinion was that while the choke was surely doing it's job, I
>would get better performance (radiation efficiancy) if between the
>ladder line and choke I would install a 4:1 balun.
>
>What do you guys think? Kinda makes sense to me.

Hi Ken,

Sounds like Barry wants to sell a BalUn if that is the sense you get.

73's
Richard Clark, KB7QHC

694. Re: Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 18:07:39 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <bu6ku2$e71vf$1@ID-213023.news.uni-berlin.de>
Source record: 101866

"Richard Clark" <kb7qhc@comcast.net> wrote in message
>
> Hi Ken,
>
> Sounds like Barry wants to sell a BalUn if that is the sense you get.
>
> 73's
> Richard Clark, KB7QHC

1) If you knew Barry, you would not think that
2) W4RT dosen't sell baluns

The question still stands - would adding a 4:1 balun at
the transition between coax and ladder line improve the
system or is a coax choke good enough?

73's de Ken KG0WX

695. Re: Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 18:20:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <iold005fi5esl6devod46h3qegmco579jh@4ax.com>
Source record: 101867

On Thu, 15 Jan 2004 11:07:39 -0700, "Ken Bessler"
<kg0wxIHATESPAM@yahoo.com> wrote:

>
>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>>
>> Hi Ken,
>>
>> Sounds like Barry wants to sell a BalUn if that is the sense you get.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>1) If you knew Barry, you would not think that
>2) W4RT dosen't sell baluns
>
>The question still stands - would adding a 4:1 balun at
>the transition between coax and ladder line improve the
>system or is a coax choke good enough?
>
>73's de Ken KG0WX
>

Hi Ken,

The value of the coax choke is found in its ability to snub common mode currents. Given the proximity of earth such currents are an almost certainty - however, suffering from them is arguable. You haven't complained of it forcing you to use this as a solution have you? If so, I missed that.

The coax choke does not perform an Z transformation. Do you anticipate that the antenna will present 200 Ohms to you somewhere (especially so close to earth)? Does your data support this expectation (in other words, howcum why a 4:1 BalUn with all the 2:1 SWRs)?

Do you anticipate that the antenna will present 12.5 Ohms to you somewhere? Does your data support this expectation? (Notice the parallel development to the question above.) Will you be connecting this BalUn backwards to support this notion? (Was it even mentioned?)

The sales clerk's suggestion seems mostly gratuitous. Back in the 30's W.C. Fields would have offered "Go away son, you bother me!"

73's
Richard Clark, KB7QHC

696. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 18:24:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4006db26_2@127.0.0.1>
Source record: 101868

Jim Kelley wrote:
> Cecil Moore wrote:
>>There are only two directions possible for real current in a wire so
>>real polarity and real phase indeed do mean the same thing.
>
> Non-sequitur, ad absurdum, ad nausium.

So that's your opinion of Kraus? In that freshman class you mentioned they must have taught you that math models dictate reality. Have you been a case of arrested development ever since? Don't you realize that, in a one-dimensional environment, the 'j' operator is really imaginary? There is no dimension in which j1.0 can actually exist in reality.

The current in a wire at a certain point and time is 0 + j1.0. Among the electron charge carriers at that point, exactly where does that j1.0 exist? The physical wire is essentially a one dimensional environment for those free electrons. In one dimension, polarity and phase are the same thing. For the current on a standing wave antenna, Kraus clearly indicates there are only two phase possibilities, zero and 180 degrees. Maybe you should contact Kraus and tell him that he is wrong.
--
73, Cecil, W5DXP

697. Re: Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 18:52:14 UTC
From: jgboyles@aol.com
Message-ID: <20040115135214.22937.00000043@mb-m04.aol.com>
Source record: 101769

>If you knew Barry, you would not think that

If Barry said it would, and you know Barry, I don't think I would bother asking anyone else.

>The question still stands - would adding a 4:1 balun at
>the transition between coax and ladder line improve the
>system or is a coax choke good enough?

I assume you are to use this antenna on all bands. The reason for adding a choke balun is that you are going from an unbalanced coax to a more or less balanced antenna system. The choke attempts to maintain that balance by presenting a high impedance path to any current that attempts to flow on the outside of the coax shield.

Adding a 4:1 balun might help the tuner see a more easily tuned (less tuner loss) impedance on some frequencies. However, this is an all band antenna, so the Z is all over the place. A 4:1 impedance transformer most of the time won't help, and can even make things worse. I wouldn't bother.
If the tuner balks on a certain frequency, change the length of 450 ohm line a little till she will tune. About that 25' of RG-58 between the tuner and the 450 ohm line. (8' to the window+17' in the choke) That will transform the Z at the 450 ohm termination to something completely different at the tuner. The exception is that the Z at the 450 ohm line is 50 ohms resistive, then it is a true 1:1.
You can see all this stuff in action if you model your antenna and transmission line on Eznec, or Reg Edwards Dipole1.

73 Gary N4AST

698. Re: Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 18:58:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4006e32f_2@127.0.0.1>
Source record: 101770

Ken Bessler wrote:
> The question still stands - would adding a 4:1 balun at
> the transition between coax and ladder line improve the
> system or is a coax choke good enough?

The highest impedance possible with an SWR of 2:1 is 100
ohms. All impedances that cause an SWR of 2:1 or less, in
a 50 ohm environment, are less than 100 ohms. Therefore,
a 4:1 balun would yield the same SWR for 100 ohms and a
worst SWR for all other impedances less than 100 ohms.
A 4:1 balun is a bad idea in this case.
--
73, Cecil, W5DXP

699. Re: ON4SKY website updates

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 19:00:57 UTC
From: MD <ve3tmt@rac.ca>
Message-ID: <LrBNb.4218$c1.680313@news20.bellglobal.com>
Source record: 101771
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

"Thierry" <To answer me in private use
http://www.astrosurf.com/lombry/post.htm> wrote in message
news:40045e9d$1_2@news.vo.lu...
> Hi OM,
>
> For the novices, and mayube the OT, here are some pages updated on my
> website about antennas:
> http://www.astrosurf.com/lombry/menu-qsl.htm

I especially liked the section titled "How to Become an Amateur Radio"
I guess if I could become an amateur radio I would want to be the FT1000MP
or the TS950SDX.
I guess when I was younger I wanted to be an HW-8,

700. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 19:40:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4006ecef_2@127.0.0.1>
Source record: 101772

Jim Kelley wrote:
> Non-sequitur, ad absurdum, ad nausium.

I'm going to let you do the math to convince yourself
that Kraus is correct, given his assumptions about thin
wire antennas.

Assume two traveling-wave currents, each with a maximum
magnitude of 1.0 amps, and flowing in opposite directions.
They are a forward current wave and a reflected current wave,
If and Ir. This will set up a classical current standing wave.
Here are five possible superpositions of those two currents.
('+' is the 0,0 origin)

(1)**

+-------> 1.0 +------->
If = 1.0 at zero degrees Ir = 1.0 at zero degrees

What is the phase of the sum of those two phasors? __________

(2)**

/ +
/ \
/ \
+ \
If = 1.0 at 45 degrees Ir = 1.0 at -45 degrees

What is the phase of the sum of those two phasors? __________

(3)**

| +
| |
| |
| |
+ |
If = 1.0 at 90 degrees Ir = 1.0 at -90 degrees

What is the phase of the sum of those two phasors? __________

(4)**

\ +
\ /
\ /
\ /

```
+ /
If = 1.0 at 135 degrees Ir = 1.0 at -135 degrees

What is the phase of the sum of those two phasors? __________

(5)************************************************************

<-------+ <-------+
If = 1.0 at 180 degrees Ir = 1.0 at -180 degrees

What is the phase of the sum of those two phasors? ___________

************************************************************
```

When you guys figure it out, you will realize why Kraus shows only two possible phases for current in standing wave antennas, zero degrees and 180 degrees. Everyone who doubts the binary nature of the phase of standing waves, please post your answers.

--

73, Cecil, W5DXP

701. Re: Virtual ground monopole HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 20:36:28 UTC
From: "paulfriedman@comcast.net" <p.paulfriedman@comcast.net>
Message-ID: <gRCNb.76634$na.42816@attbi_s04>
Source record: 101773
Cross-posted to: sci.physics.electromag,rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Steve:

You clearly don't understand unreality. One should use a virtual click.
jeeez, I thought that was obvious. <grin>

Paul AB0SI

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:bu6jgr$js5$1@newshost.mot.com...
> Do we click on the virtual link to see it?
>
> Steve N.
>
> "Radiondistics" <francesco.errante@tiscali.it> wrote in message
> news:c15f167.0401141801.7ecde81c@posting.google.com...
> > ***ENGLISH VERSION AND LABORATORY PROTOTYPE PICTURES NOW AVAILABLE !***
> >
> >
> > A virtual ground monopole HF antenna is being disclosed on
> >
> > http://www.Radiondistics.com , along with several other devices.
> >
> > Many thanks for you kind attention.
> >
> > Regards,
> >
> > Francesco Errante
> >
> >
> >
> >
> > Virtual ground monopole HF antenna is patent-pending & copyright
2003-2004
> > Francesco Errante
> >
> > http://www.Radiondistics.com
> >
> >
>
> ---
> ------
>
>

702. Re: Current in antenna loading coils controversy (*sigh*)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 21:11:29 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0401151311.1d9eed0c@posting.google.com>
Source record: 101774

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<v4f900d1899utrguhdju47mnle76aqchhv@4ax.com>...
> On 14 Jan 2004 03:13:25 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
> wrote:
>
> > How come that
> >straight piece of wire (as antenna) can exhibit different current along its
> >length (where is Kirchoff)
>
> Sheeshï¿½,
>
> Kirchhoff is explicitly violated by employing his laws at wavelength
> scales. Kirchhoff NEVER said anything about current into/out-of a
> device (which by necessity is of some obvious dimension). Rather, his
> current law speaks of a POINT (which is dimensionless). In failing to
> have come to terms with this simple issue, the entire course of, what,
> 600 postings yields little more than white noise.
>
> If you want to talk Kirchhoff and nets, get your definitions right.
> It is his voltage law that describes in terms of devices (across a
> resistor, between two points, what have you).
>
>
> 73's
> Richard Clark, KB7QHC

Check out this gentlemen:

http://www.scientia.org/cadonline/Physics/circuits/kirchoffq.ASP

Yeah, it's very simple, isn't it? But if you consider that
dQ/dt=I AT A SPECIFIC POINT, then it's all about conserving Coulombs,
it seems to me.

Kirchoff's current law applies when you have a junction between
multiple current-carrying paths, and it applies more to a DC current
situation.

The law isn't violated when you consider the AC current running
through
a capacitor, otherwise you would demand that there be a current
running through the dielectric, which there is clearly not (the
coulombs never travel across it). Likewise, an antenna can store
coulombs, more at the ends of the radials, and can therefore have a
different AC current distribution at the different
points on the antenna.

So Kirchoff's law stands the test of conserving coulombs, but is
easier
to understand in a DC situation.

Slick

703. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 21:36:17 UTC
From: richardharrison@webtv.net
Message-ID: <21057-400707D1-30@storefull-3252.bay.webtv.net>
Source record: 101775

Cecil, W5DXP wrote:
"Take a look at Figure 14-4 on page 465 of "Antennas For All Applications---third edition."

Yes. If you don`t have a copy, you are truly deprived.

Kraus corroborates the square phase diagram in the text. On page 463, he says: For each length the relative amplitude and phase of the current are presented for omega prime = 10 and omega prime = infinity corresponding to total length-diameter ratios (l/a) of 75 and infinity" (a very thin wire).

What Kraus shows is a center-fed 5/4-wave dipole, 5/8-wave per side, for maximum gain without production of significant extra lobes.

At 1/2-wave back from the open circuit ends of the dipole, phase moves up a vertical line from the zero-degree level to the 180-degree level. This is in the case of the extremely thin wire. For the l/a=75 wire, the phase change is much more gradual.

Please look at Terman`s Fig. 4-5 on page 94 of his 1955 edition of "Electronic and Radio Engineering".

Fig. 4-5 is: "Phase relations on a transmission line for two typical conditions. In these curves, the voltage of the incident wave at the load is used as the reference phase, and the line attenuation is assumed to be small."

For the case of the complete reflection, the load is an open circuit as shown. The reflection coefficient is 1 (one) on an angle of zero. The reflected wave will be just as strong as the incident wave. The reflection causes the voltages of incident and reflected waves to have the same phase at an open circuit. They add arithmetically, and the total voltage across the open circuit (load) end of the line doubles. In this case the current of the two waves are equal and of opposite phase at the open circuit. Thus they add to zero at this point.

At a distance of 1/4-wave back from the open circuit, the incident wave has advanced by 90-degrees from its phase position at the load, while the reflected wave has dropped back by the same 90-degrees. The line voltage from the forward (incident) and reflected waves at this point, one quarterwave back from the open circuit, are now 180-degrees out-of-phase. Their sum is nearly zero from a complete reflection on a nearly lossless line. The currents from the forward and reflected waves which were out-of-phase at the open circuit are now in-phase, at this point, 1/4-wave back from the open circuit.

FROM Fig. 4-5(c), the phase line representing the case of a complete reflection, goes from zero-degrees for the voltages at the open circuit, and abruptly falls to a 90-degree lead with respect to the incident voltage at the open-circuit (load).

AT 1/4-wave back from the load, the phase shifts instantly from 90-degrees lead to 90-degrees lag.

At 1/2-wave back from the load, the phase shifts instantly from 90-degrees lag to 90-degrees lead. This flip-flop behavior continues each 1/4-wave of travel back from the reflection point.

For the case shown for the reflection coefficient of 0.4, the phase oscillates between leads and lags of 40-degrees, not the 90-degree limits of the complete reflection case.

The phase reversals in Kraus` Figure 14-4 are analogous to those in Terman`s figs. 4-5 and 4-7. All show abrupt 180-degree phase shifts alternating at regular intervals.

Best regards, Richard Harrison, KB5WZI

704. Re: Virtual ground monopole HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 22:18:23 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bu73mlecl1@newshost.mot.com>
Source record: 101776
Cross-posted to: sci.physics.electromag,rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment
Body handling: HTML body converted to readable text

Oh Bugger! I should have known, Steve

"paulfriedman@comcast.net" wrote in message
news:gRCNb.76634$na.42816@attbi_s04...
> Steve:
>
> You clearly don't understand unreality. One should use a virtual click.
> jeeez, I thought that was obvious.
>
> Paul AB0SI
>
>
> "Steve Nosko" wrote in message
> news:bu6jgr$js5$1@newshost.mot.com...
> > Do we click on the virtual link to see it?
> >
> > Steve N.
> >
> > "Radiondistics" wrote in message
> > news:c15f167.0401141801.7ecde81c@posting.google.com...
> > > ***ENGLISH VERSION AND LABORATORY PROTOTYPE PICTURES NOW AVAILABLE
!***
> > >
> > >
> > > A virtual ground monopole HF antenna is being disclosed on
> > >
> > > http://www.Radiondistics.com , along with several other devices.
> > >
> > > Many thanks for you kind attention.
> > >
> > > Regards,
> > >
> > > Francesco Errante
> > >
> > >
> > >
> > >
> > > Virtual ground monopole HF antenna is patent-pending & copyright
> 2003-2004
> > > Francesco Errante
> > >
> > > http://www.Radiondistics.com
> > >

> > >
> >
>
> ---
> > ------
> >
> >
>
>

705. Re: Loading Coils & Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 22:46:32 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bu75bc$gr2$1@newshost.mot.com>
Source record: 101778

Mmmmm! antioxidants ... Do they have an effect on the inductance or
phase shift?

--
Steve N, K,9;d, c. i My email has no u's.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4005e5c2$1_6@corp.newsgroups.com...
> Reg Edwards wrote:
> > I'm on "Rouwke's Drift" tonight, a South African, Western Cape,
medium-dry
> > white. I can recommend it.
>
> Reg, you just gotta try the Bella Serra Merlot. It's got a lot more
> antioxidants than the above besides being absolutely delicious.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

706. Bazooka using 75 ohm coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 22:52:30 UTC
From: Phillip Jockell <philjXXX@spearnet.net>
Message-ID: <Xns9471B5D5E4C95pj12345pjpj@216.196.97.132>
Source record: 101777

How does one construct a bazooka using 75 ohm coax for the radiating portion and 50 ohm coax for the feed (as usual)? The obvious reason is that I have a pot full of random length, unused 75 cable I would like to find a good use for. Most of it is RG-6 TV coax variant or such.

I have not seen design equations for the bazooka, just articles saying "cut it to these dimensions" (don't worry your pretty little head implied, but not stated...)

Thanks for any help,

Phil - N4GWV

707. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 23:15:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40071fb0$1_1@corp.newsgroups.com>
Source record: 101779

Jim Kelley wrote:
>
> Cecil Moore wrote:
>>Moral: Be very, very careful about the when and where of t=0. Is the
>>top or bottom of an balanced antenna tuner link coil the output path
>>or the return path?
>
> :-) That explains a lot, Cecil. It points up another Moral: Don't
> write an equation and then forget where you put your point of
> reference. Your wave is moving a lot faster than your electrons. Don't
> worry about your electrons so much - they'll take care of themselves.

That's pretty much the point, Jim. The energy in the wave causes electrons to pile up closer at some places than at other places. Simply knowing the probability of the location of the physically bunched electron particles tells us everything about the waves, much as the vertical mass of water molecules tells us everything about a water wave. I say vertical mass because water is somewhat incompressible. Phasor math is not the only valid way of dealing with AC voltages and currents. Some methods don't even require the concept of "phase".
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

708. Re: Loading Coils & Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 23:17:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40072037$1_1@corp.newsgroups.com>
Source record: 101781

Steve Nosko wrote:
> Mmmmm! antioxidants ... Do they have an effect on the inductance or
> phase shift?

Definitely, Why do you think 'Oxiguard' works so well?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

709. Re: Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 23:19:55 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4007201B.B593EF00@cwis.net>
Source record: 101780

Ken,
Very simply, I doubt if a balun would do you much
good.
'Doc

710. Re: Bazooka using 75 ohm coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 23:25:58 UTC
From: "Dan Richardson"
Message-ID: <368e00lmv4dh1k980k5b78l2iurfd4kb4o@4ax.com>
Source record: 101783

On Thu, 15 Jan 2004 16:52:30 -0600, Phillip Jockell
<philjXXX@spearnet.net> wrote:

>How does one construct a bazooka using 75 ohm coax for the radiating
>portion and 50 ohm coax for the feed (as usual)? The obvious reason
>is that I have a pot full of random length, unused 75 cable I would
>like to find a good use for. Most of it is RG-6 TV coax variant or
>such.

>
>Phil - N4GWV

The only thing to be concerned about is the velocity factor to obtain
the correct lengths. The impedance is not factor.

That said, before you spend you time and money I suggest you review
Walt Maxwell's evaluation of that antenna at
http://home.iag.net/~w2du/Reflections2Chapter18DoubleBazooka.pdf

73
Danny, K6MHE

711. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-15 23:44:16 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400725D0.DE35720F@cwis.net>
Source record: 101782

Ed,
You're right, I am 'confusing' omnidirectional with
'omniazimuthal'(?). But, I think if you consider the common
use (or misuse), what I said does hold together. One
example of a vertical array as I was trying to describe is
the 'Ringo Ranger'(2 el.), which is quoted as being
'omnidirectional',
and does have gain over a single element antenna.
As for signals directly overhead, I've never had much
need in receiving them (don't 'do' much VHF/UHF where it may
be desired). And since it's obvious that you knew what I was
referring to, I'm assuming your post is intended to correct my
mis-description. For that I thank you...
'Doc

712. Re: Bazooka using 75 ohm coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 00:19:49 UTC
From: jgboyles@aol.com
Message-ID: <20040115191949.13536.00000037@mb-m24.aol.com>
Source record: 101785

>How does one construct a bazooka using 75 ohm coax for the radiating
>portion and 50 ohm coax for the feed (as usual)?

Phillip, The best thing would be to short the shield and inner conductor of the coax and use it as your typical wire dipole. The old standard 468/f(mhz) should work as a starting point. Do an swr sweep, or trim for lowest swr at your transmitter.
A 1:1 balun at the antenna is good engineering practice to minimize transmission line radiation. Be aware that the magical 1:1 swr may not be possible feeding a dipole with 50 ohm coax.
Modern literature on the subject of bazookas indicate they will give broader bandwidth at the expense of decreased efficiency. Depends on what you want from your antenna.
73 Gary N4AST

713. Re: vertical dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 00:20:03 UTC
From: Robin <me@here.com>
Message-ID: <40072e49$0$206$fa0fcedb@lovejoy.zen.co.uk>
Source record: 101784

"Desmoface" <desmoface@aol.com> wrote in message
news:20040108135102.07996.00002426@mb-m16.aol.com...
> Hey kids..I know gap kind of does this..but anyone think a verticle dipole
> would work...basically a vertical fed in the center...Im wanting a good 10
> meter antenna for local stuff and was thinking about a conventional
> vertical..than I thought maybe I could do without the radial system and
ground
> loss issue but just putting up a vertical dipole for 10...any thoughts??
>
> Steve
> kb8viv
you can easily build a Dipole.. but for the hastle.. are not such things
just as easy to buy?
Suggest you take a look at the local CB shop. There are 1/2 wave dipoles
available here in the UK for less than ?20 ($35 US) All you need to do is
make the antenna shorther than it would be for CB, (appx 8 1/2 feet per
side).
http://www.geocities.com/Augusta/7117/antenna.html may be of use to you..

Robin

714. Re: Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 00:30:47 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <bu7bbp$e2v6r$1@ID-213023.news.uni-berlin.de>
Source record: 101786

"'Doc" <w5lz@cwis.net> wrote in message news:4007201B.B593EF00@cwis.net...
>
>
> Ken,
> Very simply, I doubt if a balun would do you much
> good.
> 'Doc

Thanks for the simple answer - I think I'll keep
on going with what I've got.....

Ken KG0WX

715. Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 00:41:15 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0401151641.1bee0037@posting.google.com>
Source record: 101787

I found it interesting to read on a particular
antenna page that the antenna future will revolve
around what the person was presenting.
He may well be correct if we are all lemmings but
people who piddle with antennas are a different breed.
Personaly I see antennas gyrating towards smaller
antennas where radiation per unit length will finish
at the top of the heap
Antenna engineers have become so focussed on the half
wave patterns that they have completely ignored the
low efficiency portions at the ends of a half wave
antenna. Future antennas most surely will remove these
low efficient radiator parts together with the addition
of coupling techniques that will help to move away
from the Yagi syndrome, together with resolving the
of a "lossless" coupling direct to the transmitter
that will obsolete the need of matching interface.
Ofcourse this is where my intersts lie, but does this
vision of the future match yours or am I thinking
of the impossible? One noted Russion scientist stated
that theoretically radiation can come from a single point,
is this part of our future or just an impossible dream ?
Best regards, and please put your pea shooters aside
and try to get along rather than looking for
ten seconds of cheap glory.

Art Unwin KB9MZ......XG

716. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 01:13:15 UTC
From: jgboyles@aol.com
Message-ID: <20040115201315.13536.00000040@mb-m24.aol.com>
Source record: 101788

>He may well be correct if we are all lemmings.

Are they the rats that jump off the cliff into the sea? If they are, I am not one of them.

>people who piddle with antennas are a different breed.

I experiment with antennas, but piddle? I thought in Olde English that meant something else.

The rest of you post was interesting, could you provide more detail? What is "Yagi syndrome" and lossless coupling to the transmitter?

73 Gary N4AST

717. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 01:52:30 UTC
From: tdonaly@aol.com
Message-ID: <20040115205230.28470.00000023@mb-m15.aol.com>
Source record: 101789

Art wrote,
>Antenna engineers have become so focussed on the half
>wave patterns that they have completely ignored the
>low efficiency portions at the ends of a half wave
>antenna.

What low efficiency portions?
73,
Tom Donaly, KA6RUH

718. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 02:13:18 UTC
From: "Dan Richardson"
Message-ID: <a4ie00tsr6vp9phld2lih73hqv0uaahtcq@4ax.com>
Source record: 101790

On 15 Jan 2004 16:41:15 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>I found it interesting to read on a particular
>antenna page that the antenna future will revolve
>around what the person was presenting.
>He may well be correct if we are all lemmings but
>people who piddle with antennas are a different breed.
>Personaly I see antennas gyrating towards smaller
>antennas where radiation per unit length will finish
>at the top of the heap
>Antenna engineers have become so focussed on the half
>wave patterns that they have completely ignored the
>low efficiency portions at the ends of a half wave
>antenna. Future antennas most surely will remove these
>low efficient radiator parts together with the addition
>of coupling techniques that will help to move away
>from the Yagi syndrome, together with resolving the
>of a "lossless" coupling direct to the transmitter
>that will obsolete the need of matching interface.
>Ofcourse this is where my intersts lie, but does this
>vision of the future match yours or am I thinking
>of the impossible? One noted Russion scientist stated
>that theoretically radiation can come from a single point,
>is this part of our future or just an impossible dream ?
>Best regards, and please put your pea shooters aside
>and try to get along rather than looking for
>ten seconds of cheap glory.
>
>Art Unwin KB9MZ......XG

Hitting the juice again eh?

Danny, K6MHE

719. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 02:39:56 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <0aINb.76927$8H.114646@attbi_s03>
Source record: 101791

"Dan Richardson @mendolink.com>" <<ChangeThisToCallSign> wrote in message
news:a4ie00tsr6vp9phld2lih73hqv0uaahtcq@4ax.com...
> On 15 Jan 2004 16:41:15 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
>
> >I found it interesting to read on a particular
> >antenna page that the antenna future will revolve
> >around what the person was presenting.
> >He may well be correct if we are all lemmings but
> >people who piddle with antennas are a different breed.
> >Personaly I see antennas gyrating towards smaller
> >antennas where radiation per unit length will finish
> >at the top of the heap
> >Antenna engineers have become so focussed on the half
> >wave patterns that they have completely ignored the
> >low efficiency portions at the ends of a half wave
> >antenna. Future antennas most surely will remove these
> >low efficient radiator parts together with the addition
> >of coupling techniques that will help to move away
> >from the Yagi syndrome, together with resolving the
> >of a "lossless" coupling direct to the transmitter
> >that will obsolete the need of matching interface.
> >Ofcourse this is where my intersts lie, but does this
> >vision of the future match yours or am I thinking
> >of the impossible? One noted Russion scientist stated
> >that theoretically radiation can come from a single point,
> >is this part of our future or just an impossible dream ?
> >Best regards, and please put your pea shooters aside
> >and try to get along rather than looking for
> >ten seconds of cheap glory.
> >
> >Art Unwin KB9MZ......XG
>
> Hitting the juice again eh?
>
> Danny, K6MHE
>
And your reason for saying that is..... what?
Art

>
>
>
>

720. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 04:04:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <adoe00dgo4mti9k9kntffq1f9ok7gp3vgp@4ax.com>
Source record: 101792

On Fri, 16 Jan 2004 02:39:56 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:
>> Hitting the juice again eh?
>>
>> Danny, K6MHE
>>
>And your reason for saying that is..... what?
>Art

Probably because you passed up four technical questions:
>>could you provide more detail?
>>What is "Yagi syndrome"
>> lossless coupling to the transmitter?
>>What low efficiency portions?
to indulge yourself asking this.

721. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 04:14:14 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <qyJNb.63637$sv6.144027@attbi_s52>
Source record: 101793

For goodness sake why don't you and Danny put away your pea shooters and handle yourselves in an orderly manner. I have not avoided or passed up any questions, I am just in a standby mode to see what others visualise as what the future might bring or what they would like to see ,after which I will elaborate on my thoughts even tho
some lurkers such as yourself may well be concentrating on distance and accuracy of their pea shooters.
Art
"Richard Clark" <kb7qhc@comcast.net> wrote in message news:adoe00dgo4mti9k9kntffq1f9ok7gp3vgp@4ax.com...
> On Fri, 16 Jan 2004 02:39:56 GMT, " Art Unwin KB9MZ"
> <aunwin@insightbb.com> wrote:
> >> Hitting the juice again eh?
> >>
> >> Danny, K6MHE
> >>
> >And your reason for saying that is..... what?
> >Art
>
> Probably because you passed up four technical questions:
> >>could you provide more detail?
> >>What is "Yagi syndrome"
> >> lossless coupling to the transmitter?
> >>What low efficiency portions?
> to indulge yourself asking this.
>

722. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 04:29:08 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40076894.552B47A9@cwis.net>
Source record: 101794

Richard,
My peashooter is racked. Guess that means I'm just
lurking? But I'm really enjoying the turkey shoot.
'Doc

723. Re: EH Antenna Revisited

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 04:34:31 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401152034.28467e4e@posting.google.com>
Source record: 101795

Walter Maxwell <w2du@iag.net> wrote in message
>
> I'm saying there is no such device as an 'EH' antenna.

Oh, I agree totally. I consider it no different than any other small loaded antenna stuck on top of a tower. Well, except that it's less efficient than many...:(But even noting that, to me, the test is a semi-sham also. Not really due to problems from the test consultants, but from including an obviously radiating structure and feedline with this antenna during the test. This *requires* the same height tower "90 ft" to be included under the antenna in order to match the results they show. Dunno, they may have done a decent job of testing, but someone in the office should have noted that the obviously radiating tower and feedline would skew the results. They use no decoupling of the feedlines. In their info, they never state that a tower is a required section of this antenna. They consider it only a support, and they claim it or the feedline doesn't radiate.
If I had been the test consultant, I would have demanded the antenna be placed on a non metallic structure, and to either have the transmitter at the feedpoint, or use a well decoupled feedline. If they refused, I would have declined the job, being I would have realized the results would be not a result of the small antenna, but also include the radiating tower and feedline. And thus be pretty much of a joke if you really want to test the antenna alone on it's own merits. And to add insult to injury, the comparison low tech B/C tower won the contest. I have seen notes that he states these antennas could be roof mounted. I wonder what he will use as the *main* radiator in this case, if there is no 90ft tower on the roof. I guess the radiation from the feedline will have to do the job...Which could be partly indoors, and could even be shielded by metal in places. Hot shack RF wise too I bet. Most real world E/H tests mention this problem. What a mess... :/ I don't see broadcast stations lining up for this system. Only a few gullable hams...:(MK

724. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 04:41:18 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <0dqe00lkkllhdjnj4tp45en8rcmtd4ujk5@4ax.com>
Source record: 101796

On 14 Jan 2004 11:54:38 -0800, soleti_rocco@katamail.com (Rocco)
wrote:

I'm basing my answer on the subject line word "hard" and the "shielded
environment" statement below.

>Hi,
>I have to provide mobile phone signal in a shielded environment.
>Maybe the only way is by using an antenna that capture a sufficiently
>strong signal outside the shielded room, and conveying that signal (

If it is truly a shielded room...forget it.
It was shielded for a reason and you used the term "hard" suggesting
it was intended to be shielded. Causing that shielding to fail could
be grounds for hunting for a new job.

>using a coax-cable) inside it, at the end of the cable some sort of
>repeater that provide the diffusion.

IF you could get a passive repeater to work you would be causing a
loss of integrity to the shielded room. I've never gotten a passive
repeater to relay a signal strong enough to be useful.

>Does anyone has some other suggestion?
>Or if the idea is correct, are those repeater in commerce?
>And about the receiving antenna?
>Thanks in advance.

Unless, contrary to your phrasing the room is not shielded by intent
you really need to forget the whole thing.

I used to have a work area in a double walled shielded cage. When the
door was closed we could take 5 watt HTs less than a foot apart... One
outside and one inside. We could see and hear each other through the
screen but the HTs could not. Anything that could have let a signal
in would have negated the purpose of the room.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
>RoS

725. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 06:03:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1hve00td2v6uokg3pci7mno0vjl1tiru3q@4ax.com>
Source record: 101797

On Fri, 16 Jan 2004 04:14:14 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:
> I have not avoided or passed up any questions,
>> >>could you provide more detail?
>> >>What is "Yagi syndrome"
>> >> lossless coupling to the transmitter?
>> >>What low efficiency portions?
Twice denied

726. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 06:09:40 UTC
From: Roger Gt <Xenot@pacbell.net>
Message-ID: <EeLNb.1643$Lg1.1199@newssvr29.news.prodigy.com>
Source record: 101798

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:20944-4006BD00-34@storefull-3255.bay.webtv.net...
> Roger wrote:
> "Any special considerations?"
>
> A dipole in the HF range using aluminum strip 10 inches wide and .006
> inches thick has a small length to width ratio and that`s good for
> bandwidth. The width is sufficient for good surface conduction and that
> is good for efficiency.
>
> Most data are for copper but aluminum is only 1.6X as resistive as
> copper, so there is not much electrical difference in performance. .006
> inch is sufficiently thick to prevent significant RF penetrationat at
> HF, and if RF did penetrate it would not be detrimental.
>
> Bandwidth of an antenna may be determined by acceptable directional
> character or it may be determined by acceptable drivepoint impedance.
>
> Ed Laport in "Radio Antenna Engineering" has made a "Free-Space Dipole
> Characteristics" table for bandwidth as limited to the region where the
> antenna`s reactance is less than its radiation resistance at resonance.
>
> At 10 MHz, a dipole made of Roger`s aluminum strip would have an
> equivalent length over diameter (L/D) of about 59.
>
> From Laport`s Fig. 3.1 on page 248, a dipole of L/D of 200 would be
> resonant at an electrical length of 168.3-degrees. Its 3 dB bandwidth is
> 11.2% and its 1 dB bandwidth is 5.6%. The aluminum strip dipole at 10
> MHz has a smaller effective L/D and produces a wider bandwidth than any
> shown in Laport`s table.
>
> Consult "Radio Antenna Engineering" for more information.
>
> Best regards, Richard Harrison, KB5WZI

Thanks, that is the kind of reference and information I was seeking. I'll
get the book too!

727. Good HF Antenna and Location on Semi?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 07:57:32 UTC
From: Jeff <jlange6837@hotmail.com>
Message-ID: <MPMNb.24660$4l3.23522@nwrddc02.gnilink.net>
Source record: 101799

I've been told that Mounting an antenna between cab and trailor is going to cause reflectivity problems and more than likely will harm SWR and wont get out very good . anyone have any ideas for a truck driver needing a good location for HF bands?

Maybe the BB3 so no worries as to needing a tuner....but where to put the darn thing hehe

Any info would be appreciated

Jeff (KB7GZE)

728. Re: Good HF Antenna and Location on Semi?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 08:12:18 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40079CE2.32D84FD5@cwis.net>
Source record: 101800

Jeff,
Placing an antenna between two 'layers' of metal, the cab
and the trailer, really isn't the 'best' idea in the world.
Getting it as 'in the clear' as possible is a very good idea.
With that in mind, where ~can~ you mount an HF antenna on your
truck? Also keeping in mind that due to the nature of a tractor
and trailer, there's really not going to be a good place, but
several that are 'less bad' than others, both electrically and
probably more important, mechanically.
Not the most informative answer, but I'm sure you know your
truck much better than I do...
'Doc

729. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 09:36:37 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <4007B0A5.3000201@optusnet.com.au>
Source record: 101801

A passive repeater? Basically an antenna both inside and outside the room joined by a piece of coax.. Yes it works. I had it working with my 2m HT inside the home unit with a yagi sitting at the end of the hallway, coax connected to the 5/8 on the roof of the house. (Only used the yagi cause it was handy) Maybe 2-3 S points better at the time. (best guess)

One of our guys at work has a similar setup for his mobile phone on 1800Mhz at his home QTH in a valley. Since we install mobile phone sites I guess he would know.. He goes from no signal to noise free, how ever many dB that is. Uses two mobile whips and about 10m of RG58 (yuk!)

Of course you'll have some losses in the system. Try it! Just remember that coax losses on phone frequencies are kind of high so I suggest you put the external antenna into a strong signal and think about using lower loss cable. The trick is to experiment until you get a good enough signal to use! (Unlike others I assume you want more than one phone to work inside the room and that it needs to be portable)

I wont make any comments about filling the shielded room with other signals!

Repeaters are a little expensive but they do exist. We often do installs in shopping centres, underground railways and high rise buildings using such equipment. (Where you actually want a small coverage area) I am pretty sure you can get an active wide band repeater as well. Since the phone uses separate TX and RX freqs and you have a shielded room you could get away with an amplifier running in each direction. (We did that also for a UHF voice repeater on 400MHz with 5.5MHz separatation - in a tunnel) Need a good set of cavities though. The installs that we do are often extended using optical fibre at the RF frequency with antenna interfaces at the remote end. You are talking a few bucks here by the way. Go and have a look at Nokia's website if the passive one fails..

Cheers Bob VK2YQA

Rocco wrote:
> Hi,
> I have to provide mobile phone signal in a shielded environment.
> Maybe the only way is by using an antenna that capture a sufficiently
> strong signal outside the shielded room, and conveying that signal (
> using a coax-cable) inside it, at the end of the cable some sort of
> repeater that provide the diffusion.
> Does anyone has some other suggestion?
> Or if the idea is correct, are those repeater in commerce?
> And about the receiving antenna?
> Thanks in advance.

>
> RoS

730. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 12:22:44 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <xHQNb.5742$A74.1855@fed1read02>
Source record: 101802

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0401151641.1bee0037@posting.google.com...
> I found it interesting

SNIP

> and try to get along rather than looking for
> ten seconds of cheap glory.
>
> Art Unwin KB9MZ......XG

Ten seconds of cheap glory is often all you get.

Ed
wb6wsn

731. Re: ON4SKY website updates

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 12:31:08 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <4007DBE2.D86EFFDB@uwe.ac.uk>
Source record: 101804
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

MD wrote:
>
> "Thierry" <To answer me in private use
> http://www.astrosurf.com/lombry/post.htm> wrote in message
> news:40045e9d$1_2@news.vo.lu...
> > Hi OM,
> >
> > For the novices, and mayube the OT, here are some pages updated on my
> > website about antennas:
> > http://www.astrosurf.com/lombry/menu-qsl.htm
>
> I especially liked the section titled "How to Become an Amateur Radio"
> I guess if I could become an amateur radio I would want to be the FT1000MP
> or the TS950SDX.
> I guess when I was younger I wanted to be an HW-8,

I think I'd rather be an FT1000D or soon an IC7800 ;-)

vy 73

Andy, M1EBV

732. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 12:35:03 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <4TQNb.5743$A74.2454@fed1read02>
Source record: 101803

"'Doc" <w5lz@cwis.net> wrote in message news:400725D0.DE35720F@cwis.net...
> Ed,
> You're right, I am 'confusing' omnidirectional with
> 'omniazimuthal'(?). But, I think if you consider the common
> use (or misuse), what I said does hold together. One
> example of a vertical array as I was trying to describe is
> the 'Ringo Ranger'(2 el.), which is quoted as being
> 'omnidirectional',
> and does have gain over a single element antenna.
> As for signals directly overhead, I've never had much
> need in receiving them (don't 'do' much VHF/UHF where it may
> be desired). And since it's obvious that you knew what I was
> referring to, I'm assuming your post is intended to correct my
> mis-description. For that I thank you...
> 'Doc

Doc & Richard:

I wasn't trying to correct anybody, but I was being a bit pedantic in defining "omnidirectional." People often approach the subject of antenna patterns with a set of "assumed conventions", based on their area of interest. TV broadcasters are near universally trying to target receivers that are essentially at ground level. Any power directed more than just a bit above horizontal is wasted power! But if you design GPS antennas, you do a lot of thinking about the pattern at higher elevations.

If we stick to a rigorous interpretation of a three-dimensional co-ordinate system, we can talk about any kind of antennas for any kind of service.

Ed
wb6wsn

733. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 12:41:53 UTC
From: jaroslavlipka@msn.com
Message-ID: <d7855f42.0401160441.703e296b@posting.google.com>
Source record: 101805

'Doc <w5lz@cwis.net> wrote in message news:<40076894.552B47A9@cwis.net>...
> Richard,
> My peashooter is racked. Guess that means I'm just
> lurking?

Nah, it means your in your usual position, riding on someone else's shirt tail.

734. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 12:47:47 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <03RNb.5744$A74.1233@fed1read02>
Source record: 101806

"Roger Halstead" <mynews@rogerhalstead.com> wrote in message
news:0dqe00lkkllhdjnj4tp45en8rcmtd4ujk5@4ax.com...
> On 14 Jan 2004 11:54:38 -0800, soleti_rocco@katamail.com (Rocco)
> wrote:
>
> I'm basing my answer on the subject line word "hard" and the "shielded
> environment" statement below.
>
> >Hi,
> >I have to provide mobile phone signal in a shielded environment.
> >Maybe the only way is by using an antenna that capture a sufficiently
> >strong signal outside the shielded room, and conveying that signal (
>
> If it is truly a shielded room...forget it.
> It was shielded for a reason and you used the term "hard" suggesting
> it was intended to be shielded. Causing that shielding to fail could
> be grounds for hunting for a new job.
>
> >using a coax-cable) inside it, at the end of the cable some sort of
> >repeater that provide the diffusion.
>
> IF you could get a passive repeater to work you would be causing a
> loss of integrity to the shielded room. I've never gotten a passive
> repeater to relay a signal strong enough to be useful.
>
> >Does anyone has some other suggestion?
> >Or if the idea is correct, are those repeater in commerce?
> >And about the receiving antenna?
> >Thanks in advance.
>
> Unless, contrary to your phrasing the room is not shielded by intent
> you really need to forget the whole thing.
>
> I used to have a work area in a double walled shielded cage. When the
> door was closed we could take 5 watt HTs less than a foot apart... One
> outside and one inside. We could see and hear each other through the
> screen but the HTs could not. Anything that could have let a signal
> in would have negated the purpose of the room.
>
> Roger Halstead (K8RI & ARRL life member)
> (N833R, S# CD-2 Worlds oldest Debonair)
> www.rogerhalstead.com
>
> >

> >RoS
>

I regularly use passive and active "repeaters" to convey RF signals into a shielded enclosure.

Sometimes, I'm testing a system that requires a GPS signal. I use an active GPS antenna on the roof of my building, a 75-foot run of semi-rigid coax, and then into a low-noise pre-amp. The output of the pre-amp goes to a coaxial feedthrough port, and, on the inside of the chamber, I mount a passive GPS antenna (as a radiator). The active GPS antenna has a very narrow bandwidth, so out-of-band signals are reasonably well rejected and not imported into the chamber.

Other times, I may be testing a device with a VHF / UHF data link. I usually just put a simple rod antenna in the chamber, mounted directly to the coax feedthrough port. Outside the chamber, I run coax to a test set / simulator, or I connect another rod antenna. True, this introduces more RF garbage into the chamber, but, if it becomes a problem, I can just stick a band-pass filter into the coax line. Works every time for me.

Ed
wb6wsn

735. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 14:04:34 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <SbSNb.79473$I06.341181@attbi_s01>
Source record: 101807

Hi Gary, seems like your the only one that is interesred in antennas on this
Jerry Springer group, so an answer there is.
Piddle means to mess around with things, since I am from
East London it could well be Olde English
With regard to efficiency per unit length. It is well known that the ends of
a 1/2 wave dipole can be lopped off without any noticable difference which
can be seen by the area lost under the normal current flow diagrams, so
efficiency can immediatly improved. When shortening the dipole even more we
get a transition to a straight line current flowline inplace of the sino
soidal curve which again shows a further inefficient portion at the ends
that can be lopped of. What this then shows that we can have a higher
current distribution per unit length with the mainly efficient portion in
the center of the dipole. Now one is in position to introduce a phase change
where one can have two dipoles in the same space taken up in the beginning,
collinier in form and containing only the mainly high efficient portions of
the center of a normal dipole. I see no reason why this transition can be
followed over and over again until the radiator contains an area under the
current curve that is uniform. Transformation to spot radiation
is totaly another matter which I believe should be left to our descendents.
Since you are an experimentor I would be happy to discuss my thoughts
privately rather than take up valuable space that is required for auguments
and pea shooters
Best regards
Art Unwin

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040115201315.13536.00000040@mb-m24.aol.com...
> >He may well be correct if we are all lemmings.
>
> Are they the rats that jump off the cliff into the sea? If they are, I am
not
> one of them.
>
> >people who piddle with antennas are a different breed.
>
> I experiment with antennas, but piddle? I thought in Olde English that
meant
> something else.
>
> The rest of you post was interesting, could you provide more detail?
What is
> "Yagi syndrome" and lossless coupling to the transmitter?
>
>

> 73 Gary N4AST

736. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 14:43:14 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <bu8ta3$euh9m$1@ID-175933.news.uni-berlin.de>
Source record: 101808

Ed wb6wsn wrote:

> Doc & Richard: I wasn't trying to correct anybody ...

Me either, just pointing out that antenna patterns can be omnidirectional in one plane, and not in another. By this reality the original poster's phrase "omnidirectional beam" may not be a conflict of terms.

In the case of most FM/TV broadcast antennas, the net pattern basically is omni in the horizontal plane, and a narrow beam in the vertical plane. This can increase their peak h-plane gain well above that of a simple dipole -- to produce an "omni antenna with gain," by FCC definition.

RF

737. Re: Good HF Antenna and Location on Semi?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 14:54:49 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4006a44b_1@newsfeed.slurp.net>
Source record: 101809

Jeff, look at the Hi-Q antenna - they are more heavily-built, and are gaining a lot of popularity with local drivers. Believe it or not, a lot of them are mirror-mounting those monsters...

73,
Mike KI6PR
El Rancho R.F., CA

"Jeff" wrote
> I've been told that Mounting an antenna between cab and trailor is going to
> cause reflectivity problems and more than likely will harm SWR and wont get
> out very good . anyone have any ideas for a truck driver needing a good
> location for HF bands?
>
> Maybe the BB3 so no worries as to needing a tuner....but where to put the
> darn thing hehe
>
> Any info would be appreciated
>
> Jeff (KB7GZE)
>
>

738. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 15:06:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4007fe42_2@127.0.0.1>
Source record: 101810

Art Unwin KB9MZ wrote:
> Piddle means to mess around with things, ...

My unabridged dictionary says it has a second meaning.
There are many piddling contests on r.r.a.a :-)
--
73, Cecil, W5DXP

739. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 16:47:59 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <3BUNb.79946$8H.116253@attbi_s03>
Source record: 101811

Andy there is an old saying " let the buyer beware"
How much did you PAY Reg for using his software
and did you get what you PAID for ?
Cheers mate
Art

"Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
news:4006ACDA.E929C386@uwe.ac.uk...
> Andy Cowley wrote:
> >
> > "Dan Richardson <" wrote:
> > >
> > > On Thu, 15 Jan 2004 13:02:25 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
> > > wrote:
> > >
> > > >You also have modelling programs which don't work.
> > >
> > > Can you please provide a list of these "non-working" programs?
> > >
> > > Danny, K6MHE
> >
> > Dear Dan,
> >
>
> An addition to my last post about Reg's dipole3.exe:-
>
> With these settings l=1, h=6, w=1.5, s=0.2, f=1.8, 'Input resistance' is
given
> as 248.4 ohms. Even if it is assumed that all the antenna current flows to
the
> end of the wire, the wire resistance can't exceed 0.08 ohms, the correct
figure
> being closer to 0.04 ohms, assuming linear current distribution. For a
short
> antenna it is obvious that the radiation resistance must be less than that
of
> a dipole in free space i.e. less than 73 ohms. That leaves a contribution
of
> at least 175 ohms for the ground losses. Increasing height to h=1000
> (effectively free space) the ground resistance falls to 136 ohms. There
> is something very wrong here. Increasing the wire diameter produces big
> reductions in the 'Input resistance'. I feel that the RF wire
resistance/wire
> losses are being incorrectly calculated.

>
> I'm fully prepared to be corrected if I'm wrong about this but Reg has so
far
> failed to give any satisfactory explanation of the results I obtained. If
I am
> wrong, I will, of course , make an unreserved apology to Reg.
>
> Perhaps someone with more skill and knowledge than I have can check what
I've
> done? I used EZNEC to simulate an identical aerial and got very different
results.
>
>
>
> vy 73
>
> Andy Cowley, M1EBV

740. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 16:59:48 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40081884.2EBA6A37@cwis.net>
Source record: 101812

Jaro,
Thanks! Still batting a 1000, I see...
All wrong.
'Doc

741. Re: Bazooka using 75 ohm coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 17:30:04 UTC
From: k7itm@aol.com
Message-ID: <3200347.0401160930.56cb0b7e@posting.google.com>
Source record: 101813

Since "bazooka" conjures up at least three pretty different images for me (and that's just with respect to antennas), could you explain a bit more just how you're thinking of building it? Is it like http://www.qsl.net/we6w/projects/baz_std.txt? If so, I believe you want to make the coax sections close to 1/4 wave long, accounting for the velocity factor of the coax you use. Expect the coax part, as transmission lines, to reflect a reactance back to the feedpoint...the reactance they reflect as a function of frequency does depend on the impedance of the line you use. You could model it with EZNec, or use any of the many available transmission line calculators to find it. What's across the feedpoint is just the two sections in series. The radiating part of the antenna is just the outside surface of the coax (or whatever conductors you have).

Cheers,
Tom

Phillip Jockell <philjXXX@spearnet.net> wrote in message news:<Xns9471B5D5E4C95pj12345pjpj@216.196.97.132>...
> How does one construct a bazooka using 75 ohm coax for the radiating
> portion and 50 ohm coax for the feed (as usual)? The obvious reason
> is that I have a pot full of random length, unused 75 cable I would
> like to find a good use for. Most of it is RG-6 TV coax variant or
> such.
>
> I have not seen design equations for the bazooka, just articles
> saying "cut it to these dimensions" (don't worry your pretty
> little head implied, but not stated...)
>
>
> Thanks for any help,
>
> Phil - N4GWV

742. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 17:32:51 UTC
From: tdonaly@aol.com
Message-ID: <20040116123251.11385.00000093@mb-m05.aol.com>
Source record: 101814

Art wrote,
>With regard to efficiency per unit length. It is well known that the ends of
>a 1/2 wave dipole can be lopped off without any noticable difference which
>can be seen by the area lost under the normal current flow diagrams, so
>efficiency can immediatly improved. When shortening the dipole even more we
>get a transition to a straight line current flowline inplace of the sino
>soidal curve which again shows a further inefficient portion at the ends
>that can be lopped of.
>

Hi, Art,
The above is untrue. Efficiency only has to do with the ratio of radiation resistance
to total resistance. Also, the idea that the only part of an antenna that contributes
to radiation is the center part because it carries most of the current is also untrue.
The claim probably originates from the fact that most antenna parameters can be

calculated given a knowledge of current distribution. It's a false leap of logic
to conclude that there are portions of a half wave dipole that don't radiate, though. Since
those areas have high changing charge densities which are associated with changing electrical fields which..., and so on, they radiate quite well.
I don't think most amateurs want to diddle around with infinitesimal dipoles, anyway,
Art, which is what they'd end up with if they implemented your ideas. An array of
infinitesimal dipoles such as you're suggesting would be fun to make, but I doubt
the wisdom of expecting increased efficiency from it.
73,
Tom Donaly, KA6RUH

(P.S. Art, I hope you don't equate disagreement with ridicule. I reserve all my

ridicule for Cecil since he can take it.)

743. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 18:20:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40082bc4_2@127.0.0.1>
Source record: 101815

Tdonaly wrote:
> (P.S. Art, I hope you don't equate disagreement with ridicule. I reserve all my
> ridicule for Cecil since he can take it.)

>> ....

Tom, I notice you have not posted your calculations for
the phase angles of those superposed phasors I presented
yesterday. Did you come up with any phase angle other
than zero and 180 degrees? Do you understand why Kraus'
phase graph for standing wave current contains only two
possible values of phase?
--
73, Cecil, W5DXP

744. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 18:32:06 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <wdOdnXS6acSos5XdRVn-vA@comcast.com>
Source record: 101816

"Richard Fry" <rfry@adams.net> wrote in message
news:bu665d$e0066$1@ID-175933.news.uni-berlin.de...
> Broadcasters use arrays of antenna elements aligned on a vertical axis to
> produce maximum gain in, and near the horizontal plane. Typically each of
> these elements is omnidirectional in the azimuth plane, arrayed at about 1
> lambda vertical intervals, and driven with equal power and phase.
>
> A slide show and tech papers on these topics are available following the
> "Papers" button at http://rfry.org.
>
> R. Fry
>
This must work quite well. I used to live about 5 miles from a channel 11
transmitter whose antennas were on a 1600 foot tower. To serve people who
lived close, they tapped off some of the RF to a clunker antenna at about 50
feet.

Tam/WB2TT

745. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 18:37:11 UTC
From: Brian Howie <brian@nospam.demon.co.uk>
Message-ID: <M1gX+wAX9CCAFwpJ@b-howie.demon.co.uk>
Source record: 101817

In message <85ed38d.0401151641.1bee0037@posting.google.com>, Art Unwin KB9MZ <aunwin@insightbb.com> writes
>
>Antenna engineers have become so focussed on the half
>wave patterns that they have completely ignored the
>low efficiency portions at the ends of a half wave
>antenna.

Yes, the midldle high current bit generates the H field, but you forget that the end high voltage bits are needed to generate the E field. The antenna 1/4 wave physical length is needed to get these in the correct phase.

Now it should be possible to make a compact antenna where you can generate the H field from a current element and the electric field from a voltage element, making sure that the 1/4 phasing is preserved between the voltage and current. Naah it wouldn't work :p

Brian GM4DIJ

--
Brian Howie

746. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 18:41:21 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <lfWNb.80409$8H.116050@attbi_s03>
Source record: 101818

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20040116123251.11385.00000093@mb-m05.aol.com...
> Art wrote,
> >With regard to efficiency per unit length. It is well known that the ends
of
> >a 1/2 wave dipole can be lopped off without any noticable difference
which
> >can be seen by the area lost under the normal current flow diagrams, so
> >efficiency can immediatly improved. When shortening the dipole even more
we
> >get a transition to a straight line current flowline inplace of the sino
> >soidal curve which again shows a further inefficient portion at the ends
> >that can be lopped of.
> >
>
> Hi, Art,
> The above is untrue. Efficiency only has to do with the ratio of
radiation
> resistance
> to total resistance. Also, the idea that the only part of an antenna that
> contributes
> to radiation is the center part because it carries most of the current is
also
> untrue.
> The claim probably originates from the fact that most antenna parameters
can be
>
> calculated given a knowledge of current distribution. It's a false leap
of
> logic
> to conclude that there are portions of a half wave dipole that don't
radiate,
> though.
Don't make up a false augument, nowhere do I say that parts of a dipole
does not radiate, soon you will have half the neibourhood up in arms
regarding something I didn't say. As for your parlying the term 'false' so
liberaly it is clear that you were sleeping during class, but then even
those who know little of radiation can have an oponion.
So what is your vision of the future with respect to antenna and are you
doing anything to make that vision come true i.e. walking the walk.or are
your jollies gained by shooting at those such as Cecil that does have the
required knoweledge? On top of all that read carefully regarding'
efficiency' since I have qualified it as ' per unit length'
Best regards

Art Unwin

Since
> those areas have high changing charge densities which are associated with
> changing electrical fields which..., and so on, they radiate quite well.
> I don't think most amateurs want to diddle around with infinitesimal
> dipoles, anyway,
> Art, which is what they'd end up with if they implemented your ideas.
Lots of words but all meaningless, I never said that I was persueing the ultimate point radiation suggestion. I
experiment to the point that all antennas regardles of frequency can be made such that they are rotatable in the horisontal mode which means for 160 meters inovation has to be involved to reduced such a monster such that it can be rotated around its center point. I HVE REACHED THAT POINT AT THE PRESENT TIME and am now looking at ways to reduce it further, but maybe the next generation will achieve that jump.! I fully expect that somebody will say I have violated a law of old but until then I will continue to use it on the bands

An array
> of
> infinitesimal dipoles such as you're suggesting would be fun to make, but
I
> doubt
> the wisdom of expecting increased efficiency from it.
> 73,
> Tom Donaly, KA6RUH
>
> (P.S. Art, I hope you don't equate disagreement with ridicule. I reserve
all my
>
> ridicule for Cecil since he can take it.)
>
I don't see why he should take it! We have lost so many talented people from this group Tom,Gary Roy and so on
but we are still not at the point where Richard and his followers (not Richard Harrison) pseudo Doktors and what ever have the forum completely to themselves.
Regards
Art Unwin KB9MZ.....XG

747. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 18:52:58 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <eqWNb.80456$8H.116687@attbi_s03>
Source record: 101719

Hmmmm
They said that the idea of break dancing was an impossibility but they have
classes for same in East St Louis Students are not allowed to graduate
until thay exhibit the ability of removing a hub cap off of a moving vehicle
!
They probably have the same class in The Goebals
Regards
Art

"Brian Howie" <brian@nospam.demon.co.uk> wrote in message
news:M1gX+wAX9CCAFwpJ@b-howie.demon.co.uk...
> In message <85ed38d.0401151641.1bee0037@posting.google.com>, Art Unwin
> KB9MZ <aunwin@insightbb.com> writes
> >
> >Antenna engineers have become so focussed on the half
> >wave patterns that they have completely ignored the
> >low efficiency portions at the ends of a half wave
> >antenna.
>
> Yes, the midldle high current bit generates the H field, but you forget
> that the end high voltage bits are needed to generate the E field. The
> antenna 1/4 wave physical length is needed to get these in the correct
> phase.
>
> Now it should be possible to make a compact antenna where you can
> generate the H field from a current element and the electric field from
> a voltage element, making sure that the 1/4 phasing is preserved between
> the voltage and current. Naah it wouldn't work :p
>
> Brian GM4DIJ
>
> --
> Brian Howie

748. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 19:07:18 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <GDWNb.49463$6y6.1018610@bgtnsc05-news.ops.worldnet.att.net>
Source record: 101720

Art,

You just received two serious and legitimate responses from Tom and Brian. You proceeded to trash each of them for their contributions.

How do you expect to get useful input if you are not willing to accept anything that does not agree with your preconceived notions?

YOU are the one with the loaded pea shooter.

Shame on you!

73,
Gene
W4SZ

Art Unwin KB9MZ wrote:
> Hmmmm
> They said that the idea of break dancing was an impossibility but they have
> classes for same in East St Louis Students are not allowed to graduate
> until thay exhibit the ability of removing a hub cap off of a moving vehicle
> !
> They probably have the same class in The Goebals
> Regards
> Art

749. Re: Bazooka using 75 ohm coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 19:24:48 UTC
From: Phillip Jockell <philjXXX@spearnet.net>
Message-ID: <Xns9472929E79836pj12345pjpj@216.196.97.132>
Source record: 101721

Actually, I believe it is called the double bazooka.
What three images are conjured???

thanks and 73
phil

k7itm@aol.com (Tom Bruhns) wrote in
news:3200347.0401160930.56cb0b7e@posting.google.com:

> Since "bazooka" conjures up at least three pretty different images for
> me (and that's just with respect to antennas), could you explain a bit
> more just how you're thinking of building it? Is it like
> http://www.qsl.net/we6w/projects/baz_std.txt? If so, I believe you

750. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 19:28:27 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <vXWNb.82088$na.43650@attbi_s04>
Source record: 101722

All of the 'Screen Rooms' [>120 db isolation into the GHz region] I've installed, used or managed have an instrumentation panel with various styles of feedthrough connectors. If your 'hard environment' is in fact an intentional shielded enclosure [AKA Screen Room] I would use a 100% solid shielded coax into the instrumentation panel then connect to an external antenna.

751. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 19:29:42 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <GYWNb.82093$na.43896@attbi_s04>
Source record: 101723

Cecil, are you discussing 'pea soup'?

Cecil Moore wrote:

> Art Unwin KB9MZ wrote:
>
>> Piddle means to mess around with things, ...
>
>
> My unabridged dictionary says it has a second meaning.
> There are many piddling contests on r.r.a.a :-)
> --
> 73, Cecil, W5DXP
>

752. Re: Insulating Properties of sked 40 pvc

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 19:49:20 UTC
From: dplatt@radagast.org
Message-ID: <100gg20d100hn1c@corp.supernews.com>
Source record: 101724

>Finally trying to get on from my apartment. Going to use long wire
>(stealth) and tuner. Will be running max of 100 watts, digital about
>30 watts. Thinking of using small sked 40 pipe to snake through a
>window (metal) with an outside brick corner. Just concerned with the
>wall thickness of the pipe.
>
>Thanks
>w2bdp@comcast.net

http://www.harvel.com/PVCCPVCduct.html has a table of physical and
electrical characteristics for their PVC and CPVC ducting. PVC duct
is listed as having a dielectric strength of 1413 volts per mil.

I don't think you're going to have a problem with regard to
insulation. I'd suggest keeping the PVC-with-wire-inside several
inches away from the metal, though, if possible.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

753. Re: ON4SKY website updates

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 19:49:37 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <4008405b$1_1@news.vo.lu>
Source record: 101725
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

"MD" <ve3tmt@rac.ca> wrote in message
news:LrBNb.4218$c1.680313@news20.bellglobal.com...
>
> "Thierry" <To answer me in private use
> http://www.astrosurf.com/lombry/post.htm> wrote in message
> news:40045e9d$1_2@news.vo.lu...
> > Hi OM,
> >
> > For the novices, and mayube the OT, here are some pages updated on my
> > website about antennas:
> > http://www.astrosurf.com/lombry/menu-qsl.htm
>
>
> I especially liked the section titled "How to Become an Amateur Radio"

Hi,

Indeed, many readers, OM or SWL have much appreciated this "introduction" to
ham radio, mainly radio clubs, and some people wanted a printed version too.
My objective is thus reached ;-)

Up to now this section (amateur radio) is the one that I update the most,
several pages each day.

73's
Thierry
ON4SKY

> I guess if I could become an amateur radio I would want to be the FT1000MP
> or the TS950SDX.
> I guess when I was younger I wanted to be an HW-8,
>
>

754. About grounding and coupling antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 20:01:42 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <40084330$1_2@news.vo.lu>
Source record: 101726

I read in the ARRL Antenna Book (rel. 1980) that the mesh constituting the ground screen has to be cut at 1/2-lamda (so displaying a radius of 20m to work on 7 MHz) to effectively establish the height of the antenna instead of the actual earth beneath the antenna.

I am not agree with the sentence... but if I am wrong, can someone explain me were my objection is false...

IMHO, this mesh buried in the ground has not to be at all in resonance to work properly as our objective is to make the ground as conductive as possible for RF signals. So far, when you work with a vertical cut at 1/4l standing directly over a metallic plate (your car hardtop or even using a base like the MFJ-1904 RF ground-coupled base) you do not worry to know if this surface is in resonance or not. As states Bencher, the manufacturer of Butternut antennas, "for mobile operations, according to the counterpoise principle, the metal body of the vehicle provides the capacitive coupling to the earth itself". MFJ Enterprises confirms also that his "ground-coupled portable antenna base, a 2x2 foot stainless steel square, provides an effective RF ground[...]". The same principle applies operating from a boat at sea where you do not expect that the "length" of the underneath open-sea surface is at resonance with your antenna... but rather that it constitutes a perfect conductive "ground", without losses. This "ground screen" plays in fact the role of an electrical mirror, not the one of the node of a string at which standing waves reflect back and radiate !

It seems that in fact many people confuse the ground with the antenna itself, and grouding with coupling. To be resonant, a vertical must be cut at 1/4-lambda and will use its mirror-image to reconstitute its electrical "missing-half". It will display an omnidirectional pattern in the horizontal plane (the current or the radiation pattern increasing from the top to the ground connection, the RF voltage being the highest on top, at the open end of the vertical). This pattern in sine curve has to reflect in the ground, whatever its horizontal extent, to display the same radiation pattern as a 1/2-lambda vertical in free space. But in shortened vertical system for example, the electric equivalent circuit presents much ground losses. It must thus be balanced by a system offering to the antenna a low capacitance to the earth while keeping the capacitance to the radials. This RF ground coupling is got either in installing at ground level more radials around the antenna base or raising the antenna and its radials above ground. On the lower bands on the contrary this is achieved in using loading coils for matching impedances. Therefore, in the first case, I shouldn't be surprised if some hams tell mz that they buried hundreds of cans in their backyard just to give to their antenna an earth more conductive.

On the other hand, the extent of this artificial ground is, on the contrary, very important when you will emit as the distance up to 10-lambda around your vertical influences much the efficiency of its angles of takeoff. This both aspects are two thing completely different.

Thanks for your explanations (if am wrong).

Thierry LOMBRY

ON4SKY

http://www.astrosurf.com/lombry/menu-qsl.htm

755. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 20:18:18 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <eGXNb.80789$8H.116996@attbi_s03>
Source record: 101727

Gene I suspect your Google has yet to be updated
but if not look up Tom's responses to me just for this month. As for Brian I did not trash him ! I think he said at the end it was impossible ! I suspect you are a new person on this newsgroup so I suppose one has to accept such statements and not take to much notice of such bland conclusions.......Now do you have anything to contribute?
Regards
Art

"Gene Fuller" <W4SZzzzzz@att.net> wrote in message news:GDWNb.49463$6y6.1018610@bgtnsc05-news.ops.worldnet.att.net...
> Art,
>
> You just received two serious and legitimate responses from Tom and Brian. You
> proceeded to trash each of them for their contributions.
>
> How do you expect to get useful input if you are not willing to accept anything
> that does not agree with your preconceived notions?
>
> YOU are the one with the loaded pea shooter.
>
> Shame on you!
>
> 73,
> Gene
> W4SZ
>
> Art Unwin KB9MZ wrote:
> > Hmmmm
> > They said that the idea of break dancing was an impossibility but they have
> > classes for same in East St Louis Students are not allowed to graduate
> > until thay exhibit the ability of removing a hub cap off of a moving vehicle
> > !
> > They probably have the same class in The Goebals
> > Regards
> > Art
>

756. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 20:23:01 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <FKXNb.81281$xy6.138769@attbi_s02>
Source record: 101728

Gene,
Brian is a fellow Brit why would I trash a fellow 'G'
Come to think of it why are you trashing me when you contributed nothing ?
Just try to get along and you are home free
Art

"Gene Fuller" <W4SZzzzzz@att.net> wrote in message
news:GDWNb.49463$6y6.1018610@bgtnsc05-news.ops.worldnet.att.net...
> Art,
>
> You just received two serious and legitimate responses from Tom and Brian.
You
> proceeded to trash each of them for their contributions.
>
> How do you expect to get useful input if you are not willing to accept
anything
> that does not agree with your preconceived notions?
>
> YOU are the one with the loaded pea shooter.
>
> Shame on you!
>
> 73,
> Gene
> W4SZ
>
> Art Unwin KB9MZ wrote:
> > Hmmmm
> > They said that the idea of break dancing was an impossibility but they
have
> > classes for same in East St Louis Students are not allowed to graduate
> > until thay exhibit the ability of removing a hub cap off of a moving
vehicle
> > !
> > They probably have the same class in The Goebals
> > Regards
> > Art
>

757. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 20:49:29 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <t7YNb.23142$VS4.700704@bgtnsc04-news.ops.worldnet.att.net>
Source record: 101729

Cecil,

I am not Tom, but I will respond anyhow.

It is so hard to keep up with you. This entire thread started a few days ago with a debate between you and Roy. You chastised Roy for considering the net current instead of the individual components. Now you have switched back to talking about net currents resulting from the addition of individual phasor currents.

Which one do you want to talk about?

It is unlikely that anyone reading this newsgroup is confused regarding the back and forth nature of the current on a thin wire. To insinuate such is merely a cheap shot that appears intended to intimidate. (Go ahead, take your best shot.) 8-)

The concept of phasors is a common and useful tool for visualization and some elementary numerical solutions. The simple standing wave analysis currently under discussion and debate is certainly an appropriate subject for phasor treatment. However, once outside of the realm of ideal one-dimensional systems the use of phasors gets much more complicated. The use of conventional mathematics for such problems is pretty standard.

The typical equation describing a standing wave is:

I = A * sin (kx) sin (wt)

The spatial phase of this equation is "kx", while the temporal phase is "wt". At no time do these phases suddenly reverse direction. The resulting value for I ranges through positive and negative values, and again it is unlikely that anyone is confused.

If you choose to call the switch from current flow in the positive direction to the negative direction a 180 degree phase shift, so be it. I prefer to keep the phase in its place and let the sine function do its thing to reverse the value of the equation.

73,
Gene
W4SZ

Cecil Moore wrote:

> Tdonaly wrote:
>
>> (P.S. Art, I hope you don't equate disagreement with ridicule. I
>> reserve all my

>> ridicule for Cecil since he can take it.)
>
>
> >> ....
>
> Tom, I notice you have not posted your calculations for
> the phase angles of those superposed phasors I presented
> yesterday. Did you come up with any phase angle other
> than zero and 180 degrees? Do you understand why Kraus'
> phase graph for standing wave current contains only two
> possible values of phase?
> --
> 73, Cecil, W5DXP
>

758. Re: Good HF Antenna and Location on Semi?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 21:10:54 UTC
From: KA9CAR <ka9car@a_r_r_l_.net>
Message-ID: <bu9k0v$31b8$1@news1.tribune.com>
Source record: 101733

I talked with, (or saw the website of) a road driver that had mounted a
series of hustler
resonators on a bar that ran across the cab roof behind the wind deflector.
It looked
like a passenger car roof rack, with these resonators mounted to it on short
masts.
As they were behind the wind fairing (?) they were protected from wind and
the
truck did not look like a porcupine.

It ended up below the top of the trailer, but it was working.

I have also worked a truck that had a wire stretched from the front to back
of the
trailer and a foot or two off of the trailer roof.

All in all Id say one of the screwdriver types securley mounted sounds like
a better
arrangement.

KA9CAR

"Mikey" <ki6pr@arrl.net> wrote in message
news:4006a44b_1@newsfeed.slurp.net...
> Jeff, look at the Hi-Q antenna - they are more heavily-built, and are
> gaining a lot of popularity with local drivers. Believe it or not, a lot
of
> them are mirror-mounting those monsters...
>
> 73,
> Mike KI6PR
> El Rancho R.F., CA
>
> "Jeff" wrote
> > I've been told that Mounting an antenna between cab and trailor is going
> to
> > cause reflectivity problems and more than likely will harm SWR and wont
> get
> > out very good . anyone have any ideas for a truck driver needing a good
> > location for HF bands?
> >
> > Maybe the BB3 so no worries as to needing a tuner....but where to put
the
> > darn thing hehe
> >
> > Any info would be appreciated

> >
> > Jeff (KB7GZE)
> >
> >
>
>

759. Re: ON4SKY website updates

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 21:12:23 UTC
From: MD <ve3tmt@rac.ca>
Message-ID: <XsYNb.6909$c1.999420@news20.bellglobal.com>
Source record: 101736
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

> Hi,
>
> Indeed, many readers, OM or SWL have much appreciated this "introduction"
to
> ham radio, mainly radio clubs, and some people wanted a printed version
too.
> My objective is thus reached ;-)
>
> Up to now this section (amateur radio) is the one that I update the most,
> several pages each day.
>
> 73's
> Thierry
> ON4SKY

Thierry,

You do have an excellent website that offers a wealth of information for hams and ham wannabees alike. I hope I did not offend you with comment. Keep up the good work.

73,
Max

760. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 21:14:05 UTC
From: tdonaly@aol.com
Message-ID: <20040116161405.26379.00000111@mb-m07.aol.com>
Source record: 101730

Art wrote,
> Don't make up a false augument, nowhere do I say that parts of a dipole
>does not radiate, soon you will have half the neibourhood up in arms
>regarding something I didn't say. As for your parlying the term 'false' so
>liberaly it is clear that you were sleeping during class, but then even
>those who know little of radiation can have an oponion.
>So what is your vision of the future with respect to antenna and are you
>doing anything to make that vision come true i.e. walking the walk.or are
>your jollies gained by shooting at those such as Cecil that does have the
>required knoweledge? On top of all that read carefully regarding'
>efficiency' since I have qualified it as ' per unit length'
>Best regards
>Art Unwin
>

Actually, Art, I have come up with a small antenna that radiates well enough,

although I don't see any point in making anything out of it since I can't get
it
to do anything impossible. (A full-size antenna would work better.)
I apologize if I misunderstood you. You might pause to consider, however,
that a half-wave dipole at the correct height is quite efficient, anyway, and
improving it from, say, 98% to 99% won't gain you much advantage,
even if your idea has merit.
73,
Tom Donaly, KA6RUH

761. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 21:15:21 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <JvYNb.50081$6y6.1027986@bgtnsc05-news.ops.worldnet.att.net>
Source record: 101731

Art,

OK, here is my contribution.

Short antennas are quite thoroughly understood. Most of the analytical treatments of antenna theory I have seen start with short dipoles and then expand to longer dipoles and other types of antennas.

There have been any number of segmented antennas proposed and built, including multiple trap antennas, multiple capacitor antennas, curtain antennas, fractal antennas, and so on. Do you have some new idea that has not already been tried?

Short antennas radiate just fine, IF one can feed the power into the antenna and avoid losing too much to non-radiative losses.

It has already been pointed out that all parts of a dipole antenna contribute to the radiation. Sure, it is possible to shorten the antenna and even maintain the same total radiated power. However, the pattern will change and the antenna may become more difficult to feed.

It is not clear what issue you find with Yagi antennas. Keep in mind that it is unlikely that one can achieve high directionality and gain from an antenna with a size that is a tiny fraction of the wavelength. This is the case for radio waves, optics, or any other wave phenomena. The reason people choose to use large Yagi antennas is gain, not efficiency or cost.

Soooo, the bottom line is that there are large antennas, and there are small antennas. Different applications favor one type over others.

Do you expect to develop some new antenna design concepts or even some new science? If the former, then the field is well-plowed, even if it is theoretically still infinite. If the latter, well, good luck.

73,
Gene
W4SZ

Art Unwin KB9MZ wrote:

> Gene,
> Brian is a fellow Brit why would I trash a fellow 'G'
> Come to think of it why are you trashing me when you contributed nothing ?
> Just try to get along and you are home free
> Art
>

762. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 21:18:06 UTC
From: tdonaly@aol.com
Message-ID: <20040116161806.26379.00000112@mb-m07.aol.com>
Source record: 101732

Art wrote,
>
>Gene I suspect your Google has yet to be updated
>but if not look up Tom's responses to me just for this month.
>

What responses? I don't normally respond to your posts, Art.
73,
Tom Donaly, KA6RUH

763. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 21:22:30 UTC
From: tdonaly@aol.com
Message-ID: <20040116162230.26379.00000113@mb-m07.aol.com>
Source record: 101734

Cecil wrote,
>
>Tdonaly wrote:
>> (P.S. Art, I hope you don't equate disagreement with ridicule. I reserve
>all my
>> ridicule for Cecil since he can take it.)
>
> >> ....
>
>Tom, I notice you have not posted your calculations for
>the phase angles of those superposed phasors I presented
>yesterday. Did you come up with any phase angle other
>than zero and 180 degrees? Do you understand why Kraus'
>phase graph for standing wave current contains only two
>possible values of phase?
>--
>73, Cecil, W5DXP
>
>
>

What! And get into a 500 post exchange with you? You must think I'm
mad.
73,
Tom Donaly, KA6RUH

764. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 21:25:51 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <bu9kst$dq63s$1@ID-175933.news.uni-berlin.de>
Source record: 101735

RE: Pastes below the line...

Tam,

In most cases, there is plenty of ERP radiated toward the ground within 5 miles of a TV tower to generate a high (even TOO high) field strength. The example below is a screen dump of an old DOS program I wrote, and shows that a typical Channel 11 transmit antenna at 1600' above level terrain and the usual max ERP will radiate over 30kW toward a point on the ground 5 miles away. Probably everyone would agree that 30kW of radiated power over a 5 mile path is more than adequate for most TV sets <g>.

Elevation pattern nulls do occur in these antennas, though. For the antenna assumed below, the 1st null is directed toward the ground 3.6 miles away from the tower. The 2nd null falls at 1.8 miles, and the rest between there and the tower base. Viewers located in and very near these nulls can receive a poor picture (ghosty, etc).

But a second xmt antenna at 50' on the tower radiating simultaneously with the main antenna would not be sanctioned (authorised) by the FCC, because of the interference it will cause to the radiation of the main antenna. That's not to say it never happened, I guess.

RF

Visit http://rfry.org for FM broadcast RF system papers.

* ERP / FIELD STRENGTH vs. DISTANCE *

Antenna R/C (HAAT, ft.): ? 1600 (Radio horizon = 56.57 miles.)
Distance from Tower (miles): ? 5
Number of bays: ? 12
Bay Spacing, wavelengths (decimal): ? 1
Element function:
Best Case (12.6% R.F. at -90 degreees)
Max ERP in kW: ? 316
- - - - - - - -
RESULTS:

For 12 Bay Antenna at 1600 ft. HAAT and 316 kW ERP max:

Distance Dep. Angle ERP dB from 50,50 Field,
(mi.) (deg.) (kW) Max. ERP mV/m
-------- -------- ------ --------
----
5 3.50 33.67 -9.73 >100dBuV/m

"Tarmo Tammaru" wrote:
>
> "Richard Fry" <rfry@adams.net> wrote in message
> news:bu665d$e0066$1@ID-175933.news.uni-berlin.de...
> > Broadcasters use arrays of antenna elements aligned on a vertical axis
to
> > produce maximum gain in, and near the horizontal plane. Typically each
of
> > these elements is omnidirectional in the azimuth plane, arrayed at about
1
> > lambda vertical intervals, and driven with equal power and phase.
> >
> > A slide show and tech papers on these topics are available following the
> > "Papers" button at http://rfry.org.
> >
> > R. Fry
> >
> This must work quite well. I used to live about 5 miles from a channel 11
> transmitter whose antennas were on a 1600 foot tower. To serve people who
> lived close, they tapped off some of the RF to a clunker antenna at about
50
> feet.

765. Re: Omnidirectional Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 22:05:17 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <bu9n6s$f3ngj$1@ID-175933.news.uni-berlin.de>
Source record: 101737

"Richard Fry" wrote:
> Elevation pattern nulls do occur in these antennas, though.

I should add that it is possible, and a common practice in specifying TV & FM broadcast transmitting antennas to "fill" these nulls in their elevation patterns (i.e., to prevent them from dropping to a theoretical zero ERP).

RF

766. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 22:20:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4008645c_7@corp.newsgroups.com>
Source record: 101738

Gene Fuller wrote:
> It is so hard to keep up with you. This entire thread started a few days
> ago with a debate between you and Roy. You chastised Roy for considering
> the net current instead of the individual components. Now you have
> switched back to talking about net currents resulting from the addition
> of individual phasor currents.
>
> Which one do you want to talk about?

Nice try, Gene. What got Roy into trouble is forgetting that the net current consists of two components. One can choose to talk about either the components or the net as long as one realizes that the net is the sum of the components. Roy has said, in so many words, that I am stupid to worry about the components when all I need to worry about is the net. It's obvious that Kraus worries about the components and, therefore, I have good reason for such. Great insight is afforded to he who considers the primary components of the sum instead of ignoring them.

> At no time do these phases suddenly reverse direction.

Aha, so you disagree with Kraus and apparently don't understand the thin wire analysis of standing waves in his book.

> If you choose to call the switch from current flow in the positive
> direction to the negative direction a 180 degree phase shift, so be it.

A DDS chip can generate a sine wave. Are you telling me that +0.001 volts out of a DDS chip is not 180 degrees different from a -0.001 volts out of a DDS chip? At exactly what voltage level does it have to get to to call it a 180 degree phase shift? If all you see is a step from +0.001 volts to -0.001 volts, does the information that you don't know dictate whether is is a 180 degree phase shift or some other phase shift? If so, you are in deep doo-doo, my friend, and you cannot trust any measurements because there are always unknowns.

This situation of math models dictating reality (instead of vice-versa) is worse than I thought. In reality, there is no imaginary current when the real current is zero. All current in the real-world is real. I suppose that all current in the imaginary world is imaginary but that's not the world I live in. If the real current is zero then, for people living in the real world, the current is zero - there ain't no more. In reality, God doesn't control everything about the universe according to his whim. HE allows HIS physical laws to run the universe. If a 180 degree reversal in the direction of flow of current is not a 180 degree reverse in reality, exactly what is it? If you have a square wave with one amp as the maximum, and -0.1 amp as the minimum, is that not a 180 degree phase shift? If you have a square wave with 0.00001

amp as the maximum and 0.00001 amp as the minimum is that not a 180 degree phase shift? Is the quantum shift from +0.0000...01 volts to -0.0000...01 volts not a shift of 180 degrees?

Gene, I hate to burst your (sacred cow) bubble, but the imaginary part of the current doesn't actually exist in my universe. If it exists in yours, I suggest you subscribe to r.r.a.a in that universe, wherever it might be.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

767. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 22:25:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40086598_7@corp.newsgroups.com>
Source record: 101739

Tdonaly wrote:

> Cecil wrote,
>>Tom, I notice you have not posted your calculations for
>>the phase angles of those superposed phasors I presented
>>yesterday. Did you come up with any phase angle other
>>than zero and 180 degrees? Do you understand why Kraus'
>>phase graph for standing wave current contains only two
>>possible values of phase?

> What! And get into a 500 post exchange with you? You must think I'm
> mad.

Heh, heh, it won't be a 500 post exchange if you got the same answer
as Kraus and I did (50 years ago). :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

768. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-16 22:42:05 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <1NZNb.23429$VS4.710055@bgtnsc04-news.ops.worldnet.att.net>
Source record: 101740

Cecil,

What in the world are you blathering on about?

(That's a rhetorical question. No answer needed.)

I stated my position, and I have nothing more to add. Feel free to continue to amuse yourself.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> It is so hard to keep up with you. This entire thread started a few
>> days ago with a debate between you and Roy. You chastised Roy for
>> considering the net current instead of the individual components. Now
>> you have switched back to talking about net currents resulting from
>> the addition of individual phasor currents.
>>
>> Which one do you want to talk about?
>
>
> Nice try, Gene. What got Roy into trouble is forgetting that the net
> current consists of two components. One can choose to talk about either
> the components or the net as long as one realizes that the net is the
> sum of the components. Roy has said, in so many words, that I am stupid
> to worry about the components when all I need to worry about is the net.
> It's obvious that Kraus worries about the components and, therefore, I
> have good reason for such. Great insight is afforded to he who considers
> the primary components of the sum instead of ignoring them.
>
>> At no time do these phases suddenly reverse direction.
>
>
> Aha, so you disagree with Kraus and apparently don't understand the
> thin wire analysis of standing waves in his book.
>
>> If you choose to call the switch from current flow in the positive
>> direction to the negative direction a 180 degree phase shift, so be it.
>
>
> A DDS chip can generate a sine wave. Are you telling me that +0.001 volts
> out of a DDS chip is not 180 degrees different from a -0.001 volts out of

> a DDS chip? At exactly what voltage level does it have to get to to call
> it a 180 degree phase shift? If all you see is a step from +0.001 volts
> to -0.001 volts, does the information that you don't know dictate whether
> is is a 180 degree phase shift or some other phase shift? If so, you are
> in deep doo-doo, my friend, and you cannot trust any measurements because
> there are always unknowns.
>
> This situation of math models dictating reality (instead of vice-versa) is
> worse than I thought. In reality, there is no imaginary current when the
> real current is zero. All current in the real-world is real. I suppose that
> all current in the imaginary world is imaginary but that's not the world I
> live in. If the real current is zero then, for people living in the real
> world,
> the current is zero - there ain't no more. In reality, God doesn't control
> everything about the universe according to his whim. HE allows HIS physical
> laws to run the universe. If a 180 degree reversal in the direction of flow
> of current is not a 180 degree reverse in reality, exactly what is it?
> If you
> have a square wave with one amp as the maximum, and -0.1 amp as the
> minimum,
> is that not a 180 degree phase shift? If you have a square wave with
> 0.00001
> amp as the maximum and 0.00001 amp as the minimum is that not a 180 degree
> phase shift? Is the quantum shift from +0.0000...01 volts to -0.0000...01
> volts not a shift of 180 degrees?
>
> Gene, I hate to burst your (sacred cow) bubble, but the imaginary part of
> the current doesn't actually exist in my universe. If it exists in yours,
> I suggest you subscribe to r.r.a.a in that universe, wherever it might be.

769. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 00:00:10 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40087B0A.D52EA0A7@cwis.net>
Source record: 101741

Art said, in part;

"It is well known that the ends of a 1/2 wave dipole can be
lopped off without any noticable difference which can be seen by
the area lost under the normal current flow diagrams, so
efficiency can immediatly improved."

You are right, you didn't say that the ends of a dipole do
not
radiate. But, by the above quote, you have implied just the
opposite.
'Doc

PS - Peashooter is back on the rack again.

770. Re: Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 00:47:11 UTC
From: jgboyles@aol.com
Message-ID: <20040116194711.12710.00000160@mb-m29.aol.com>
Source record: 101742

>The coax choke does not perform an Z transformation.

Hi Richard,
I was wondering about that when I tried to answer Ken's question. The choke he described was 13 turns of RG-58 on about a 5" form. That is about 17' of 50 ohm coax. That will transform the heck out of impedances other than 50 ohms resistive.

This implies the coax choke does perform a Z transformation. I think a true 1:1 balun can best be realized with a W2DU type with a 100 or so ferrite beads on about a foot of coax. What do you think?
73 Gary N4AST

771. Re: About grounding and coupling antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 00:55:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bua15g$q5n$1@hercules.btinternet.com>
Source record: 101743

A buried radial wire behaves as a very lossy transmission line.

The soil surrounding the wire has a very low insulation resistance.

Because of soil permittivity and water content, the line capacitance is also much higher than the free space value.

The velocity of propagation along a buried radial wire can be as small as 1/12 of the free space value.

This makes nonsence of cutting radial wires to particular resonant lengths.

Also, due to the high loss in the soil, the attenuation of the current along a buried radial wire is very high. There is little point in having a radial wire longer than about 8 dB because its input impedance, as a transmission line, ceases to decrease for longer lengths. The input impedance simply converges on the line impedance Zo.

For average soil characteristics, at the lower HF frequencies the optimum length of a buried radial is of the order of 1/10th of the free-space wavelength. But it varies widely.

Hence the old adage - if you have any wire to spare then increase the number of radials rather than increase their length. But in any case forget all about the magic number of 120. Stop at 8, 16 or 32, or when the strength of RECEIVED signals stops increasing.

For a crude estimate of the performance of a single buried radial wire, download program RADIOETH.

For the effect of multiple rods, plates and radials, download program EARTHRES.

For the performance of an inverted-L antenna above a system of ground radials, download program ENDFEED.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

772. Re: About grounding and coupling antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 01:31:28 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <40088f9b$0$310$ba620e4c@news.skynet.be>
Source record: 101744

Hi Thierry and Reg,

I don't completely agree with the suggestion of Reg to limit the number of radials to 8, 16 or 32 because the more you have, the smaller the loss. This will increase the efficiency despite the SWR could also increase at the same time. Have a look to Walter Maxwell W2DU "Reflections".

But it's true that the length must not be strictly equal to a 1/4 wl if the radial are burried or at ground level. If you elevate the antenna so that the radials are in the "air", then you can also vary the angle, passing from horizontal to vertical (downwards). In this case the number of radials might decrease. Notice that when the radials are vertical, then you have a 1/2 wl dipole and the length of the "single radial" must be 1/4 WL.

73 de ON5MJ - Jacques.

773. Re: Choke enough?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 02:15:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40089b74_7@corp.newsgroups.com>
Source record: 101745

JGBOYLES wrote:
>>The coax choke does not perform an Z transformation.
>
> I was wondering about that when I tried to answer Ken's question. The choke
> he described was 13 turns of RG-58 on about a 5" form. That is about 17' of 50
> ohm coax. That will transform the heck out of impedances other than 50 ohms
> resistive.

Yep, on 30m that's just about a 1/4WL series section transformer.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

774. Re: About grounding and coupling antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 02:40:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bua7a1mjr1@sparta.btinternet.com>
Source record: 101746

If by increasing the number of radials from 10 to 20 the improvement in signal strength is only 1/10th of an S-unit then it is a waste of time and copper in doing so.

Reg, G4FGQ

775. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 03:05:17 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <ND1Ob.74003$nt4.99433@attbi_s51>
Source record: 101747

"Gene Fuller" <W4SZzzzzz@att.net> wrote in message
news:JvYNb.50081$6y6.1027986@bgtnsc05-news.ops.worldnet.att.net...
> Art,
>
> OK, here is my contribution.
>
> Short antennas are quite thoroughly understood.
Yes but all knoweledge obtained has not been utilised
or consideredin this area even tho the use of this knoweledge is considered
beforehand as useless.

Most of the analytical
> treatments of antenna theory I have seen start with short dipoles and then
> expand to longer dipoles and other types of antennas.
>
> There have been any number of segmented antennas proposed and built,
including
> multiple trap antennas, multiple capacitor antennas, curtain antennas,
fractal
> antennas, and so on. Do you have some new idea that has not already been
tried?
Yes, you may well want to look at some old antenna patents of mine, I wrote
them up myself in a way I thought the patent office wanted it and then they
changed the hell out of it but I think the drawings I made should be enough
for anybody to follow. Some locals built them from the same drawings.
They are not considered valid by the gurus associated with this group.

>
> Short antennas radiate just fine, IF one can feed the power into the
antenna and
> avoid losing too much to non-radiative losses.
Exactly, a receiving antenna that many use can not be transmitted on where
as mine is a perfect match that are as good as say a beverage in terms of
gain yet are only a smidgeon of it's length.
>
> It has already been pointed out that all parts of a dipole antenna
contribute to
> the radiation. Sure, it is possible to shorten the antenna and even
maintain the
> same total radiated power.
Good thinking
However, the pattern will change and the antenna may
> become more difficult to feed. But what if the match is a perfect one?
>
> It is not clear what issue you find with Yagi antennas. Keep in mind that

it is
> unlikely that one can achieve high directionality and gain from an antenna
with
> a size that is a tiny fraction of the wavelength.

Unlikely but I have done it!

This is the case for radio
> waves, optics, or any other wave phenomena. The reason people choose to
use
> large Yagi antennas is gain, not efficiency or cost.

Well my last yagi (20 metres)I built had a boom length of 80 feet if I remember wrightly with 13 elements two of which were reflectors. After that antenna I decided to devote time to small antennas of a type that has not been written up before that are mathematically proven, duplicated by a pro computor program and of course used by me on various frequencies albiet not very often..
Some of the antennas broke over the years but were easily duplicated.
>
> Soooo, the bottom line is that there are large antennas, and there are
small
> antennas. Different applications favor one type over others.
>
> Do you expect to develop some new antenna design concepts or even some new
> science? If the former, then the field is well-plowed, even if it is
> theoretically still infinite. If the latter, well, good luck.

Thank you but one never gets to the end..It is also hard to believe the new when over the years so many people have made false claims which makes it relatively safe to call all new claims as bogus and the claiment is a lier. When I had to fill out papers to come to this country I was asked what my rank was in the boy scouts,had I eve
committed adultery and several other penetrating questions. I would suggest it would be rather odd if a lying pattern started only after I arrived in this country and after I retired from G.E. but I suppose it could happen.
Art
>
> 73,
> Gene
> W4SZ
>
>
> Art Unwin KB9MZ wrote:
>
> > Gene,
> > Brian is a fellow Brit why would I trash a fellow 'G'
> > Come to think of it why are you trashing me when you contributed nothing
?
> > Just try to get along and you are home free
> > Art

> >
>

776. Re: Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 03:28:20 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <buaa4k$41u9$1@news3.infoave.net>
Source record: 101749

Yes, you only need a directional antenna. There are a myriad of solutions
available.

First FM is a modulation method, not a set of frequencies.

What frequency are you interested in? A little more data would enable the
newsgroup members to help you.

--
<--
Monday January 19th is Robert E. Lees Birthday.
http://gilbertnews.net
"me" <herber@ccser.com> wrote in message
news:IM1Ob.132$p07.4884@eagle.america.net...
> I am interested to know if there is a way to transmitt FM radio
frequencies
> in a directional path. I need to transmit from 1/8 to 1/4 mile in a very
> direct narrow pattern. Does anyone know if this is possible.
>
>

777. Re: Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 03:38:25 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4008aeda_2@corp.newsgroups.com>
Source record: 101750

me wrote:
> I am interested to know if there is a way to transmitt FM radio frequencies
> in a directional path. I need to transmit from 1/8 to 1/4 mile in a very
> direct narrow pattern. Does anyone know if this is possible.

What frequency? Hams are allowed to use FM on most ham
bands from 29 MHz to hundreds of GHz.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

778. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 05:36:03 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4008C9C3.AF3066CF@cwis.net>
Source record: 101751

"I would suggest
it would be rather odd if a lying pattern started only after I
arrived in
this country and after I retired from G.E. but I suppose it
could happen."

... No, I won't do it. It would be just too easy...
'Doc

779. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 08:42:24 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <06th00h0ok8ma7reqc1jho2l9v8mir179j@4ax.com>
Source record: 101752

On Fri, 16 Jan 2004 20:36:37 +1100, Bob Bob <bcnntp@optusnet.com.au>
wrote:

>A passive repeater? Basically an antenna both inside and outside the
>room joined by a piece of coax.. Yes it works. I had it working with my
>2m HT inside the home unit with a yagi sitting at the end of the
>hallway, coax connected to the 5/8 on the roof of the house. (Only used
>the yagi cause it was handy) Maybe 2-3 S points better at the time.
>(best guess)

My shop is metal lined with the only openings being two small windows
besides the doors which are metal.

I have never been able to get a passive set up to work in there and an
HT is only marginal out in the yard. I figured the big antenna on the
roof with a short run of hard line would do the trick, but no joy.

I ended up using cross band repeat on 440 to the rig in the house.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

<snip>

780. Newbie - Studying for Tech & planning station setup - Vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 12:18:11 UTC
From: Volker Kerkhoff <volker@kadira-net.com>
Message-ID: <bub8up$dq4$1@gateway.pa.homeip.net>
Source record: 101753

Hello, ladies and gentlemen,

Allow me (Volker) to introduce myself. After a lengty period of SWL, DX and Utility (including amateur bands) listening I have finally made up my mind to get a Beginner and Tech license in Spain, where I live. Spanish ham legislation is quite different from the US (or rest of Europe, for what that may count) in many ways.

Licenses are class B (>52 MHz), class C (Limited HF, does NOT include > 50 MHz) and class A (General, all HF and U/V/SHF). Both C and A require CW at 8, respectively 12 WPM.

You DON'T get your callsign with your ticket, but only after you passed the exam you're allowed to file an application to operate a Ham station. The Application has to include a complete listing of all the equipment operated in the station, including serial numbers (this, as a matter of fact, leaves you at their mercy, because you need to go out, buy your rig to give them the serial numbers and file the bills with the application, but they may reject your application, altought this does not happen often) and a plan of all the radiating elements and their supports you plan to install, including calculations for the wind resistance, snow load (yeah, right), EIRP / ERP data. After you applied, after a couple of months you will be notified that your application has been accepted. Then you've three months to complete the installation of the equipment, and after you notify the telecomm agency that you have carried out the installation and provided proof ot 3rd-party liability insurance for the antennas, and they eventually inspected your installation and equipment you get your callsign.

OTOH, the installation of ham and CB antennas is well covered by the spanish law. Not your landlord, not your neighbors, not even town building authorities may forbid the installation of ham antennas, unless technical reasons or other compelling circumstances speak against it. Saying "we don't want a ham antenna on our roof" is NOT a compelling reason, even if supported by the majority of the owners / residents in an appartment house.

Now to what it comes... B License would give me the well known operating privileges on 80, 40, 15 and 10 Mts. Well, to "start on a budget" and since I will need to buy new rig (a used market is unexistant in Spain, most guys selling on Ebay will not ship here and not be able to provide an official bill) and your rig (unless full homebrew) REQUIRES a CE-Certificate here in Spain.

The pount is that our rooftop is only 19 x 15 Meters. Make the numbers for a half-wawe dipole for 80 Mts (or even 40) and it does not fit. I could maybe pull a half-wave for 40Mts diagonally across the roof, but I would then not be able to comply with the mandatory 3 Mts distance to the TV antenna.

So I looked into alternatives. The G5RV for 40-10 Mts would fit on either sides of the roof (Actually, and since they are rather cheap, I plan on installing two, one N-S and one E-W, Since I plan to work both Africa (southwards) and Europe (the Alps would be in a "blank" on my "E-W"-Dipole)

The point is that I'd be missing an antenna for 80 mts, a band that actually interest me more that 20 Mts and above, because I'l mostly be working at night. The idea was to put up a vertical, but I am a bit confused about the requirement for a ground. (Besides the fact that the whole building does not have a ground) I don't think the rooftop counts as adecuate radio ground for a vertical, right? If I take one with radials, especially for that band I'm in trouble with the 3 Mts from the TV antenna again, especially with the radials, or I have to put up a pole or turret providing at least 5 Mts vertical separation, which would be asides from expensive, because I'd need to built a foundation for it, provide additional suspension cords (not needed with the dipoles)

So, what are my options here? Anyone has an idea for a widely available commercial solution, for 80 Mts or multiband with limited space requirements? The only other option I've come across is the Watson Plus80-2, but it seems to perform a lot worse than the G5RV or most verticals.

Thanks, and best regards to all,

Volker

781. Re: About grounding and coupling antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 15:07:09 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <40094fa5_1@news.vo.lu>
Source record: 101754

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:bua7a1mjr1@sparta.btinternet.com...
> If by increasing the number of radials from 10 to 20 the improvement in
> signal strength is only 1/10th of an S-unit then it is a waste of time and
> copper in doing so.
> ---
> Reg, G4FGQ
>
>

Thanks for your replies that confirm what I stated in my page
http://www.astrosurf.com/lombry/qsl-radials.htm
So can we conclude that the assertion stated in the Antenna Book about the
Ground screen is false or at least subject to more comments ?
I have sent the question to "QST's doctor is in ? column". I hope that they
will answer dirtectly to me or via the magazine a next month.

73's
Thierry
ON4SKY

782. Re: Newbie - Studying for Tech & planning station setup - Vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 15:20:15 UTC
From: "M. J. Powell" <mike@DeLeTe.pickmere.demon.co.uk>
Message-ID: <m$RimTevKVCAFw9v@pickmere.demon.co.uk>
Source record: 101760

In message <bub8up$dq4$1@gateway.pa.homeip.net>, Volker Kerkhoff
<volker@kadira-net.com> writes
>Hello, ladies and gentlemen,
>
Hello.
>
>Licenses are class B (>52 MHz), class C (Limited HF, does NOT include >
>50 MHz) and class A (General, all HF and U/V/SHF). Both C and A require
>CW at 8, respectively 12 WPM.

Snip

>Now to what it comes... B License would give me the well known
>operating privileges on 80, 40, 15 and 10 Mts.

This contradicts what you said above: "Class B above 52 MHz"

Mike

783. Xium's "Spilateral antenna...any experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 15:36:15 UTC
From: Darrell Pennington <dctpenn@earthlink.net>
Message-ID: <PDcOb.12095$i4.869@newsread1.news.atl.earthlink.net>
Source record: 101755

Ran across ad in Popular Mechanics about Xium's spilateral antenna, XiumAir.
Has anyone tried this antenna, if so, what were your results? Some of you
techies may be able to tell me if it's a feasible technology or not? Their
website is www.goxium.com.
Thanks for any insights.
Darrell

784. Re: Xium's "Spilateral antenna...any experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 16:31:49 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnc0iorf.1p5b.bit-bucket@localhost.config.com>
Source record: 101756

On Sat, 17 Jan 2004 15:36:15 GMT, Darrell Pennington hath writ:
> Ran across ad in Popular Mechanics about Xium's spilateral antenna, XiumAir.
> Has anyone tried this antenna, if so, what were your results? Some of you
> techies may be able to tell me if it's a feasible technology or not? Their
> website is www.goxium.com.
> Thanks for any insights.
> Darrell

Learn to fish.
http://groups.google.com/groups?as_q=XiumAir

There are only three references (as of this date) in news. Two
opine that it's a piece of junk (to which I'm inclined to agree.)
One looks like a promo/teaser posting (and I am vaguely suspicious
of yours.)

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | config.com | DM68mn SK

785. Re: Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 16:46:16 UTC
From: richardharrison@webtv.net
Message-ID: <9552-400966D8-230@storefull-3258.bay.webtv.net>
Source record: 101757

"Me" wrote:
"I am interested to know if there is a way to transmit FM radio frequencies in a directtional path. I need to transmit from 1/8 to 1/4 mile in a very direct narrow pattern."

If these are 3-meter band (100 MHz) signals, a dish to confine these frequencies directly to a small beamwidth (20-degrees) is impracticably large (about 30 feet in diameter). Likewise, a Yagi to confine beamwidth to about 20-degrees is about 20 meters (66 feet) long.

The best way to reach 1/8 to 1/4 mile with a narrow pattern may be with a wire or cable of either electrical or optical type.

If 100 MHz is the information signal, it can be the modulation on a carrier frequency in the microwave range which can be directionally confined with reasonably sized antennas, or the signal can be modulated by digital or analog methods on an optical laser or led circuit which confines the beamwidth to a narrow beam.

Best regards, Richard Harrison, KB5WZI

786. Re: Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 16:55:38 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40081290_4@newsfeed.slurp.net>
Source record: 101758

Of course it's possible. It comes down to your application - what do you want to do with it? Your application will dictate frequency, power requirements, antenna syze/design, and even whether or not you really want FM...

- KI6PR

"me" wrote
> I am interested to know if there is a way to transmitt FM radio frequencies
> in a directional path. I need to transmit from 1/8 to 1/4 mile in a very
> direct narrow pattern. Does anyone know if this is possible.
>
>

787. Re: Insulating Properties of sked 40 pvc

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 16:59:48 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40081384$1_4@newsfeed.slurp.net>
Source record: 101759

Sched 40 PVC is fine and will work for what you want. Don't forget to stuff
the PVC after you've run your feedline through, to keep the critters out...

See you on the air.

73,
Mike KI6PR
El Rancho R.F., CA

"KenW" wrote
> Finally trying to get on from my apartment. Going to use long wire
> (stealth) and tuner. Will be running max of 100 watts, digital about
> 30 watts. Thinking of using small sked 40 pipe to snake through a
> window (metal) with an outside brick corner. Just concerned with the
> wall thickness of the pipe.
>
> Thanks
> w2bdp@comcast.net
> -- KenW

788. Re: Newbie - Studying for Tech & planning station setup - Vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 17:11:49 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4008165e_1@newsfeed.slurp.net>
Source record: 101761

Volker, good luck with the bureaucratic guantlet you're running.

The only commercially-available vertical(s) I'm aware of that would meet your described needs are the Butternut, and the GAP. Butternut can be used with either shortened radials, or none at al; you will of course, see reduced, but acceptable performance. The GAP vertical uses a set of "counterpoises", of a length shorther than for normal radials. They're both worth investigation.

73,
Mike KI6PR

"Volker Kerkhoff" wrote
> Now to what it comes... B License would give me the well known operating
> privileges on 80, 40, 15 and 10 Mts. Well, to "start on a budget" and
> since I will need to buy new rig (a used market is unexistant in Spain,
> most guys selling on Ebay will not ship here and not be able to provide
> an official bill) and your rig (unless full homebrew) REQUIRES a
> CE-Certificate here in Spain.
>
> The pount is that our rooftop is only 19 x 15 Meters. Make the numbers
> for a half-wawe dipole for 80 Mts (or even 40) and it does not fit. I
> could maybe pull a half-wave for 40Mts diagonally across the roof, but I
> would then not be able to comply with the mandatory 3 Mts distance to
> the TV antenna.
>
> So I looked into alternatives. The G5RV for 40-10 Mts would fit on
> either sides of the roof (Actually, and since they are rather cheap, I
> plan on installing two, one N-S and one E-W, Since I plan to work both
> Africa (southwards) and Europe (the Alps would be in a "blank" on my
> "E-W"-Dipole)
>
> The point is that I'd be missing an antenna for 80 mts, a band that
> actually interest me more that 20 Mts and above, because I'l mostly be
> working at night. The idea was to put up a vertical, but I am a bit
> confused about the requirement for a ground. (Besides the fact that the
> whole building does not have a ground) I don't think the rooftop counts
> as adecuate radio ground for a vertical, right? If I take one with
> radials, especially for that band I'm in trouble with the 3 Mts from the
> TV antenna again, especially with the radials, or I have to put up a
> pole or turret providing at least 5 Mts vertical separation, which would
> be asides from expensive, because I'd need to built a foundation for it,
> provide additional suspension cords (not needed with the dipoles)
>

> So, what are my options here? Anyone has an idea for a widely available
> commercial solution, for 80 Mts or multiband with limited space
> requirements? The only other option I've come across is the Watson
> Plus80-2, but it seems to perform a lot worse than the G5RV or most
> verticals.
>
> Thanks, and best regards to all,
>
> Volker
>

789. Re: Xium's "Spilateral antenna...any experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 17:48:11 UTC
From: Darrell Pennington <dctpenn@earthlink.net>
Message-ID: <vzeOb.12210$i4.4449@newsread1.news.atl.earthlink.net>
Source record: 101762

Thanks for the reply. I simply had not seen any data on it and was curious
(no promo postings here). The link you provided indicates that it is not
what it's cracked up to be.
DP
"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrnc0iorf.1p5b.bit-bucket@localhost.config.com...
> On Sat, 17 Jan 2004 15:36:15 GMT, Darrell Pennington hath writ:
> > Ran across ad in Popular Mechanics about Xium's spilateral antenna,
XiumAir.
> > Has anyone tried this antenna, if so, what were your results? Some of
you
> > techies may be able to tell me if it's a feasible technology or not?
Their
> > website is www.goxium.com.
> > Thanks for any insights.
> > Darrell
>
> Learn to fish.
> http://groups.google.com/groups?as_q=XiumAir
>
> There are only three references (as of this date) in news. Two
> opine that it's a piece of junk (to which I'm inclined to agree.)
> One looks like a promo/teaser posting (and I am vaguely suspicious
> of yours.)
>
> Jonesy
> --
> | Marvin L Jones | jonz | W3DHJ | OS/2
> | Gunnison, Colorado | @ | Jonesy | linux __
> | 7,703' -- 2,345m | config.com | DM68mn SK

790. Re: Mobile phone in hard environment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 18:47:11 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <4009832F.4070606@optusnet.com.au>
Source record: 101763

Hi Roger

I guess its a relative signal strength issue. I have never gone to the trouble to work out the efficiency of a passive setup but whichever way you look at it it will never work as well as a cable connected direct from and external aerial to the radio. Might even have a look at it this week if I get a chance.

How does that phrase go? YMMV!

Cheers Bob VK2YQA

> My shop is metal lined with the only openings being two small windows
> besides the doors which are metal.
>
> I have never been able to get a passive set up to work in there and an
> HT is only marginal out in the yard. I figured the big antenna on the
> roof with a short run of hard line would do the trick, but no joy.
>
> I ended up using cross band repeat on 440 to the rig in the house.
>
> Roger Halstead (K8RI & ARRL life member)
> (N833R, S# CD-2 Worlds oldest Debonair)
> www.rogerhalstead.com
>
>
> <snip>

791. Re: Newbie - Studying for Tech & planning station setup - Vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 19:35:45 UTC
From: Volker Kerkhoff <volker@kadira-net.com>
Message-ID: <buc32qsdo1@gateway.pa.homeip.net>
Source record: 101765

M. J. Powell wrote:
> In message <bub8up$dq4$1@gateway.pa.homeip.net>, Volker Kerkhoff
> <volker@kadira-net.com> writes
>> Now to what it comes... B License would give me the well known
>> operating privileges on 80, 40, 15 and 10 Mts.
>
> This contradicts what you said above: "Class B above 52 MHz"

Oops.. Should have proofread before sending. I meant class C, equivalent (I think) to the US Beginner with limited HF privileges. Spain is still holding on to the 8 WPM CW req for this class, and to 12 WPM for class A or "General". I'd still appreciate some advice on the antenna question, though.

792. Re: Newbie - Studying for Tech & planning station setup - Vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 19:47:02 UTC
From: Volker Kerkhoff <volker@kadira-net.com>
Message-ID: <buc3nu$so4$1@gateway.pa.homeip.net>
Source record: 101766

Mikey wrote:
> Volker, good luck with the bureaucratic guantlet you're running.

Yep, but others have done it before, since this new law came out in 1987 (and it has not been reviewed since). Actually a rework is due after a new general telecommunications law came out last year, but I guess that'll be another 6 months at least. 6 months I can hardly wait, I actually don't know how I've been able to wait for almost 20 years since I came of legal age to get a license...

> The only commercially-available vertical(s) I'm aware of that would meet
> your described needs are the Butternut, and the GAP. Butternut can be used
> with either shortened radials, or none at al; you will of course, see
> reduced, but acceptable performance. The GAP vertical uses a set of
> "counterpoises", of a length shorther than for normal radials. They're both
> worth investigation.

Thanks a lot... Local ham shops in a city like Barcelona are really not up to it, I doubt they have a licensed amateur around, and want to sell the most expensive stuff... Although the two antennas you mention are not really cheap...

Another idea would have been to cover up to 40 mts with a G5VR, and then put up a yagi for 80 mts, to keep the expense in turret and rotor within certain limits... What about that? I understand that the G5RV loses a lot of directionality when mounted an an inverted V, so I migh get away with just one of them?

73,

Volker

793. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 19:47:49 UTC
From: Robin <me@here.com>
Message-ID: <4009917d$0$217$fa0fcedb@lovejoy.zen.co.uk>
Source record: 101764

"Bill Turner" <noway@nohow.com> wrote in message
news:r54i00dgg46tp125acfm8ne1u5idd9vtj5@4ax.com...
> Keep in mind the difference in phosphor persistence. TV CRTs are
> designed with enough persistence to make 60 Hz flicker invisible.
> Computer CRTs have no such limitation.
>
> --
> Bill, W6WRT

Computer CRT's also have phosphor persistence, this is also defined by the
physical size and depth of each layer of phosphor as in a TV CRT, the
difference is that the phosphor pixels are smaller, so can convert less
electron beam energy to light, and for a shorter period of time.
Robin

794. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 20:57:21 UTC
From: richardharrison@webtv.net
Message-ID: <9552-4009A1B1-266@storefull-3258.bay.webtv.net>
Source record: 101767

Cecil, W5DXP wrote:
"If a 180 degree reversal in the direction of flow of current ia not a 180 degree reversal in reality, exactly what is it?"

From the 1937 second edition of Terman`s "Radio Engineering" page 70:

"In the case of both open- and short-circuited receivers (transmission line loads) the voltage and current are substantially 90-degrees out of phase at all places along the line except in the vicinity of the quarter-wave-length points where the phase angle rapidly shifts from nearly 90-degrees on one side of unity power factor to nearly 90-degrees on the other side of unity power factor. The voltages on opposite sides of a voltage minimum are therefore substantially 180-degrees out of phase, as are also the currents on opposite sides of a current minimum. In order to show this change of phase, the voltage and current distributions in circuits with distributed constants are frequently drawn as shown in Fig. 34---."

It helps to have Terman`s Figs. 33 and 34 in front of you to be persuaded of the abrupt phase transistions. Terman can be accepted on faith and his truth eventually sinks in.

Best regards, Richard Harrison, KB5WZI

795. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 21:47:35 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <X3iOb.77268$nt4.112412@attbi_s51>
Source record: 101768

My understanding is that the phase of the forward and reflected waves varies along the transmission line. One 'rotates clockwise' the other 'rotates counterclockwise'. In the case of 'perfect reflection', a mathematical study condition, the sum of these two waves varies along the transmission line. The resultant sum produces the minimum and maximum voltage we observe in a slotted line. It is to be noted that the phase shifts at the all half wave points from the load, by convention, rotate from the 'positive' two quadrants to the negative two quadrants. Therefore, a polarity change exists.

Is this the 180 degree phase shift being discussed?

Deacon Dave, W1MCE
+ + +

SNIP

>> At no time do these phases suddenly reverse direction.
>
>
> Aha, so you disagree with Kraus and apparently don't understand the
> thin wire analysis of standing waves in his book.
>
>> If you choose to call the switch from current flow in the positive
>> direction to the negative direction a 180 degree phase shift, so be it.
>

SNIP

796. Re: Xium's "Spilateral antenna...any experience?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 22:29:21 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4009B741.F5EDCB84@cwis.net>
Source record: 101669

Darrell,
Considering the lack of information on the company's
site, I am confident that there is enough fertilizer
there to grow icecream in the Sahara...
'Doc

797. Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 23:10:35 UTC
From: Frank MacKenzie-Lamb <maclamb@charter.net>
Message-ID: <100jg7v914poh2d@corp.supernews.com>
Source record: 101670

Anyone have any good sugesstions for dipoles brand or type (I won't be doing 80M...That's a long strech?

Thanks
NG!I

798. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 23:15:35 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4009c2c2_1@corp.newsgroups.com>
Source record: 101671

Dave Shrader wrote:
> My understanding is that the phase of the forward and reflected waves
> varies along the transmission line. One 'rotates clockwise' the other
> 'rotates counterclockwise'. In the case of 'perfect reflection', a
> mathematical study condition, the sum of these two waves varies along
> the transmission line. The resultant sum produces the minimum and
> maximum voltage we observe in a slotted line. It is to be noted that the
> phase shifts at the all half wave points from the load, by convention,
> rotate from the 'positive' two quadrants to the negative two quadrants.
> Therefore, a polarity change exists.

If a current is 0 + j1.0 amps, exactly where is that one amp of current
located? The real component of phasor current always lies along the 'x'
real axis. A change from +0.001 amp at zero degrees through a zero magnitude
to -0.001 amp at 180 degrees is a 180 degree phase shift in *real* current
that exists in the real world. Imaginary current is, well, imaginary, and
is an artifact of the phasor math model. Has anyone ever measured j1.0 amps
of current at a point where the real current is zero?

> Is this the 180 degree phase shift being discussed?

Originally, the 180 degrees phase shift being discussed was concerning
a current standing wave in a thin wire where the forward current and
reflected current are equal in magnitude. The phase of the net current
is 0 degrees for awhile and then shifts abruptly to 180 degrees according
to Kraus.

There are only two directions in a wire. For an AC signal, the current
is flowing one direction for 1/2 cycle and the other direction for the
other 1/2 cycle. The *real* magnitude of the current varies with physical
length (sin kL) and can be analyzed without any reference to phase.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

799. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 23:17:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4009c341$1_1@corp.newsgroups.com>
Source record: 101672

Frank MacKenzie-Lamb wrote:
> Anyone have any good sugesstions for dipoles brand or type (I won't be doing
> 80M...That's a long strech?

A lot of the fun in ham radio is building your own antennas.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

800. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-17 23:45:19 UTC
From: Mike Coslo <mcoslo@enoughalreadyadelphia.net>
Message-ID: <jOjOb.1691$Fp1.984657@news1.news.adelphia.net>
Source record: 101673

Robin wrote:

> "Bill Turner" <noway@nohow.com> wrote in message
> news:r54i00dgg46tp125acfm8ne1u5idd9vtj5@4ax.com...
>
>>Keep in mind the difference in phosphor persistence. TV CRTs are
>>designed with enough persistence to make 60 Hz flicker invisible.
>>Computer CRTs have no such limitation.
>>
>>--
>>Bill, W6WRT
>
>
> Computer CRT's also have phosphor persistence, this is also defined by the
> physical size and depth of each layer of phosphor as in a TV CRT, the
> difference is that the phosphor pixels are smaller, so can convert less
> electron beam energy to light, and for a shorter period of time.
> Robin

Hey Robin! *You* tell us why computer screens flicker on television.
Then explain why many of them have horizontal bars running vertically
through the pictures. Then explain why the bars are of different sizes
and timing from appearance from top to bottom of the screen. Then
explain why some don't.

- Mike KB3EIA -

801. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 00:00:59 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <%0kOb.12494$q4.10129@newsread3.news.atl.earthlink.net>
Source record: 101674

"Frank MacKenzie-Lamb" <maclamb@charter.net> wrote in message
news:100jg7v914poh2d@corp.supernews.com...
> Anyone have any good sugesstions for dipoles brand or type (I won't be
doing
> 80M...That's a long strech?
>
> Thanks
> NG!I
>
>

Build it. 468 divided by Frequency in MegaHertz. Cut in half, Feed
with 50 ohm coaxial cable. Hang up, talk on it.

Number 14 stranded copper from your local Lowes/Home Depot do the trick.

Don't have any 'real' insulators? Cut some from a hunk of PVC tubing.

Use nylon 'chalk line' to hang it up with.

Dan/W4NTI

802. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 01:00:44 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <6UkOb.6178$A74.2480@fed1read02>
Source record: 101675

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4009c341$1_1@corp.newsgroups.com...
> Frank MacKenzie-Lamb wrote:
> > Anyone have any good sugesstions for dipoles brand or type (I won't be
doing
> > 80M...That's a long strech?
>
> A lot of the fun in ham radio is building your own antennas.
> --
> 73, Cecil http://www.qsl.net/w5dxp

And a dipole is a good start!

Ed
wb6wsn

803. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 01:26:36 UTC
From: w4jle <W4JLE@pbtcomm.net>
Message-ID: <bucncl$57aj$1@news3.infoave.net>
Source record: 101676

Take a piece of wire, divide the frequency you want to operate on in MHz in to 468, cut the wire to this length in feet. Divide it into two pieces and put a center and 2 end insulators on it. Connect the coax, braid to one wire and the center conductor to the other.

Invest the money you just saved in an amateur radio handbook.

--
<--
Monday January 19th is Robert E. Lees Birthday.
http://gilbertnews.net
"Frank MacKenzie-Lamb" <maclamb@charter.net> wrote in message
news:100jg7v914poh2d@corp.supernews.com...
> Anyone have any good sugesstions for dipoles brand or type (I won't be
doing
> 80M...That's a long strech?
>
> Thanks
> NG!I
>
>

804. Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 03:14:22 UTC
From: me <herber@ccser.com>
Message-ID: <IM1Ob.132$p07.4884@eagle.america.net>
Source record: 101748

I am interested to know if there is a way to transmitt FM radio frequencies in a directional path. I need to transmit from 1/8 to 1/4 mile in a very direct narrow pattern. Does anyone know if this is possible.

805. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 03:29:51 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <oIadnaqEu6QjYJTd4p2dnA@comcast.com>
Source record: 101677

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4009c341$1_1@corp.newsgroups.com...
> Frank MacKenzie-Lamb wrote:
> > Anyone have any good sugesstions for dipoles brand or type (I won't be
doing
> > 80M...That's a long strech?
>
> A lot of the fun in ham radio is building your own antennas.
> --
> 73, Cecil http://www.qsl.net/w5dxp

I keep thinking about people who go to the store and buy peeled carrots and
canned potatoes.

Tam/WB2TT

806. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 04:07:39 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400a0735$1_6@corp.newsgroups.com>
Source record: 101678

Tarmo Tammaru wrote:
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>A lot of the fun in ham radio is building your own antennas.
>
> I keep thinking about people who go to the store and buy peeled carrots and
> canned potatoes.

I do that so I will have more time to build antennas. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

807. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 04:50:17 UTC
From: Duane Allen <computeruser@sprintmail.com>
Message-ID: <dgoOb.13820$1e.12034@newsread2.news.pas.earthlink.net>
Source record: 101679

> Piddle means to mess around with things

So does that mean an experimenter attaching an antenna to his chimney is
a piddler on the roof?

Duane, N6JPO

808. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 08:27:50 UTC
From: radioactive <active_radio@hotmail.com>
Message-ID: <nsrOb.3410$zm5.1915@nntpserver.swip.net>
Source record: 101680

My favorite dipole (that is factory-made) is the Icom AH-710. Broadbanded
(1.9 - 30 Mhz), 150 Watt , 3,1 kg, and just 24,5 meter long.
73 de SM4YRH

"Frank MacKenzie-Lamb" <maclamb@charter.net> skrev i meddelandet
news:100jg7v914poh2d@corp.supernews.com...
> Anyone have any good sugesstions for dipoles brand or type (I won't be
doing
> 80M...That's a long strech?
>
> Thanks
> NG!I
>

809. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 10:28:19 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401180228.2b3649e4@posting.google.com>
Source record: 101681

aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
news:<85ed38d.0401151641.1bee0037@posting.google.com>...
> I found it interesting to read on a particular
> antenna page that the antenna future will revolve
> around what the person was presenting.

This does not compute to me...
> He may well be correct if we are all lemmings but
> people who piddle with antennas are a different breed.
> Personaly I see antennas gyrating towards smaller
> antennas where radiation per unit length will finish
> at the top of the heap

Belly dancing antennas? I've never actually seen an antenna gyrate,
but it sounds interesting...

> Antenna engineers have become so focussed on the half
> wave patterns that they have completely ignored the
> low efficiency portions at the ends of a half wave
> antenna.

Says who? BTW, there are no low efficiency portions of a dipole.

Future antennas most surely will remove these
> low efficient radiator parts

Why remove something that doesn't exist?

together with the addition
> of coupling techniques that will help to move away
> from the Yagi syndrome,

What is the "Yagi syndrome"? A disdain for antennas that fail to
compete with yagi's?
together with resolving the
> of a "lossless" coupling direct to the transmitter

Of all your wishes, to me, this is the most foolish . I think you
should erase this "lossless coupling" from your mind, when it applies
to very small antennas. It doesn't exist, and never will. I don't know
if superconductivity could change this or not....I don't have the
superconductive materials needed for such a test..

> that will obsolete the need of matching interface.

You wish...

> Ofcourse this is where my intersts lie, but does this
> vision of the future match yours or am I thinking
> of the impossible?

Well, let me give you a hint....I prefer the largest antennas I can
get away with...I doubt anything will be changing that anytime soon.

One noted Russion scientist stated
> that theoretically radiation can come from a single point,
> is this part of our future or just an impossible dream ?

How does this relate to small antenna's? I don't get your point
here...

> Best regards, and please put your pea shooters aside
> and try to get along rather than looking for
> ten seconds of cheap glory.

I don't have a pea shooter. I can pee a long ways though, if I go into
a holding pattern for about 5 hours after drinking about 14 cups of
coffee...Maybe we should have a rraa peeing contest....I don't want
any glory, if it's cheap. :/ MK

810. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 11:37:46 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400a700f$1_2@news.vo.lu>
Source record: 101682

"Frank MacKenzie-Lamb" <maclamb@charter.net> wrote in message
news:100jg7v914poh2d@corp.supernews.com...
> Anyone have any good sugesstions for dipoles brand or type (I won't be
doing
> 80M...That's a long strech?
>
> Thanks
> NG!I
>
>

Hi,

Check here http://www.astrosurf.com/lombry/qsl-g5rv.htm
If it needs a balun, that can be your "weakest point" in the system. try to
not overload it (high SWR in emission) and protect the balun against
moisture.

73's
Thierry
ON4SKY

811. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 11:56:43 UTC
From: Volker Kerkhoff <volker@kadira-net.com>
Message-ID: <budshk$10k$1@gateway.pa.homeip.net>
Source record: 101683

w4jle wrote:

> If you go to Europe, you go nuts for the first few days getting used to the
> flicker as they use a 50Hz refresh rate.

If a european ever goes to the US or far east he'll posibly go nuts over
one of the main features of the NTSC color system, AKA as "Not Twice
Same Colors"

;-)

73,

Volker

812. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 12:49:31 UTC
From: Volker Kerkhoff <volker@kadira-net.com>
Message-ID: <budvkl$33f$1@gateway.pa.homeip.net>
Source record: 101684
Cross-posted to: rec.radio.amateur.antenna,rec.radio.scanner,rec.radio.shortwave

Pappy127@usa.net wrote:

> "God Bless America" for the freedoms we still have.

I don't know whether I'll take your way or the spanish way. Spanish federal antenna laws have gone a long way for the last 15 years.

Allow me to outline the basic principles:

1. Acess to all information services is free. A community, landlord, HOA or other entity may not oppose to the installation of technical infrastucture in the "part of the building for exclusive use of the interested party" or on the "common surfaces of the building shared by all the users of the property" required to access a particular information service. The interested party shall cover the costs of installation and of restoring the common areas to their initial condition upon termination of usage of the system.

2. If more than one party is interested in the use of a particular service, they must used shared portions of the same infrastructure and share the cost. i.e. 5 tenants want Satellite service "A", so they have to use the same dish. I want to get only FTA channels, with a rotator, so I get to put up my own dish, using the other tenant's pole and tubes for the installation, and I heve to reimburse them proportionally for that.

3. SWL and Scanning ist, strangely enough, seen as "access to pubically available information services". When I put up my first discone on the roof, the chairman of the owner's board came out, wanting to tell me "You can't, it's gonna cause TVI". I told him that it was only for receiving. He asked "What sort of stuff" - I answer "Radio stations fotm around the world". "Well", he says "I'll need to look if thats allowed" - "You needn't" I say "I already informed myself" and hand him a printout of the legal text.

4. Hams are different, but also enjoy more privileges. A ham only gets the letters for the STATION in Spain, not for the license. So he must apply for them providing a file with all the elements of his station, including the radiating ones. Antennas must include calculations about wind and snow load, guying, etc. Once the application is made, the spokesman of the homeowners association gets a letter from the telecomm authority, and has 15 days to oppose. "We don't wand that kind of stuff" or "All he other tenants have oppsed" are not valid reasons.

Oh, and BTW, CBers must also be individually registered with the provice telecomm authority, and get a callsign ECB(Province number)(Three-letter-suffix) and provide initial proof that they acquired their equipment legally and *with* valid and current type approval. They also heve to emit their callsign "when beginning and before endig communication" and "at 5 minutes interval in longer communications". We have amzingly little complaints about RFI and similar issues here...

Yes, it's bureaucratic, but what the hell....

813. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 15:37:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400aa8d8$1_4@corp.newsgroups.com>
Source record: 101686
Cross-posted to: rec.radio.amateur.antenna,rec.radio.scanner,rec.radio.shortwave

Volker Kerkhoff wrote:
> 1. Acess to all information services is free.

Does God provide it as a miracle? That's the only
way it could be free. I'm willing to bet taxpayers
pay for it and all other "free" governmental services.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

814. Smith Chart Plotter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 16:37:59 UTC
From: C Edgar <ehunt@dslextreme.com>
Message-ID: <100ldiqjunq8b7b@corp.supernews.com>
Source record: 101687
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I'm trying to get some info on a Smith Chart Plotter made by Dielectric Products Engineering. It looks like an RF bridge with an input, load and 4 bnc outputs for +/-X and +/-Y-axis. Would appreciate any info.

815. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 16:41:07 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4009612f_5@newsfeed.slurp.net>
Source record: 101688

Brand?....BRAND??? C'mon, we're talking DIPOLES here! Get your wire cutters and soldering iron.

Frank, a G5RV antenna in its pure form is 102 feet long, and will give you 80-10 coverage. But it doesn't have to be 102 feet in a straight line. Put your feedpoint in the center of your cleared area; run the wires out as far as you can, out to your supports. Watever is left, take it down the support, run it along the top of the fence, tie it off to a tree, etc..

At this point, it's not really a G5RV any more. The trick to making this antenna work, is to feed it with twin lead, 300-600 ohm, and a good antenna tuner. In fact, with this system, the wire doesn't necessarily have to be 102 feet long, either - just make it as long as you can get it.

And use a REAL center insulator, please. Budwig,, or Van Gorden, or one of those.

Good luck,
-Mike KI6PR
El Rancho R.F., CA

"Frank MacKenzie-Lamb" wrote
> Anyone have any good sugesstions for dipoles brand or type (I won't be doing
> 80M...That's a long strech?
>
> Thanks
> NG!I
>
>

816. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 17:00:43 UTC
From: Volker Kerkhoff <volker@kadira-net.com>
Message-ID: <bueebjbfn1@gateway.pa.homeip.net>
Source record: 101689
Cross-posted to: rec.radio.amateur.antenna,rec.radio.scanner,rec.radio.shortwave

Cecil Moore wrote:
> Volker Kerkhoff wrote:
>
>> 1. Acess to all information services is free.
>
>
> Does God provide it as a miracle? That's the only
> way it could be free. I'm willing to bet taxpayers
> pay for it and all other "free" governmental services.

Should have specified... Free (as in free speech, not as in free lunch)
not necessarily means free of charge or other contractual terms, but
"must be acessible to anyone wanting to access it and pay the associated
charges and obey the contractual terms that go with it. Alas, I still
can't subscribe to a digital Satellite Pay-TV package sold and marketed
to germany in Spain, because the service provider does not hold a
license for selling in Spain, but I can access the 70-something
Free-to-air Sat cgannels in german, and put up a dish for it, and nobody
can legelly prevent me from doing so.

73,

Volker

817. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 17:52:08 UTC
From: Bert Craig <wa2si@arrl.netNOSPAM>
Message-ID: <cJzOb.1402$OM2.332637@news4.srv.hcvlny.cv.net>
Source record: 101690

"Mikey" <ki6pr@arrl.net> wrote in message
news:4009612f_5@newsfeed.slurp.net...
> Brand?....BRAND??? C'mon, we're talking DIPOLES here! Get your wire
cutters
> and soldering iron.

Agreed, but if it's not his thing...(see below)

> Good luck,
> -Mike KI6PR
> El Rancho R.F., CA
>
> "Frank MacKenzie-Lamb" wrote
> > Anyone have any good sugesstions for dipoles brand or type (I won't be
> doing
> > 80M.

This may just fit the bill. A while back I was looking for some good ladder-line and was steered in this direction. It's just as easy to get the entire doublet tho. Hope that helps, the 40m version has done a fine job for me in the past.

http://www.w7fg.com/ant.htm

73 es GL de Bert, WA2SI

818. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 17:58:17 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <hihl00pl31kg1q5teajalofn7hv1a2aifn@4ax.com>
Source record: 101691

On Sat, 17 Jan 2004 18:10:35 -0500, "Frank MacKenzie-Lamb"
<maclamb@charter.net> wrote:

>Anyone have any good sugesstions for dipoles brand or type (I won't be doing
>80M...That's a long strech?
>
>Thanks
>NG!I
>

Your best bet would be to go to www.arrl.org to order The ARRL Antenna
Book from their store. About 700 pages for $30 or so. It covers all
the popular wire antennas, as well as verticals and beams. To buy the
insulators, wire and feedline you'll need to home build an antenna, go
to net sites for The Wireman, RF Davis, etectera.

It's hard to give you a "brand" for a dipole since they are all
essentially the same, just wire and insulators. One isn't much better
than any other. You might as well build your own. Get a good antenna
book and you can try out a lot of different antenna ideas cheaply.

Bob
k5qwg

819. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 18:20:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400aceff_8@corp.newsgroups.com>
Source record: 101692

Bert Craig wrote:
> "Mikey" <ki6pr@arrl.net> wrote:
>>Brand?....BRAND??? C'mon, we're talking DIPOLES here! Get your wire
>> cutters and soldering iron.
>
> Agreed, but if it's not his thing...

It occurred to me after my posting that he might be blind or
otherwise handicapped. Sorry if that's the case.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

820. Re: Opinion: Dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 18:54:17 UTC
From: Bert Craig <wa2si@arrl.netNOSPAM>
Message-ID: <tDAOb.2207$OM2.568882@news4.srv.hcvlny.cv.net>
Source record: 101693

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:400aceff_8@corp.newsgroups.com...
> Bert Craig wrote:
> > "Mikey" <ki6pr@arrl.net> wrote:
> >>Brand?....BRAND??? C'mon, we're talking DIPOLES here! Get your wire
> >> cutters and soldering iron.
> >
> > Agreed, but if it's not his thing...
>
> It occurred to me after my posting that he might be blind or
> otherwise handicapped. Sorry if that's the case.

It's possible, but not neccesarily so. Although I myself don't mind soldering up a dipole, I respect those who might want a ready-made example.

I read something re. handicapped hams in this month's issue of WorldRadio. From the article 'Your CW fist on the air" by Dennis Franjlin, K6DF: "Don't be so quick to judge the other operator's operating skills since we do not know the circumstances under which they are operating." Not really related directly to the subject, but your comment jogged my memory and I thought it important enough to share.

BTW Cecil, I'm going to give one of my Radio Works antennas a whirl this week. I'm putting up a SuperLoop 40 next week. I'll let you know how it plays. Take care, Cecil and again, GL Frank. :-)

> --
> 73, Cecil http://www.qsl.net/w5dxp

73 de Bert
WA2SI

821. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 18:59:54 UTC
From: tdonaly@aol.com
Message-ID: <20040118135954.22762.00000081@mb-m19.aol.com>
Source record: 101694

Cecil wrote,
>
>Volker Kerkhoff wrote:
>> 1. Acess to all information services is free.
>
>Does God provide it as a miracle? That's the only
>way it could be free. I'm willing to bet taxpayers
>pay for it and all other "free" governmental services.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Yes, like fire and police "protection." I got chewed out
by a Foster City, Ca. motorcycle officer yesterday for
slowing down as I passed a grade school when the
school wasn't in session. That chewing out was free
in the sense I didn't have to pay for it at the time and
was theoretically available to everyone, but the cop's
salary is paid by Foster City taxpayers.
73,
Tom Donaly, KA6RUH

822. SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 19:45:17 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400ae253$1_1@news.vo.lu>
Source record: 101695

Hi,
It seems well-known that the SWR value that you read on an external meter or an antenna tuner is NOT the value measured between itself and the antenna. The SWR value "picked-up" and that you can change is the one measured between this meter or tuner and the transceiver (or the linear amplifier but we consider it as a black box if you use it properly).

But recently I experimented the burning of my PL due to a high SWR, thus high current, and moisture and the end of the line (really, see image of PL's here http://www.astrosurf.com/lombry/qsl-transmission-line2.htm, end of page).

The distance between my RTX and SWR reader is short, about 1 m. But there are about 15m between the SWR and the feed point of my antenna where I had the problem.

So I would like to know if an SWR meter does only read the value upstream or if the properties of the feedline to the antenna does not influence is reading.
At first sight it does as during this problem I had a SWR > 4:1 on the external SWR-meter. This value didn't come from the RTX side which built-in SWR displayed a VSWR 1:1. It really came from the other side, to the antenna, thus contrary to what I think and what is usually stated about the functioning of this device...

Can someone explain me this ?

Thanks in advance

Thierry
ON4SKY

823. What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 19:51:28 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <4tBOb.94287$xy6.169075@attbi_s02>
Source record: 101696

Many hams have just gone thru an ice storm where many have lost the end portions of their elements due to the
weight of ice. Strange thing is that many of those hams who suffered damage are confinced that they see NO difference in their shortened antennas and a few were adamant that the performance had IMPROVED
One local guru who had many books on radio thought that maybe the real world was different to what he read in books!
He then took out his ARRL book and right there is said that gain of two dipoles side by side increases gain in proportion to the spacing between the ends of the dipole.
Since this revelation was in a book it was obvious that what other hams were experiencing with their damaged antennas must be true. So the guru purchased two dipole
and put them side by side and then remove the ends just as the ice storm would and thus increased the gap between the two dipoles, which the A.R.R.L BOOK said would produce more gain.
The guru is now befuddled
He listened to experiences in the REAL WORLD and merged it with what must be right because it was in a BOOK but did not get all this extra gravy he was looking for !.
What is going on between the real world and what is written in books.?
He He!
Regards
Art

824. What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 19:53:15 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <UqBOb.95334$na.51294@attbi_s04>
Source record: 101697

Many hams have just gone thru an ice storm where many have lost the end portions of their elements due to the
weight of ice. Strange thing is that many of those hams who suffered damage are confinced that they see NO difference in their shortened antennas and a few were adamant that the performance had IMPROVED
One local guru who had many books on radio thought that maybe the real world was different to what he read in books!
He then took out his ARRL book and right there is said that gain of two dipoles side by side increases gain in proportion to the spacing between the ends of the dipole.
Since this revelation was in a book it was obvious that what other hams were experiencing with their damaged antennas must be true. So the guru purchased two dipole
and put them side by side and then remove the ends just as the ice storm would and thus increased the gap between the two dipoles, which the A.R.R.L BOOK said would produce more gain.
The guru is now befuddled
He listened to experiences in the REAL WORLD and merged it with what must be right because it was in a BOOK but did not get all this extra gravy he was looking for !.
What is going on between the real world and what is written in books.?
He He!
Regards
Art

825. What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 19:58:47 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <KVAOb.93878$8H.136929@attbi_s03>
Source record: 101699

Many hams have just gone thru an ice storm where many have lost the end portions of their elements due to the
weight of ice. Strange thing is that many of those hams who suffered damage are confinced that they see NO difference in their shortened antennas and a few were adamant that the performance had IMPROVED
One local guru who had many books on radio thought that maybe the real world was different to what he read in books!
He then took out his ARRL book and right there is said that gain of two dipoles side by side increases gain in proportion to the spacing between the ends of the dipole.
Since this revelation was in a book it was obvious that what other hams were experiencing with their damaged antennas must be true. So the guru purchased two dipole
and put them side by side and then remove the ends just as the ice storm would and thus increased the gap between the two dipoles, which the A.R.R.L BOOK said would produce more gain.
The guru is now befuddled
He listened to experiences in the REAL WORLD and merged it with what must be right because it was in a BOOK but did not get all this extra gravy he was looking for !.
What is going on between the real world and what is written in books.?
He He!
Regards
Art

826. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 20:54:11 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <CvKdnSnYO9d0eZfd4p2dnA@ctc.net>
Source record: 101698

> It seems well-known that the SWR value that you read on an external meter
or
> an antenna tuner is NOT the value measured between itself and the antenna.
> The SWR value "picked-up" and that you can change is the one measured
> between this meter or tuner and the transceiver (or the linear amplifier
but
> we consider it as a black box if you use it properly).
>
> But recently I experimented the burning of my PL due to a high SWR, thus
> high current, and moisture and the end of the line (really, see image of
> PL's here http://www.astrosurf.com/lombry/qsl-transmission-line2.htm, end
of
> page).
>
> The distance between my RTX and SWR reader is short, about 1 m. But there
> are about 15m between the SWR and the feed point of my antenna where I had
> the problem.
>
> So I would like to know if an SWR meter does only read the value upstream
or
> if the properties of the feedline to the antenna does not influence is
> reading.

The SWR meter indicates the value from the meter to whatever is after it.
If you insert a device that has a high SWR (because it becomes defective or
for some other reason) between the transmitter and SWR meter (say a switch
or filter), the meter can show a low value if the antenna is ok, but the
transmitter will see a high SWR and may burn out the finals.

827. Re: please recommend any interesting links for hand made SWL antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 21:11:28 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1a7491649ce6f9da98969a@news.individual.net>
Source record: 101700

In article <20031219094321.26083.00001346@mb-m06.aol.com>,
desmoface@aol.com says...
> If you have the room, a beverage can't be beat for receiving...

Yeah, I do all my listening with a beverage close at hand....

> just do an internet search for "beverage antenna."

Oh, you mean an ANTENNA! ;-)

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

828. Re: Marked All Read HELP! SLINKY

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 21:11:29 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1a74923114174edd98969b@news.individual.net>
Source record: 101701

[This followup was posted to rec.radio.amateur.antenna and a copy was
sent to the cited author.]

In article <20031221115524.12189.00001497@mb-m05.aol.com>, jder8745
@aol.com says...
> A while back a posted a query about Slinky antennas. I got several nice replies
> for which I want to thank the senders.
>
> Later I returned to this group only to find I had accidentally marked all the
> threads as READ. Boy is my face RED.
>
> Q: How can I undo this error? I bet I'm not the only one who has done it.
>
> tnx es 73 de jack, K9CUN.

You can visit http://www.google.com/grphp and search all the public
Usenet groups for whatever you like. The archives go back quite a ways.

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

829. Re: Vacation HF antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 21:11:30 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1a7493051134da7898969c@news.individual.net>
Source record: 101703

In article <3fe5e8ea$1_2@corp.newsgroups.com>,
Cecil.A.Moore@ieee.ONEDOT.org says...
> > Which antenna sould I use to work with my yaesu FT-100D, on vacation in the
> > mountains. longwire + tuner, or vertical + tuner or even other solutions.
> >
> > I think a long wire should be the best, but what should be it's best length?
> >
> > Any other tips and info is welcome.
>
> If you have supports, I would use a dipole cut to the lowest frequency
> of interest, fed with ladder-line + tuner. If you don't have supports,
> I would use a center-loaded vertical with radials (like the improved St.
> Louis Vertical). The collapsible SD-20 fishing pole makes a vertical.
> Two of them plus a support make a rotatable dipole. Try
>
> http://www.wr6wr.com/ click on products, then SD-20.

I'll second that. I bought one of these last year at the ARRL Southwest
Division convention in Long Beach. It's great! I've strapped it to the
bumper of my car and put a little VHF antenna atop the thing, works fine
for when I'm doing communications support for special events from a
fixed location like parades or 5K/10K runs, also for when we take the
tent trailer out on a campout. Gets the antennas up pretty high and out
of the way.

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

830. Re: Ethernet "thicknet" coax thru walls of house for ham radio antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 21:11:31 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1a749361294ffb5898969d@news.individual.net>
Source record: 101702

In article <oz0Ib.859844$6C4.584495@pd7tw1no>, spamtrap@gwsn.com says...
> >> I don't think any IT guys use Ethernet cable anymore, so maybe
> >> you can ask them to save some for you when they gut the ceilings,
> >> etc at work.
> >
> > Just make sure you get the "thick" version. The "thin" Ethernet is RG-
> > 58 and not nearly as good, especially on long runs. (Short runs of just
> > a few feet or so are probably okay.)
>
> RG-58 is still widely used in UHF and VHF commercial communications for runs
> in Vehicles. Typically these are anywhere from 4' to 12' depending on the
> vehicle.

Agreed, but I wouldn't want to run it much longer than that.

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

831. Re: W3EDP HF Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 21:11:31 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1a7493de2619a98f98969e@news.individual.net>
Source record: 101704

[This followup was posted to rec.radio.amateur.antenna and a copy was
sent to the cited author.]

In article <3FEAFD6C.22A216E3@cwis.net>, w5lz@cwis.net says...
> Mark,
> Never heard of it, what is it?

http://www.g3ycc.karoo.net/w3edp.htm

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

832. Mazda Navajo 1991 & antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 21:11:33 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1a74957fe243fff598969f@news.individual.net>
Source record: 101705

I just recently acquired a 1991 Mazda Navajo 4WD SUV -- essentially a knock-off of the Ford Explorer. I plan to install antennas on it for 2m/440 and HF. Power levels are not likely to be an issue, as I use an FT-817 which only puts out 5w. I have a mag-mount for the VHF/UHF frequencies, and I have a monster four-magnet mount for HF. What I would like to know is if there are any concerns for this vehicle about:

1) Placement of the antennas;
2) Where to feed the wires into the car; and
3) Anything else you can think of to be cautious of.

My present plan is to put the VHF/UHF antenna in the middle of the roof, about over the back seats, and run the coax in through the little vent window on the passenger side. The big mag-mount will probably go near the back of the roof, with the coax coming in through the back hatch.

Comments or suggestions welcome.

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

833. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 21:18:12 UTC
From: Ian Jackson <REMOVE-THIS-BIT@g3ohx.demon.co.uk>
Message-ID: <3mWN4pKUgvCAFwev@g3ohx.demon.co.uk>
Source record: 101707

In message <budshk$10k$1@gateway.pa.homeip.net>, Volker Kerkhoff
<volker@kadira-net.com> writes
>w4jle wrote:
>
>> If you go to Europe, you go nuts for the first few days getting used to the
>> flicker as they use a 50Hz refresh rate.
>
>If a european ever goes to the US or far east he'll posibly go nuts
>over one of the main features of the NTSC color system, AKA as "Not
>Twice Same Colors"
>
>;-)
>
>73,
>
>Volker
>

Not really true, surely?

There is 'something' about NTSC compared with PAL. However, I've never
seen bad colo(u)r on NTSC sets which was not mainly due to poor signal
quality anyway, and where PAL would probably been the same.

These days, don't they transmit the correct colours as a reference in
the vertical interval, and the set uses (or can use) this to correct the
phase errors?

Ian.

--

834. Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 21:40:38 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <100lvat6t1urpd0@corp.supernews.com>
Source record: 101706

In the Feb. 2004 QST there's an article by AD5X for a mobile antenna using a Hamstick or Bugcatcher with shunt capacitor feed or an L match. Can someone please explain, including the math, on how a ~500pf capacitor transforms 10 ohms to 50 ohms for 40 meters? I get no understand from reading either my ARRL Handbook or ARRL Antenna Handbook. There are no stupid questions, only stupid people asking!
tnx
hank wd5jfr

835. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 22:05:05 UTC
From: jgboyles@aol.com
Message-ID: <20040118170505.12966.00000280@mb-m02.aol.com>
Source record: 101708

>a mobile antenna using a
>Hamstick or Bugcatcher with shunt capacitor feed or an L match. Can someone please explain, including the math, on how a ~500pf capacitor transforms 10 ohms to 50 ohms for 40 meters.

Hi Hank,
One of the eight possible matching solutions using L networks is a shunt capacitor and series inductor. If you have an antenna with some inductive loading as a Hamstick or Bugcatcher one can use the inductive loading as the series inductance, and a shunt capacitor to realize an L matching network. My older antenna handbooks talks about this type matching in the mobile antenna section. If you can measure the complex impedance at the base of the mobile antenna with an analyzer, the Smith Chart will quickly tell you if a shunt Cap. will realize a 50 ohm match.

73 Gary N4AST

836. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 22:27:30 UTC
From: tdonaly@aol.com
Message-ID: <20040118172730.19241.00000185@mb-m26.aol.com>
Source record: 101709

Bill wrote,
>
>On 18 Jan 2004 18:59:54 GMT, tdonaly@aol.com (Tdonaly) wrote:
>
>>Yes, like fire and police "protection." I got chewed out
>>by a Foster City, Ca. motorcycle officer yesterday for
>>slowing down as I passed a grade school when the
>>school wasn't in session.
>
>_____
>
>I'd write a letter to the Chief. Cops have better things to do than
>that.
>
>--
>Bill, W6WRT
>

They sure do, but I make allowances for Foster City because it's such
an uptight, failed little burg of expensive rents and falling population.
You won't find any ham antennas out there, either. Here, in Belmont,
there are antennas all over the place, the police are highly trained
professionals, and real estate prices are through the roof. I'm sure
glad I live here instead of there.
73,
Tom Donaly, KA6RUH

837. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 22:53:52 UTC
From: kashe@rahul.net
Message-ID: <sj3m00heqqr1ts44mum6mcdjlpjrj28t3j@4ax.com>
Source record: 101710

On Sun, 18 Jan 2004 12:56:45 -0800, Bill Turner <noway@nohow.com>
wrote:

>On 18 Jan 2004 18:59:54 GMT, tdonaly@aol.com (Tdonaly) wrote:
>
>>Yes, like fire and police "protection." I got chewed out
>>by a Foster City, Ca. motorcycle officer yesterday for
>>slowing down as I passed a grade school when the
>>school wasn't in session.
>
>_____
>
>I'd write a letter to the Chief. Cops have better things to do than
>that.

Waste of time -- the last thing the chief will admit to
publicly is that one of "our own" was wrong. We have plenty of bozos
like this out here.

838. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-18 23:38:25 UTC
From: jgboyles@aol.com
Message-ID: <20040118183825.12966.00000284@mb-m02.aol.com>
Source record: 101711

>The SWR meter indicates the value from the meter to whatever is after it.
>If you insert a device that has a high SWR (because it becomes defective or
>for some other reason) between the transmitter and SWR meter (say a switch
>or filter), the meter can show a low value if the antenna is ok, but the
transmitter will see a high SWR and may burn out the finals.

He did not say he inserted anything, just that moisture at the end of his transmission line caused a fault. If this was the case, an SWR bridge at the output of his Power Amps should have alerted him to a problem that would potentially destroyed them.
If you want to use an SWR bridge as a protective device, or indicator, it must be placed in the proper position in the antenna system. Modern transceivers have circuits that detect mismatches and reduce power to minimize failed output devices.

73 Gary N4AST

839. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 00:06:06 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <buf71h02ki9@enews1.newsguy.com>
Source record: 101715

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:100lvat6t1urpd0@corp.supernews.com...
> In the Feb. 2004 QST there's an article by AD5X for a mobile antenna using
a
> Hamstick or Bugcatcher with shunt capacitor feed or an L match. Can
someone
> please explain, including the math, on how a ~500pf capacitor transforms
10
> ohms to 50 ohms for 40 meters? I get no understand from reading either my
> ARRL Handbook or ARRL Antenna Handbook. There are no stupid questions,
only
> stupid people asking!
> tnx
> hank wd5jfr

Hi, Hank -

If you have a low value resistor and you want to make it appear to your source to be a higher value resistor, you can add a series resistor or reactance. If you add a resistor, it will use up some of the available power which you intended for the original resistor. So, you use a series reactance instead. The only problem is that you now have some (usually) undesirable reactance to contend with. But, you can get rid of the series reactance by adding a shunt reactance of the opposite type. That is, if you added a series capacitor, you can put in a shunt inductor to compensate. Note that you could have added a series inductor and compensated with a shunt capacitor. Which one you use is a matter of convenience sometimes.

Before I go into the math, I should ask if you are comfortable with complex variables. You know, complex conjugate, R+jX and all that stuff? Besides, the delay will give someone else an opportunity to put in something I've missed or messed up. There are a lot of very knowledgeable guys on this group, you know.

John

840. FS: KLM 1.2-44 LBX YAGIS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 00:22:46 UTC
From: n2ion@aol.com
Message-ID: <20040118192246.28446.00000216@mb-m15.aol.com>
Source record: 101712

I HAVE FOR SALE, 4 KLM 1.2-44LBX YAGIS EMAIL IF SERIOUSLY INTERESTED ONLY

841. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 00:24:14 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400B23AE.DCB71EC1@cwis.net>
Source record: 101713

Art,
Your 'local guru' should pay more attention to what
he reads. But then, he should also be able to understand
what he read. There is no virtue in misunderstanding what
you read. Unless it's the entertainment value of misreading
what you read.
'Doc

842. Need advice

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 00:31:38 UTC
From: Steve Trook <strook@optonline.net>
Message-ID: <KzFOb.4944$OM2.1725023@news4.srv.hcvlny.cv.net>
Source record: 101714

What is the best way and the best type of dipole to use for 10-80 meters? I have limited space though. Help.

843. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 01:12:25 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <100mbo1385lu37b@corp.supernews.com>
Source record: 101716

Well I learnt how to do Bessel functions 40 years ago!
But today, who knows, I think Lipitor took some brain cells.
Go ahead with the complex variables..
I could be the lost son of the square root of minus one!
73
hank wd5jfr

"John Smith" <jocjo_john@yooha.com> wrote in message
news:buf71h02ki9@enews1.newsguy.com...
>
> "Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
> news:100lvat6t1urpd0@corp.supernews.com...
> > In the Feb. 2004 QST there's an article by AD5X for a mobile antenna
using
> a
> > Hamstick or Bugcatcher with shunt capacitor feed or an L match. Can
> someone
> > please explain, including the math, on how a ~500pf capacitor transforms
> 10
> > ohms to 50 ohms for 40 meters? I get no understand from reading either
my
> > ARRL Handbook or ARRL Antenna Handbook. There are no stupid questions,
> only
> > stupid people asking!
> > tnx
> > hank wd5jfr
>
>
> Hi, Hank -
>
> If you have a low value resistor and you want to make it appear to your
> source to be a higher value resistor, you can add a series resistor or
> reactance. If you add a resistor, it will use up some of the available
power
> which you intended for the original resistor. So, you use a series
reactance
> instead. The only problem is that you now have some (usually) undesirable
> reactance to contend with. But, you can get rid of the series reactance by
> adding a shunt reactance of the opposite type. That is, if you added a
> series capacitor, you can put in a shunt inductor to compensate. Note that
> you could have added a series inductor and compensated with a shunt
> capacitor. Which one you use is a matter of convenience sometimes.
>
> Before I go into the math, I should ask if you are comfortable with

complex
> variables. You know, complex conjugate, R+jX and all that stuff? Besides,
> the delay will give someone else an opportunity to put in something I've
> missed or messed up. There are a lot of very knowledgeable guys on this
> group, you know.
>
> John
>
>
>

844. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 01:21:37 UTC
From: Alex V Flinsch <avflinsch@att.net>
Message-ID: <pan.2004.01.19.01.24.48.815406@att.net>
Source record: 101717
Cross-posted to: rec.radio.amateur.antenna,rec.radio.scanner,rec.radio.shortwave

On or about Sun, 18 Jan 2004 18:00:43 +0100, Volker Kerkhoff
<volker@kadira-net.com> wrote about the following in article
<bueebjbfn1@gateway.pa.homeip.net>:

> Should have specified... Free (as in free speech, not as in free lunch)
> not necessarily means free of charge or other contractual terms, but "must

With a statement like that, I knew that you were a Linux user even before
looking at the message headers...

--
Alex / AB2RC
Yaesu Ft100 software for Linux http://www.qsl.net/kc2ivl
Why do they call Radio "Wireless", between my shack and antennas
I must have over 1500 feet of wire!

845. Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 02:44:30 UTC
From: VE3PMK <nospam@nospam.org>
Message-ID: <BC30AEBD.6788%nospam@nospam.org>
Source record: 101619

Anyone know where to buy or how to make resistors suitable for a T2FD or other folded HF dipole designs?

I'm currently using a 330 ohm, 2 watt carbon one, but as such it only usable for receiving. I'd like to find an assortment of values, 100W min, preferably 150 to 200 watts, non-inductive.

Who sells such items, or is there a way to make them?

Thanks,
Pat

846. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 02:51:09 UTC
From: kashe@rahul.net
Message-ID: <aghm00tuid1l548guvrcbrpo0bak39m79a@4ax.com>
Source record: 101718

On Sun, 18 Jan 2004 19:12:25 -0600, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

>Well I learnt how to do Bessel functions 40 years ago!
>But today, who knows, I think Lipitor took some brain cells.
>Go ahead with the complex variables..
>I could be the lost son of the square root of minus one!

Ab-surd. :-)

847. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 03:18:51 UTC
From: richardharrison@webtv.net
Message-ID: <13498-400B4C9B-114@storefull-3252.bay.webtv.net>
Source record: 101620

Art, KB9MZ wrote:
"Personally, I see antennas gyrating towards smaller antennas where radiation per unit length will finish at the top of the heap."

Kraus, W8JK is somewhat famous among many reasons for his experience with close-spaced antenna elements.

On page 184 of the 3rd edition of Kraus` "Antennas for All Applications", is Figure 6-12 containing an ordinarily-spaced broadside driven-array of two dipoles and a driven array radiating in the plane of the two dipoles (an end-fire array), the W8JK array.

A feature of the W8JK array is close-spacing (1/8-wavelength). Gain of the W8JK array is a tiny bit more than that of the 4X wider-spaced broadside array. It`s a pity if you don`t have a copy of Kraus available.

Kraus says in his earl;ier 1950 edition of "Antennas" on page 295:
"The end-fire array of two side-by-side out-of-phase 1/2-wavelength elements discussed in Sec. 11-3 produces substantial gains even when the spacing is decreased to small values."

To my eye, the W8JK array resembles the Adcock antenna if so spaced and polarized. The 1955 edition of Terman has the Adcock on page 1050.

Terman has a comment on page 906 of his 1955 edition regarding "Close-spaced Arrays-Super-gain Antennas. A review of the behavior of broadside and end-fire arrays make it appear that in order to achieve high gain it is necessary that the antenna system be distributed over a considerable space. However, the antennas of Figs. 23-35 and 23-39 obtain enhanced directivity by employing antennas that are closely spaced. Moreover, it can be shown that an end-fire (like a Yagi) type of array that is short compared with a wavelength can theoretically achieve any desired directive gain provided enough radiators are employed and they are suitably phased. Such antennas which give great gain using small over-all dimensions are referred to as super-gain antennas."

Read on. There is a fly in the ointment. Terman says:

" A characteristic of all close-spaced arrays is that as the ratio of size to antenna gain is reduced, the radiation resistance also goes down; this is illustrated by Fig. 23-36. The result is a practical limit to the amount of gain that can be achieved in compact antenna systems, since as the radiation resistance goes down the fraction of the total power dissipated in the antenna loss resistance goes up. The Yagi antenna of Fig.23-39 andf the corner reflector represent about the best that can be achieved----."

So, Art may be on to something to some extent.

Best regards, Richard Harrison, KB5WZI

848. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 03:37:46 UTC
From: Mike Coslo <mcoslo@enoughalreadyadelphia.net>
Message-ID: <eilOb.2287$Fp1.1415192@news1.news.adelphia.net>
Source record: 101621

Ian Jackson wrote:
> In message <budshk$10k$1@gateway.pa.homeip.net>, Volker Kerkhoff
> <volker@kadira-net.com> writes
>
>> w4jle wrote:
>>
>>> If you go to Europe, you go nuts for the first few days getting used
>>> to the
>>> flicker as they use a 50Hz refresh rate.
>>
>>
>> If a european ever goes to the US or far east he'll posibly go nuts
>> over one of the main features of the NTSC color system, AKA as "Not
>> Twice Same Colors"
>>
>> ;-)
>>
>> 73,
>>
>> Volker
>>
>
>
> Not really true, surely?
>
> There is 'something' about NTSC compared with PAL. However, I've never
> seen bad colo(u)r on NTSC sets which was not mainly due to poor signal
> quality anyway, and where PAL would probably been the same.
>
> These days, don't they transmit the correct colours as a reference in
> the vertical interval, and the set uses (or can use) this to correct the
> phase errors?

It is a source of great amusement to listen to people dissing one or
the other - NTSC or PAL, or even SECAM.

They all suck very much. Trying to decide which one sucks the most is a
waste of time.

- Mike KB3EIA -

849. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 03:55:27 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <RyIOb.2778$ZJ1.1138@lakeread01>
Source record: 101622

I am baffled too., If the antenna is too short and therefore exhibits capacitive reactance, why isn't the adding a coil (inductive reactance) enough to balance it out? I guess I don't understand matching networks at all. If the antenna is too capacitive or to inductive add the opposite to get to zero. Seems like you add one or the other but not both to get a match.

Just another dummy trying to figure it out.
--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:100lvat6t1urpd0@corp.supernews.com...
> In the Feb. 2004 QST there's an article by AD5X for a mobile antenna using
a
> Hamstick or Bugcatcher with shunt capacitor feed or an L match. Can
someone
> please explain, including the math, on how a ~500pf capacitor transforms
10
> ohms to 50 ohms for 40 meters? I get no understand from reading either my
> ARRL Handbook or ARRL Antenna Handbook. There are no stupid questions,
only
> stupid people asking!
> tnx
> hank wd5jfr
>
>

850. Re: Need advice

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 03:59:39 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <NCIOb.2780$ZJ1.371@lakeread01>
Source record: 101623

The longest and highest wire you can put up fed in the center with ladder line to a 1:1 balun to a tuner.

Other variations - half horizontal and half vertical. See also Cebik's great articles at http://www.cebik.com/ltv.html and http://www.cebik.com/gup/gup34.html
--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64
"Steve Trook" <strook@optonline.net> wrote in message news:KzFOb.4944$OM2.1725023@news4.srv.hcvlny.cv.net...
> What is the best way and the best type of dipole to use for 10-80 meters?
I
> have limited space though. Help.
>
>

851. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 04:56:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400b6415_5@corp.newsgroups.com>
Source record: 101624

Henry Kolesnik wrote:

> In the Feb. 2004 QST there's an article by AD5X for a mobile antenna using a
> Hamstick or Bugcatcher with shunt capacitor feed or an L match. Can someone
> please explain, including the math, on how a ~500pf capacitor transforms 10
> ohms to 50 ohms for 40 meters? I get no understand from reading either my
> ARRL Handbook or ARRL Antenna Handbook. There are no stupid questions, only
> stupid people asking!

I haven't read the article but it's probably a capacitor in parallel with
a 10+jXL feedpoint impedance. With the right amount of jXL, a parallel
capacitor will convert the impedance to 50 ohms resistive. In this case,
the antenna is operated at a frequency higher than its resonant frequency
and the feedpoint impedance is 10+jXL, i.e. the antenna is too long.

With a 10-jXC feedpoint impedance, a parallel inductor will convert the
impedance to 50 ohms resistive. I'm sure you've seen these coils
at the base of 75m & 40m mobile antennas. In this case, the antenna is
operated at a frequency lower than its resonant frequency and the feedpoint
impedance is 10-jXC, i.e. the antenna is too short.

In my old 15th edition of The ARRL Antenna Book, this is all covered on
page 16-11 under "Matching to the Transmitter". On my version 2 ARRL
Antenna Book CD it is on page 16-13 all explained in detail.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

852. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 05:03:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400b65d3_5@corp.newsgroups.com>
Source record: 101625

VE3PMK wrote:
> Anyone know where to buy or how to make resistors suitable for a T2FD or
> other folded HF dipole designs?
>
> I'm currently using a 330 ohm, 2 watt carbon one, but as such it only usable
> for receiving. I'd like to find an assortment of values, 100W min,
> preferably 150 to 200 watts, non-inductive.
>
> Who sells such items, or is there a way to make them?

I would send you an email but I don't hold out any hope for nospam@nospam.org
Send me an email. I have a bunch of 600 ohm, 50 watt, non-inductive resistors.
Two in parallel gives 300 ohms at 100 watts. Four in series-parallel gives
600 ohms at 200 watts, etc.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

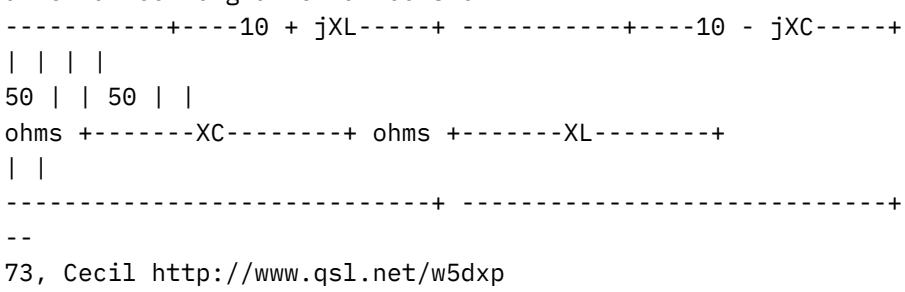
853. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 05:13:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400b682c$1_5@corp.newsgroups.com>
Source record: 101626

Craig Buck wrote:

> I am baffled too., If the antenna is too short and therefore exhibits
> capacitive reactance, why isn't the adding a coil (inductive reactance)
> enough to balance it out? I guess I don't understand matching networks at
> all. If the antenna is too capacitive or to inductive add the opposite to
> get to zero. Seems like you add one or the other but not both to get a
> match.
>
> Just another dummy trying to figure it out.

Do you understand the conversion from a series circuit impedance to a
parallel circuit impedance? There exists a value of XL and XC in the
following that will convert the entire impedance to 50 + j0 ohms.



--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

854. Re: Mobile Ant L match ?

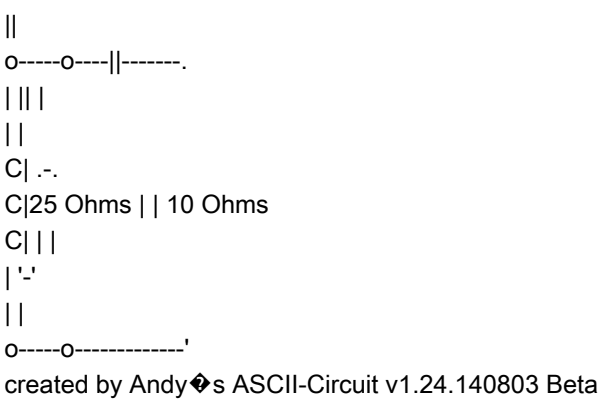
Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 05:24:12 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bufpm001o58@enews4.newsguy.com>
Source record: 101627

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:100mbo1385lu37b@corp.supernews.com...
> Well I learnt how to do Bessel functions 40 years ago!
> But today, who knows, I think Lipitor took some brain cells.
> Go ahead with the complex variables..
> I could be the lost son of the square root of minus one!
> 73
> hank wd5jfr

Since I don't have the QST article with me to use as an example, lets just start with a 10 Ohm resistor like in your OP. You really want 50 Ohms. So what happens if I put a 1.137 nF capacitor (bear with me) in series with it? The reactance of the capacitor is 20 Ohms at 7 MHz. The impedance now looks like 10-j20, right?

```
20 Ohms
||
---||-------.
||  |
|
.-.
| | 10 Ohms
| |
'-'
|
------------'
```

Well, you don't want the -j20 but, if you add +j20 in series to get rid of it, you're just back where you started with 10 Ohms resistive. So, what if you put in a shunt inductor to compensate for the cap?



It is easy to see how much inductance you need if you take the reciprocal of the impedance. That is, find the admittance.

Y = 1/(10-j20) but here is where you do the complex conjugate bit.

Y = (1/10-j20)*(10+j20)/(10+j20) = 10+j20/(100+400) = 0.02+j0.04 and what you really want is .02+j0. (The reciprocal of 50 Ohms).

So, if you add a shunt inductor which is 1/.04 or 25 Ohms at 7 MHz, then you will have only the resistance left.

Once you do that, your equation will be

Z = (10-j20)*(0+j25)/(10-j20+0+j25) = 50+j0

I'll let you prove it to yourself.

If the load is a combination of resistance and reactance, similar procedures can be applied but it sometimes takes some concentrated thought.

If your load resistance is less than the resistance you want, you can use this to find the required series reactance:

X = sqrt(Rload*Rline-Rload*Rload) where the X is either capacitive or inductive (whichever you choose, use the opposite for the shunt). This will give the amount of series reactance needed so that, when you add the shunt reactance as shown above, the resistance will be what you desired.

You can develop a similar approach for working with loads which are higher than desired. Just start by assuming you need a shunt reactance at the load and then a series compensating reactance.

I'm a lousey teacher, but I hope this has helped. If not, there are some great guys here who will come to our aid.

73,
John

>
> "John Smith" <jocjo_john@yooha.com> wrote in message
> news:buf71h02ki9@enews1.newsguy.com...
> >
> > "Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
> > news:100lvat6t1urpd0@corp.supernews.com...
> > > In the Feb. 2004 QST there's an article by AD5X for a mobile antenna
> using
> > a
> > > Hamstick or Bugcatcher with shunt capacitor feed or an L match. Can
> > someone
> > > please explain, including the math, on how a ~500pf capacitor
transforms
> > 10
> > > ohms to 50 ohms for 40 meters? I get no understand from reading either
> my
> > > ARRL Handbook or ARRL Antenna Handbook. There are no stupid
questions,
> > only
> > > stupid people asking!

> > > tnx
> > > hank wd5jfr
> >
> >
> > Hi, Hank -
> >
> > If you have a low value resistor and you want to make it appear to your
> > source to be a higher value resistor, you can add a series resistor or
> > reactance. If you add a resistor, it will use up some of the available
> power
> > which you intended for the original resistor. So, you use a series
> reactance
> > instead. The only problem is that you now have some (usually)
undesirable
> > reactance to contend with. But, you can get rid of the series reactance
by
> > adding a shunt reactance of the opposite type. That is, if you added a
> > series capacitor, you can put in a shunt inductor to compensate. Note
that
> > you could have added a series inductor and compensated with a shunt
> > capacitor. Which one you use is a matter of convenience sometimes.
> >
> > Before I go into the math, I should ask if you are comfortable with
> complex
> > variables. You know, complex conjugate, R+jX and all that stuff?
Besides,
> > the delay will give someone else an opportunity to put in something I've
> > missed or messed up. There are a lot of very knowledgeable guys on this
> > group, you know.
> >
> > John
> >
> >
> >
>
>

855. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 06:00:30 UTC
From: behr@muir.math.niu.edu
Message-ID: <bufrpu$3nu$1@news.math.niu.edu>
Source record: 101628

In article <BC30AEBD.6788%nospam@nospam.org>,
VE3PMK <nospam@nospam.org> wrote:
>Anyone know where to buy or how to make resistors suitable for a T2FD or
>other folded HF dipole designs?

I'm only aware of Ohmite, www.ohmite.com. Last I checked they were
out of values useable for a T2FD. I got an email from a sales rep
promising to try and get me some samples, but it's been 2 months,
so I am not hopeful anymore. Makes me wonder how those companies
survive; they advertise a sought-after one-of-a-kind product, and
then they are unable or unwilling to sell it...

--
Eric Behr | NIU Mathematical Sciences | (815) 753 6727
behr@math.niu.edu | http://www.math.niu.edu/~behr/ | fax: 753 1112

856. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 06:22:33 UTC
From: dplatt@radagast.org
Message-ID: <100mtt93gh5h40f@corp.supernews.com>
Source record: 101629

In article <bufrpu$3nu$1@news.math.niu.edu>,
Eric Behr <behr@muir.math.niu.edu> wrote:

>I'm only aware of Ohmite, www.ohmite.com. Last I checked they were
>out of values useable for a T2FD. I got an email from a sales rep
>promising to try and get me some samples, but it's been 2 months,
>so I am not hopeful anymore. Makes me wonder how those companies
>survive; they advertise a sought-after one-of-a-kind product, and
>then they are unable or unwilling to sell it...

Another option is Caddock. They make some noninductive power film
resistors - the ones in TO-247 cases, well heatsinked, might be a
decent way to build up the bird-foot-warmer for a T2FD.

Mouser carries some of the Caddock resistors. I'm almost certain that
Allied and Newark do, as well.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

857. Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 06:59:28 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0401182259.1a6585a1@posting.google.com>
Source record: 101630

Hi,

I built a Super J-Pole like this one:

http://www.nemr.net/~aschmitz/antennas/jpolecalc.html

For 300 watts, VHF frequencies. With i believe 6 turns of 4"
diameter
inductive loops in the coax (RG-213), just at the base of the antenna.

Problem was, the antenna had an intermittant problem, which turned
out
to be the dielectric foam material MELTING right at the inductive
loops in
the coax. I tore off the outer jacket, and the foam was melting and
oozing
past the outer braid, really nasty...so that the inner conductor was
intermittantly touching the outer braid, most likely.

A real hair-puller, because the super-J looked fine when i took it
down.

Can i get away without using the inductive loops? They are
supposed to be there to prevent the current from going down the
outside braid, right? So
that you don't have radiation along the coax?

Or perhaps i can make fewer turns, or larger diameter loops? So
that the
impedance discontinuity is less severe at this point?

Knowledgable advice much appreciated.

Slick

858. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 11:28:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <100nfq1j8asfq17@corp.supernews.com>
Source record: 101631

Eric Behr wrote:
> In article <BC30AEBD.6788%nospam@nospam.org>,
> VE3PMK <nospam@nospam.org> wrote:
>
>>Anyone know where to buy or how to make resistors suitable for a T2FD or
>>other folded HF dipole designs?
>
>
> I'm only aware of Ohmite, www.ohmite.com. Last I checked they were
> out of values useable for a T2FD. I got an email from a sales rep
> promising to try and get me some samples, but it's been 2 months,
> so I am not hopeful anymore. Makes me wonder how those companies
> survive; they advertise a sought-after one-of-a-kind product, and
> then they are unable or unwilling to sell it...
>

If you were a large company interested in buying 100,000 resistors,
they'd be plenty happy to sell it -- and you'd get the samples, too.

That's how they survive. For sure, they don't survive by selling onsies
to hams.

Roy Lewallen, W7EL

859. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 11:54:44 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <4bhn009karmmk01f9db6qv75jk5479q0pk@4ax.com>
Source record: 101632

Surplus sales of Nebraska has a good selection but they are pricey.
73 Dave

On Mon, 19 Jan 2004 03:28:00 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Eric Behr wrote:
>> In article <BC30AEBD.6788%nospam@nospam.org>,
>> VE3PMK <nospam@nospam.org> wrote:
>>
>>>Anyone know where to buy or how to make resistors suitable for a T2FD or
>>>other folded HF dipole designs?
>>
>>
>> I'm only aware of Ohmite, www.ohmite.com. Last I checked they were
>> out of values useable for a T2FD. I got an email from a sales rep
>> promising to try and get me some samples, but it's been 2 months,
>> so I am not hopeful anymore. Makes me wonder how those companies
>> survive; they advertise a sought-after one-of-a-kind product, and
>> then they are unable or unwilling to sell it...
>>
>
>If you were a large company interested in buying 100,000 resistors,
>they'd be plenty happy to sell it -- and you'd get the samples, too.
>
>That's how they survive. For sure, they don't survive by selling onsies
>to hams.
>
>Roy Lewallen, W7EL

860. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 12:11:21 UTC
From: David Ryeburn <ryeburn@sfu.caz>
Message-ID: <ryeburn-BBE2DC.04112119012004@morgoth.sfu.ca>
Source record: 101633

This explanation will cover much the same ground as "John Smith" <jocjo_john@yooha.com> did in article <bufpm001o58@enews4.newsguy.com>, but in a different way.

In article <RyIOb.2778$ZJ1.1138@lakeread01>, "Craig Buck" <k4ia@cox.net> wrote:

> I am baffled too., If the antenna is too short and therefore exhibits
> capacitive reactance, why isn't the adding a coil (inductive reactance)
> enough to balance it out? I guess I don't understand matching networks at
> all. If the antenna is too capacitive or to inductive add the opposite to
> get to zero. Seems like you add one or the other but not both to get a
> match.

Well, as a rule, this won't be enough.

If you have an antenna which is a bit short of an odd multiple of a quarter wave length, and has a capacitive reactance, then you could put an inductor in series with it and cancel the capacitive reactance but you would still have the same resistance, which might not be 50 ohms. The same would be true if you tried to compensate for the inductive reactance of an antenna a bit longer than an odd multiple of a quarter wave length, just by adding a series capacitor.

Let's take an example. Suppose the antenna impedance is 50 - j20, or 50 ohms of resistance in series with 20 ohms of capacitive reactance. Then adding an inductor with 20 ohms of inductive reactance will solve the problem, giving an impedance of (50 - j20) +j20 = 50 ohms. (I am assuming you want a 50 ohm impedance since you are going to use 50 ohm coaxial cable and have a transmitter which is happiest if connected to a 50 ohm load.)

If the antenna impedance is 50 + jx instead of 50 - j20, you just add an inductor or capacitor with (- x) ohms of reactance (note the opposite sign). If the antenna is capacitive, use an inductor, and vice versa.

But what if the antenna impedance is 10 - j20 instead of 50 - j20? Adding an inductor with 20 ohms of inductive reactance in series with the antenna will cancel out the capacitive reactance all right

(10 - j20) + j20 = 10

but you will be left with a load impedance of 10 ohms and your SWR will be 5 to 1, which will in all likelihood make your transmitter rather unhappy. We need somehow to get the real part of the impedance up to 50 ohms.

The trick is to put the compensating reactor in parallel rather than in series with the antenna.

Let's talk about current instead of resistance, since when loads are placed in parallel, the currents add. Suppose for the sake of argument your transmitter puts out 50 volts. You want the load to draw 1 ampere to make the transmitter think it is seeing a 50 ohm load. Now let's go back to the example of an antenna with impedance 10 - j20. If we connect that antenna directly to this 50 volt producing transmitter, it will draw 50/(10 - j20) amperes from the transmitter and not the desired 1 ampere. 50/(10 - j20) is too complicated to think about, as well as too complex ;-), but we can do a bit of simplifying by multiplying both the numerator and the denominator by (10 + j20). This won't change anything since we're just multiplying by 1, albeit written in a strange way. We get (50*(10 + j20))/((10 - j20)*(10 + j20)) = (500 + j1000)/(100 + 400) = (500 + j1000)/500 = 1 + j2.

The reason this works is that when you multiply out the two factors in the denominator, you get four terms: 10*10, 10*(+ j20), (- j20)*10, and (-j 20)*(+ j20). The second and third terms amount to + j200 and - j200 and they cancel each other. The fourth term is + 400, since j*j = - 1 and therefore (- j)*j = + 1.

Note: The 10 + j20 quantity is called the "complex conjugate" of the 10 - j20 quantity. This trick will always work to make the new denominator a pure real number (no j term) -- just change the sign of the coefficient of j (the imaginary part) in the denominator and multiply. But to be fair, you then have to multiply the numerator by the same thing too, and we did that.

Now what is it that we just calculated? We've calculated the *current*, in amperes, that our antenna will draw from the 50 volt transmitter if connected directly to our 10 + j20 ohm antenna load. The 1 portion is fine -- that's the 1 ampere we want. But in addition to the 1 ampere there's that + j2 ampere quantity. If we connect a reactor that will draw - j2 amperes in *parallel*, not in series, with the antenna, the total current drawn will be (1 + j2) + (- j2) = 1 ampere and the transmitter will no longer be likely to go up in flames. What reactance should that reactor have if it is to draw - j2 amperes when fed with 50 volt? We want the its impedance to be 50/(- j2), and again to see what that means we use the same trick we used before, multiplying both numerator and denominator by the complex conjugate of the denominator. Think of (- j2) as actually being (0 - j2), and you'll see that the complex conjugate is (0 + j2), or in other words just j2. So the desired impedance for the reactor we are going to put in parallel with the antenna is (50*j2)/((- j2)*(j2)) = j100/4 = j25. This means we should put an inductor with 25 ohms of inductive reactance in parallel with the antenna. It will draw 50/(j25) = - 2j amperes (this time do the complex conjugate trick yourself to verify that I divided correctly), and that added to the 1 + j2 amperes that the antenna itself draws will give a total current drain on the transmitter of 1 ampere, so all will be well.

You could assume the transmitter put out a different voltage from 50 volts, and you'd get the same result as I did, but the arithmetic would be uglier.

If you look at what has been calculated, you'll see that it depends critically upon the antenna drawing a current of 1 + jx amperes from the 50 volt transmitter, so that we can compensate by putting something else in parallel that will draw - jx amperes. The "1" part of 1 + jx is essential, since putting a reactor in parallel with the antenna can only change the imaginary part of the current drawn, not the real part. Our 10 + j20 impedance antenna drew a current whose real component was 1 ampere. Provided the real part R of the antenna impedance R + jX is less than 50 ohms, it will always turn out to be the case that you can make the real part of 50/(R + jX) be exactly 1 if you just arrange for X to be a square root of R*(50 - R). (Guess how you can verify this?) I say *a* square root and not *the* square root since there are two of them, one negative and one positive. If the X that you need and the X that you have in the actual antenna impedance R + jX differ, you can fix that by putting another (second) reactor in series with the antenna and pretending that the "antenna" consists of the series combination of the actual antenna and this added (second) reactor. For example suppose this calculation of the square root of 50*(50 - R) shows that, for the particular value of R that your antenna provides, you need either X = 49 or X = - 49, but you actually have X = 20. Then you can either add a (second) inductive reactor with impedance j29, or else a (second) capacitive reactor with impedance - j69, in series with the antenna. Once you have arranged for the antenna, augmented if necessary by such a series reactor, to draw exactly 1 + jx amperes (the value of x being irrelevant) then you put your first reactor in parallel with the (antenna + second reactor in series) combination, and make sure that the first (parallel) reactor draws exactly - jx amperes from the 50 volt transmitter.

If the real part R of the antenna impedance R + jX is exactly R = 50 ohms, then a single reactor of impedance - jX placed in series with the antenna will do the job. Note that in this case R*(50 - R) = 0 and X = 0 = sqrt(R*(50 - R)) as above. In this case there is no first (parallel) reactor, just a second (series) reactor.

It's a little different if the real part R of the antenna impedance R + jX exceeds 50 ohms. In that case, the current drawn by the antenna will again be 50/(R + jX) but the real part of that quantity will be less than 1 ampere. How much less depends upon the value of X, but the larger numerically X is, the smaller the current will be, and even if X = 0, it will only be 50/R amperes which is less than the desired 1 ampere. Putting a reactor in series with the antenna, as we did above, will only make it worse. The trick is instead to put the second reactor in *parallel* with the antenna, and then to put the first reactor in series between the transmitter and the parallel combination of the antenna and second reactor. The calculations are somewhat more complicated than for the case where R < 50, but you now have all the machinery with which to do them.

David, ex-W8EZE

--
David Ryeburn
ryeburn@sfu.caz
To send e-mail, use "ca" instead of "caz".

861. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 13:07:04 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.NET>
Message-ID: <ZvednUwjF884S5bd4p2dnA@comcast.com>
Source record: 101634

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0401182259.1a6585a1@posting.google.com...
> Hi,
>
> I built a Super J-Pole like this one:
>
> http://www.nemr.net/~aschmitz/antennas/jpolecalc.html
>
> For 300 watts, VHF frequencies. With i believe 6 turns of 4"
> diameter
> inductive loops in the coax (RG-213), just at the base of the antenna.
>
> Problem was, the antenna had an intermittant problem, which turned
> out
> to be the dielectric foam material MELTING right at the inductive
> loops in
> the coax. I tore off the outer jacket, and the foam was melting and
> oozing
> past the outer braid, really nasty...so that the inner conductor was
> intermittantly touching the outer braid, most likely.
>
> A real hair-puller, because the super-J looked fine when i took it
> down.
>
> Can i get away without using the inductive loops? They are
> supposed to be there to prevent the current from going down the
> outside braid, right? So
> that you don't have radiation along the coax?
>
> Or perhaps i can make fewer turns, or larger diameter loops? So
> that the
> impedance discontinuity is less severe at this point?
>
> Knowledgable advice much appreciated.
>
>
> Slick

Why do you have this choke at the feed point?

ASS-U-ME the feed is correctly adjusted for a perfect match to the feedline,
what is to be gained by choking the feed line?
(You already know some of what could be lost!)

Ask yourself what currents are necessary to cause the inner conductor to heat
to the point of melting the insulation.

(Could the melting have been caused by the origional installation soldering?)

Ask where are these magnitudes of current generated, and why.

--
*
| __O Thomas C. Sefranek WA1RHP@ARRL.net
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

862. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 13:07:29 UTC
From: Editor-GilbertNews <editor@gilbertnews.net>
Message-ID: <bue7gm$5urq$1@news3.infoave.net>
Source record: 101685

I would agree with that. Once I am use to the flicker, I marvel at the
cnsistancy of color from camera to camera.

"Volker Kerkhoff" <volker@kadira-net.com> wrote in message
news:budshk$10k$1@gateway.pa.homeip.net...
> w4jle wrote:
>
> > If you go to Europe, you go nuts for the first few days getting used to
the
> > flicker as they use a 50Hz refresh rate.
>
> If a european ever goes to the US or far east he'll posibly go nuts over
> one of the main features of the NTSC color system, AKA as "Not Twice
> Same Colors"
>
> ;-)
>
> 73,
>
> Volker
>

863. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 13:31:35 UTC
From: richardharrison@webtv.net
Message-ID: <14319-400BDC37-191@storefull-3258.bay.webtv.net>
Source record: 101635

Art, KB9MZ wrote:
"What is going on between the real world and what is written in books?"

Ever heard: "It`s all Greek to me!"?

Prerequisite education is needed to understand books which are likely accurate. An interpretation may be needed by those lacking the prerequisites. ARRL books do a pretty good job of simplification for many hobbiests.

Best regards, Richard Harrison, KB5WZI

864. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 13:59:30 UTC
From: richardharrison@webtv.net
Message-ID: <14320-400BE2C2-74@storefull-3258.bay.webtv.net>
Source record: 101637

Hank, W5JFR wrote:
"Can someone please explain including the math, on how a ~500pf capacitor transforms 10 ohms to 50 ohms for 40 meters?"

Go back to the books and look at L-networks. It`s in the book.

In my 1970, 12th edition of the ARRL Antenna Book, an L-network example is given for matching a mobile whip to a 50-ohm line. It says on page 296:
"For example, if it is desired to match a 50-ohm liner to a 20-ohm resistance, Xc will be about 46 ohms, and Xl about 25 ohms."

Xl & Xc come from Fig. 15-12 which is used to match 50-ohm coax to whip antennas between 10 and 36 ohms.

The Xc of 500pf at 7 MHz is 46 ohms.

Xc = 1 / (6.28)(f)(C)

Best regards, Richard Harrison, KB5WZI

865. 160 Meter noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 14:04:04 UTC
From: Metalhead <burcha@tampabay.rr.com>
Message-ID: <5lon00hcerse1f029bc7d7gtqsb0e9doer@4ax.com>
Source record: 101636

I have just recently put up a 160 meter inverted L antenna. I briefly had up a shortened inverted V which I had up for about 1 year. I know that 160 is a noisy band, but I am curious what kind of noise levels others normally get on 160. With the inverted V, I would get about a S7 noise level. On the inverted L, I get an S8 noise level (with the noise blanker on.) I understand that the vertical will pick up more man made noise and I do have my share of power line noise here on my small city lot. Is this typically normal or is this extremely noisy for 160? Just curious what kinds of noise levels others get. I am going eventually put up a small receiving loop for 160 meters in the future.

Thanks for any input.

Burch
K4QXX

866. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 14:16:51 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bugosm03059@enews1.newsguy.com>
Source record: 101638

----- Original Message -----
From: "Thomas C. Sefranek" <WA1RHP@ARRL.NET>
Newsgroups: rec.radio.amateur.antenna
Sent: Monday, January 19, 2004 7:07 AM
Subject: Re: Advice Needed for Super J-Pole Design: Inductive Loops
Overheating

> "Dr. Slick" <radio913@aol.com> wrote in message
> news:1d15af91.0401182259.1a6585a1@posting.google.com...
> > Hi,
> >
> > I built a Super J-Pole like this one:
> >
> > http://www.nemr.net/~aschmitz/antennas/jpolecalc.html
> >
> > For 300 watts, VHF frequencies. With i believe 6 turns of 4"
> > diameter
> > inductive loops in the coax (RG-213), just at the base of the antenna.
> >
> > Problem was, the antenna had an intermittant problem, which turned
> > out
> > to be the dielectric foam material MELTING right at the inductive
> > loops in
> > the coax. I tore off the outer jacket, and the foam was melting and
> > oozing
> > past the outer braid, really nasty...so that the inner conductor was
> > intermittantly touching the outer braid, most likely.
> >
> > A real hair-puller, because the super-J looked fine when i took it
> > down.
> >
> > Can i get away without using the inductive loops? They are
> > supposed to be there to prevent the current from going down the
> > outside braid, right? So
> > that you don't have radiation along the coax?
> >
> > Or perhaps i can make fewer turns, or larger diameter loops? So
> > that the
> > impedance discontinuity is less severe at this point?
> >
> > Knowledgable advice much appreciated.
> >
> >
> > Slick

>
> Why do you have this choke at the feed point?

A J-Pole is inherently a balanced antenna (half-wave dipole) fed with a quarter-wave matching section. To feed it with unbalanced line permits common-mode currents on the outside of the line. Coiling the coax to make a common-mode choke is a practice recommended in the ARRL literature (and probably other places) to prevent the currents from traveling on down the line to the source.

> ASS-U-ME the feed is correctly adjusted for a perfect match to the
feedline,
> what is to be gained by choking the feed line?
> (You already know some of what could be lost!)
>
> Ask yourself what currents are necessary to cause the inner conductor to
> heat
> to the point of melting the insulation.

If the antenna had an intermittent problem, I suppose the choke could have taken the brunt of the incident power and melted.

It would be good to know if the melting occurs again without the intermittent condition. If so, the OP will require help from a more knowledgeable source than myself.

> (Could the melting have been caused by the origional installation
> soldering?)
>
> Ask where are these magnitudes of current generated, and why.
>
>
> --
> *
> | __O Thomas C. Sefranek WA1RHP@ARRL.net
> |_-\<,_ Amateur Radio Operator: WA1RHP
> (*)/ (*) Bicycle mobile on 145.41, 448.625 MHz
>
> http://hamradio.cmcorp.com/inventory/Inventory.html
> http://www.harvardrepeater.org
>
>

867. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 14:41:21 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401190641.15999600@posting.google.com>
Source record: 101639

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<13498-400B4C9B-114@storefull-3252.bay.webtv.net>...

>
> Terman has a comment on page 906 of his 1955 edition regarding
> "Close-spaced Arrays-Super-gain Antennas. A review of the behavior of
> broadside and end-fire arrays make it appear that in order to achieve
> high gain it is necessary that the antenna system be distributed over a
> considerable space. However, the antennas of Figs. 23-35 and 23-39
> obtain enhanced directivity by employing antennas that are closely
> spaced. Moreover, it can be shown that an end-fire (like a Yagi) type of
> array that is short compared with a wavelength can theoretically achieve
> any desired directive gain provided enough radiators are employed and
> they are suitably phased. Such antennas which give great gain using
> small over-all dimensions are referred to as super-gain antennas."
>
> Read on. There is a fly in the ointment. Terman says:
>
> " A characteristic of all close-spaced arrays is that as the ratio of
> size to antenna gain is reduced, the radiation resistance also goes
> down; this is illustrated by Fig. 23-36. The result is a practical limit
> to the amount of gain that can be achieved in compact antenna systems,
> since as the radiation resistance goes down the fraction of the total
> power dissipated in the antenna loss resistance goes up. The Yagi
> antenna of Fig.23-39 andf the corner reflector represent about the best
> that can be achieved----."

This is the fly I refer to when he keeps talks about "lossless
matching" for small antennas or arrays..
>
> So, Art may be on to something to some extent.

Not anything really new though. There is no free lunch. Many have
tried to find it, but it's almost always spoiled by the time they
do...:/ I've modeled close spaced arrays that had loads of gain, but
to feed them efficiently in the real world is not going to be easy.
I'm not sure what the most efficient fed "very small" antenna is.
Maybe a magloop? Dunno...But even a magloop's efficiency will be lucky
to be over 70%?? or so. Not exactly what I'd call a lossless feed. MK

868. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 14:55:39 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401190655.34e86003@posting.google.com>
Source record: 101640

" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:<4tBOb.94287$xy6.169075@attbi_s02>...
> Many hams have just gone thru an ice storm where many have lost the end
> portions of their elements due to the
> weight of ice. Strange thing is that many of those hams who suffered damage
> are confinced that they see NO difference in their shortened antennas and a
> few were adamant that the performance had IMPROVED

What type antenna? How did they test? Dunno...I think they were
imagining things..

> One local guru who had many books on radio thought that maybe the real world
> was different to what he read in books!
> He then took out his ARRL book and right there is said that gain of two
> dipoles side by side increases gain in proportion to the spacing between the
> ends of the dipole.
> Since this revelation was in a book it was obvious that what other hams were
> experiencing with their damaged antennas must be true.

Good grief....:/

So the guru purchased
> two dipole
> and put them side by side and then remove the ends just as the ice storm
> would and thus increased the gap between the two dipoles, which the A.R.R.L
> BOOK said would produce more gain.

Uh....I guess it hasn't sunk in that he no longer has 1/2 wave dipoles
anymore.

> The guru is now befuddled

I don't doubt it...

> He listened to experiences in the REAL WORLD and merged it with what must
> be right because it was in a BOOK but did not get all this extra gravy he
> was looking for !.
> What is going on between the real world and what is written in books.?

He is taking what he is reading in books, listening to hokey, most
likely untested claims from the real world, and misapplying the info
to the antennas he is testing. The book info is correct. I guess it
hasn't occurred to him to try two full half wave dipoles like the book
intends. MK

869. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 14:56:28 UTC
From: behr@muir.math.niu.edu
Message-ID: <bugr6skdh1@news.math.niu.edu>
Source record: 101641

In article <100nfq1j8asfq17@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:
>Eric Behr wrote:
>>
>> I'm only aware of Ohmite, www.ohmite.com. Last I checked they were
>> out of values useable for a T2FD. I got an email from a sales rep
>> promising to try and get me some samples, but it's been 2 months,
>> so I am not hopeful anymore. Makes me wonder how those companies
>> survive; they advertise a sought-after one-of-a-kind product, and
>> then they are unable or unwilling to sell it...
>
>If you were a large company interested in buying 100,000 resistors,
>they'd be plenty happy to sell it -- and you'd get the samples, too.

I would think so, but I asked about several value/power combos,
and the rep found 0 stock in all warehouses. So even if I wanted
100,000 I'd have to wait for them to make me some... Seems odd. I
normally have no problem getting "onsies" either for free or a
nominal charge from other big manufacturers, if I can't find them
in retail. Oh, well.

--
Eric Behr | NIU Mathematical Sciences | (815) 753 6727
behr@math.niu.edu | http://www.math.niu.edu/~behr/ | fax: 753 1112

870. looking for coil design sw

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 15:12:26 UTC
From: pa1are <a.harteveld@noio.tudelft.nl>
Message-ID: <bugs39$8nr$1@news.tudelft.nl>
Source record: 101642

I am looking for coil design software (air wound sigle layer)
that also predicts coil Q and accounts for proximity and skin effect.

73, Arend pa1are

871. Re: 160 Meter noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 15:31:00 UTC
From: mike nelson <mike_nelson@acm.org>
Message-ID: <400bf8f0$1_3@athena.netset.com>
Source record: 101643

My experience with inverted -L vs balanced antennas on 160 has been similar, similar noise levels, too. Has me researching both receiving antennas & commercial noise cancellers such as the Timewave ANC-4.

Mike
W8LPR

"Metalhead" <burcha@tampabay.rr.com> wrote in message news:5lon00hcerse1f029bc7d7gtqsb0e9doer@4ax.com...
> I have just recently put up a 160 meter inverted L antenna. I briefly
> had up a shortened inverted V which I had up for about 1 year. I know
> that 160 is a noisy band, but I am curious what kind of noise levels
> others normally get on 160. With the inverted V, I would get about a
> S7 noise level. On the inverted L, I get an S8 noise level (with the
> noise blanker on.) I understand that the vertical will pick up more
> man made noise and I do have my share of power line noise here on my
> small city lot. Is this typically normal or is this extremely noisy
> for 160? Just curious what kinds of noise levels others get. I am
> going eventually put up a small receiving loop for 160 meters in the
> future.
>
> Thanks for any input.
>
> Burch
> K4QXX
>

872. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 15:38:18 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <KRSOb.86913$nt4.134393@attbi_s51>
Source record: 101644

Craig Buck wrote:

> I am baffled too., If the antenna is too short and therefore exhibits
> capacitive reactance, why isn't the adding a coil (inductive reactance)
> enough to balance it out? I guess I don't understand matching networks at
> all. If the antenna is too capacitive or to inductive add the opposite to
> get to zero. Seems like you add one or the other but not both to get a
> match.
>
> Just another dummy trying to figure it out.

Adding the proper reactance in SERIES in the antenna tunes it to RESONANCE. But, the feedpoint, load resistance, will be low; example 10 + j0 ohms, and the VSWR will be 5:1.

Keeping some reactance in the antenna allows a SHUNT REACTANCE to be used for tuning. The input impedance then becomes the parallel combination of the antenna impedance with the shunt impedance. If there is Q in the circuit then an impedance transformation takes place based on the value of [Q + 1].

DD, W1MCE

873. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 15:45:11 UTC
From: jder8745@aol.com
Message-ID: <20040119104511.26490.00000253@mb-m07.aol.com>
Source record: 101645

Someone sed:

"...the meter can show a low value if the antenna is ok, but the transmitter will see a high SWR and may burn out the finals."

==========

It's funny that this old wive's tale about the high SWR "burning out the finals" still exists. I guess it depends on what the meaning of "high" is.

73, Jack, K9CUN

874. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 15:45:30 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <juKdnRgPb-s3ZpbdRVn-jw@comcast.com>
Source record: 101646

www.mouser.com sell Caddock non inductive resistors. The 100 W are about $10 ea in onses.

Tam/WB2TT
"VE3PMK" <nospam@nospam.org> wrote in message
news:BC30AEBD.6788%nospam@nospam.org...
> Anyone know where to buy or how to make resistors suitable for a T2FD or
> other folded HF dipole designs?
>
> I'm currently using a 330 ohm, 2 watt carbon one, but as such it only
usable
> for receiving. I'd like to find an assortment of values, 100W min,
> preferably 150 to 200 watts, non-inductive.
>
> Who sells such items, or is there a way to make them?
>
>
> Thanks,
> Pat
>

875. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 16:14:19 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401190814.298bd4a7@posting.google.com>
Source record: 101647

radio913@aol.com (Dr. Slick) wrote in message
>
> Can i get away without using the inductive loops? They are
> supposed to be there to prevent the current from going down the
> outside braid, right?
Yep, and it's obvious they are really needed in your case. I'm talking
big time...If you neglect that decoupling, the current flowing on the
shield of the coax will skew your pattern up off the horizon. That
will ruin any gain you might see over a 1/4 GP or whatever.

> Or perhaps i can make fewer turns, or larger diameter loops? So
> that the
> impedance discontinuity is less severe at this point?

You will then be reducing the choking of the currents. Not good.
>
> Knowledgable advice much appreciated.

You are seeing why I've never been a fan of those J poles...Frankly, I
think they are weird the way most people build them. And the 1/4 stub
is not even needed if they are using the "tuning ring" setup. Check
out a cushcraft ringo ranger. I prefer the RR design over that "super
J-pole", and even the ringo ranger suffers from a lack of decoupling.
Thats why they came out with the ringo ranger 2. It has a lower
decoupling section, which is a 50 inch piece of coax, which drops
below the feedpoint, parallel with the mast, and then is attached to a
union where the shield of the coax is grounded to the mast. A set of
1/4 wave radials are used at that point as the decoupling device. This
would work with your antenna. But me...I'd rebuild the whole dang
thing over again. :/ I prefer the dual 5/8 wave designs with a lower
1/4 wave decoupling section. IE: copy a isopole, or electrical
clone...You could rebuild a copper J pole to be a ringo ranger 2 clone
fairly easy. That design , while not perfect, does work quite well.
But a tad less than the old isopoles used to do. The isopole was
probably the best dual 5/8 design ever made as far as decoupling of
the feedline. MK

876. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 16:27:20 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401190827.27fe42be@posting.google.com>
Source record: 101648

radio913@aol.com (Dr. Slick) wrote in message
news:<1d15af91.0401182259.1a6585a1@posting.google.com>...
> Hi,
>
> I built a Super J-Pole like this one:
>
> http://www.nemr.net/~aschmitz/antennas/jpolecalc.html
>
> For 300 watts, VHF frequencies. With i believe 6 turns of 4"
> diameter
> inductive loops in the coax (RG-213), just at the base of the antenna.
>
> Problem was, the antenna had an intermittant problem, which turned
> out
> to be the dielectric foam material MELTING right at the inductive
> loops in
> the coax. I tore off the outer jacket, and the foam was melting and
> oozing
> past the outer braid, really nasty...so that the inner conductor was
> intermittantly touching the outer braid, most likely.
>
> A real hair-puller, because the super-J looked fine when i took it
> down.
>
> Can i get away without using the inductive loops? They are
> supposed to be there to prevent the current from going down the
> outside braid, right? So
> that you don't have radiation along the coax?
>
> Or perhaps i can make fewer turns, or larger diameter loops? So
> that the
> impedance discontinuity is less severe at this point?

One note... The 50 inch coax section on the RR2 is for the appx dual
5/8 elements. It's possible it might be better to use a 1/4 wave coax
section on yours, but I'm not sure. You could try both. Use your
receiver, and find a stable repeater and note the signal level.
Whichever length gives the strongest received signal is the one that
is giving the best decoupling. That will be reciprical, so your signal
to them will improve in the same amount. Many years ago, I tried
taking a RR2, and unhooking the lower decoupling section. On the old
IC-22U I used at that time, the signals on most repeaters would drop
appx 4 S units. :(
Decoupling is critical on VHF/UHF verticals. More so than gain from

using longer elements or arrays of them. I often use a well decoupled 1/4 ground plane and do about as well as a gain vertical. If the tip of the 1/4 WL GP is at the same height as the tip of the gain antenna, the difference is quite small. MK

877. Re: looking for coil design sw

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 17:24:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buh3sf$k4c$1@titan.btinternet.com>
Source record: 101650

```
Download program SOLNOID3 from website and run immediately.
----
.....................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....................................................

-------------------------------------------------
> I am looking for coil design software (air wound sigle layer)
> that also predicts coil Q and accounts for proximity and skin effect.
>
> 73, Arend pa1are
>
>
```

878. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 17:46:36 UTC
From: ary <send.mail@dev.null.net>
Message-ID: <pan.2004.01.19.17.46.17.807190@dev.null.net>
Source record: 101651
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Vaughn,

It's quite easy: your best bet is the maximum length of wire you can keep
in your backyard AND as high up in the air as you can afford (trees,
towers, chimneys etc.)

To prevent RFI and TVI, make your antenna symmetrical. Feed it with an
open line, and connect the open line with your TX with an appropriate
coupler (the ARRL Handbook is a good source for information).

Please note you do not need to use a thick gauge of copper wire. Even a
thin gauge of stainless steel wire will do.

You will be pleased very much by the results !!

73 de PA0ARY

On Sat, 03 Jan 2004 18:38:59 +0000, Vaughn Combs wrote:

> I have a few questions and I thought that this may be the group that could
> help. I have a nice sized backyard and would like to construct an antenna
> that would give me good performance on 80-10m bands.
>
> The convenient dimensions would put a support (far end) at either 92 feet
> from the back of the house (support exists that is about 15-20 feet up) or
> 120 feet from the back of the house (mast anchored to the other side of a
> shed could easily be installed. Or a more inconvenient support could be
> erected up to 300 feet out (no support buildings) at the absolute far end of
> the property. The width of the property as seen looking out the back window
> is about 65 feet (no supports existing on either side).
>
> Special circumstances and constraints:
>
> -- No tall trees on the property.
>
> -- Attic shack (attic window is probably about 25 feet up). Need to keep to
> the attic.
>
> -- Cable run from back of house to operating position within the attic would
> be approximately 25 feet
>
> -- MUST eliminate RFI in the shack and house.
>
> My current setup is an end-fed longwire that works well on all bands except
> 40m (rig shuts down as I am dipping the SWR to almost 1:1 ;-). I threw up

> the wire as winter was upon me. I have been off the air for almost 10 years
> and REALLY wanted to get on the air again.
>
> While the longwire is performing quite well with the exception of 40m I am
> getting a ton of RF in the shack and it is blanking out TVs and creating
> loud humming in speakers with 100W from the XMTR. I realize that this is
> most likely due to the fact that I have inefficient RF ground and I have cut
> and run radial at 1/4 wave for each band and ran them under the eaves up
> here in the attic. This has not solved the problem. I am friendly with all
> of my neighbors and have visited them and did testing on the bands with them
> on the phone. They are not experiencing any problems. My wife, while
> understanding, would REALLY like the problem to go away ;-)
>
> My main goal is to build an antenna that will solve the aforementioned RFI
> problem and that will provide good performance given my constraints.
>
> Any ideas would be GREATLY appreciated.
>
> Many Thanks and 73,
> Vaughn
> N2BHA

879. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 17:50:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buh5cunlm1@titan.btinternet.com>
Source record: 101652

How much radiation, in watts, usually occurs from feedlines? Does it make
much difference to anything? Is it worth worrying about?

If it works don't fix it.

Reg.

==========

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0401190827.27fe42be@posting.google.com...
> radio913@aol.com (Dr. Slick) wrote in message
news:<1d15af91.0401182259.1a6585a1@posting.google.com>...
> > Hi,
> >
> > I built a Super J-Pole like this one:
> >
> > http://www.nemr.net/~aschmitz/antennas/jpolecalc.html
> >
> > For 300 watts, VHF frequencies. With i believe 6 turns of 4"
> > diameter
> > inductive loops in the coax (RG-213), just at the base of the antenna.
> >
> > Problem was, the antenna had an intermittant problem, which turned
> > out
> > to be the dielectric foam material MELTING right at the inductive
> > loops in
> > the coax. I tore off the outer jacket, and the foam was melting and
> > oozing
> > past the outer braid, really nasty...so that the inner conductor was
> > intermittantly touching the outer braid, most likely.
> >
> > A real hair-puller, because the super-J looked fine when i took it
> > down.
> >
> > Can i get away without using the inductive loops? They are
> > supposed to be there to prevent the current from going down the
> > outside braid, right? So
> > that you don't have radiation along the coax?
> >
> > Or perhaps i can make fewer turns, or larger diameter loops? So
> > that the
> > impedance discontinuity is less severe at this point?
>
> One note... The 50 inch coax section on the RR2 is for the appx dual

> 5/8 elements. It's possible it might be better to use a 1/4 wave coax
> section on yours, but I'm not sure. You could try both. Use your
> receiver, and find a stable repeater and note the signal level.
> Whichever length gives the strongest received signal is the one that
> is giving the best decoupling. That will be reciprical, so your signal
> to them will improve in the same amount. Many years ago, I tried
> taking a RR2, and unhooking the lower decoupling section. On the old
> IC-22U I used at that time, the signals on most repeaters would drop
> appx 4 S units. :(
> Decoupling is critical on VHF/UHF verticals. More so than gain from
> using longer elements or arrays of them. I often use a well decoupled
> 1/4 ground plane and do about as well as a gain vertical. If the tip
> of the 1/4 WL GP is at the same height as the tip of the gain antenna,
> the difference is quite small. MK

880. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 17:58:31 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <bVUOb.100367$I06.445073@attbi_s01>
Source record: 101653

Mark
Let me only respond to the technical things that you are mistaken on
Radiators do have parts that are inefficient which you
apparently do not accept.
Radiation is created by current. If current was uniform over a radiator
length then the length of the radiator is reduced from 1/2 wave to
wavelength over pi.
This is because voltage becomes more dominant than current at the ends of a
radiator.
If you divide the current curve into uniform radiator length
it should become clear to you that the area under the current curve per unit
length diminishes as the curve moves to zero. This is fundermental but if
you still have problems with this concept by all means continue a technical
dialogue.

Loss less feed systems.
This term is used quite a lot in academia. One can relate it to such things
as household circuits where the radiation is so small it is not considered a
factor in calculations.
. A 'loss less' feed system in say an antenna would comprise of something
short with respect to wave length and would be voltage dominated so that
radiation is minimised by the low value of current.

Regarding efficiency of magnetic loops.
It is clear in this case that we are dealing with a radiatior that is not
only one tenth of a wavelength but also has an impedance dominated by
resistive losses which means that the efficiency will be extremely low and
possibly only a tenth of what you surmised.
There are ways to ensure that low impedance
problems can be overcome, we see similar problems overcome
in very high gain yagi's which tend to have low impedances as efficiency
increases. This problem can be readily overcome in many cases by adding a
second reflector where its proximity to the driven element
reverses the decline in impedance.by adding a coupling effect.
If I have forgotton something technical that you brought up please let me
know.

Ah yes, the yagi syndrome.
Yagi gain is based on boom length assuming other requirements are met. In
the amateaur world boom length is not really a problem for half of the bands
but it is a problem in that boom length and gain have a limit in scope
as well usuitable for many bands. So I would expect that future enginners
will move away from just yagi's and explore methods where direct coupling of
radiators will occur to remove problems of fractional wavelength portions
spacings as one sees with the yagi aproach. and explore other areas, where

turning radius becomes prominent rather than boom length..
But only the future will tell.,which is the subject of this particular
thread.
Art

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0401190641.15999600@posting.google.com...
> richardharrison@webtv.net (Richard Harrison) wrote in message
news:<13498-400B4C9B-114@storefull-3252.bay.webtv.net>...
>
> >
> > Terman has a comment on page 906 of his 1955 edition regarding
> > "Close-spaced Arrays-Super-gain Antennas. A review of the behavior of
> > broadside and end-fire arrays make it appear that in order to achieve
> > high gain it is necessary that the antenna system be distributed over a
> > considerable space. However, the antennas of Figs. 23-35 and 23-39
> > obtain enhanced directivity by employing antennas that are closely
> > spaced. Moreover, it can be shown that an end-fire (like a Yagi) type of
> > array that is short compared with a wavelength can theoretically achieve
> > any desired directive gain provided enough radiators are employed and
> > they are suitably phased. Such antennas which give great gain using
> > small over-all dimensions are referred to as super-gain antennas."
> >
> > Read on. There is a fly in the ointment. Terman says:
> >
> > " A characteristic of all close-spaced arrays is that as the ratio of
> > size to antenna gain is reduced, the radiation resistance also goes
> > down; this is illustrated by Fig. 23-36. The result is a practical limit
> > to the amount of gain that can be achieved in compact antenna systems,
> > since as the radiation resistance goes down the fraction of the total
> > power dissipated in the antenna loss resistance goes up. The Yagi
> > antenna of Fig.23-39 andf the corner reflector represent about the best
> > that can be achieved----."
>
> This is the fly I refer to when he keeps talks about "lossless
> matching" for small antennas or arrays..
> >
> > So, Art may be on to something to some extent.
>
> Not anything really new though. There is no free lunch. Many have
> tried to find it, but it's almost always spoiled by the time they
> do...:/ I've modeled close spaced arrays that had loads of gain, but
> to feed them efficiently in the real world is not going to be easy.
> I'm not sure what the most efficient fed "very small" antenna is.
> Maybe a magloop? Dunno...But even a magloop's efficiency will be lucky
> to be over 70%?? or so. Not exactly what I'd call a lossless feed. MK

881. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 18:29:32 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0401191029.1262b7ae@posting.google.com>
Source record: 101654

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:<juKdnRgPb-s3ZpbdRVn-jw@comcast.com>...
> www.mouser.com sell Caddock non inductive resistors. The 100 W are about $10
> ea in onses.
>
> Tam/WB2TT
> "VE3PMK" <nospam@nospam.org> wrote in message
> news:BC30AEBD.6788%nospam@nospam.org...
> > Anyone know where to buy or how to make resistors suitable for a T2FD or
> > other folded HF dipole designs?
> >
> > I'm currently using a 330 ohm, 2 watt carbon one, but as such it only
> usable
> > for receiving. I'd like to find an assortment of values, 100W min,
> > preferably 150 to 200 watts, non-inductive.
> >
> > Who sells such items, or is there a way to make them?
> >
> >
> > Thanks,
> > Pat
> >

What are the drawbacks to using std wire wound resistors if one
orients them in CW and CCW fashion?
Since they are in series the capacitance should be minimal
Art

882. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 18:29:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400c22bc_6@corp.newsgroups.com>
Source record: 101655

JDer8745 wrote:
> It's funny that this old wive's tale about the high SWR "burning out the
> finals" still exists. I guess it depends on what the meaning of "high" is.

If high SWR and the attendant mismatch cannot burn out a final,
I wonder why most commercial finals are protected from a high SWR
by foldback circuitry to avoid damage to the finals?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

883. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 18:32:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400c2386_6@corp.newsgroups.com>
Source record: 101656
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

ary wrote:
> It's quite easy: your best bet is the maximum length of wire you can keep
> in your backyard AND as high up in the air as you can afford (trees,
> towers, chimneys etc.)

Hmmmmm, my back yard is ten acres. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

884. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 18:38:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400c24c1_6@corp.newsgroups.com>
Source record: 101657

Art Unwin KB9MZ wrote:
> This is because voltage becomes more dominant than current at the ends of a
> radiator.

Are you aware that the voltage is never more dominant
than the current in a terminated antenna like a rhombic?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

885. Re: Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 18:39:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400c252d_6@corp.newsgroups.com>
Source record: 101658

me wrote:
> Added: I am trying to transmit the entire fm broadcast bandwidth 88-108mhz.
> very low power, very narrow pattern.

Is that legal?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

886. Dipoles!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 18:53:00 UTC
From: macve3gro@aol.com
Message-ID: <20040119135300.17062.00000334@mb-m03.aol.com>
Source record: 101659

Even if you "buy" a dipole, it will still be a kit. You'll have to wrap wires around insulators, solder connections, and fiddle with lengths after the antenna is up. Get an ARRL Antenna Book or an ARRL Handbook, some wire, insulators and coax, and brew your own. It will work as well as antenna from a kit, be cheaper, and you'll learn about antennas in the process. Good luck es
73. Harry, VE3GRO
Harry MacLean, VE3GRO
500 Riverside Drive, London, ON N6H 2R7
(519) 473-1668

887. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 18:56:24 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <sLVOb.85122$sv6.200568@attbi_s52>
Source record: 101660

No Cecil I have never been fortunate to own a rombic
or even to bone up on it.
But Cecil, if it affects the validity of what I am saying please pipe up. We
certainly do not want any old wives tales to grow without dissent from those
knoweledgable in the field whose numbers are getting smaller all the time.
Best regards
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:400c24c1_6@corp.newsgroups.com...
> Art Unwin KB9MZ wrote:
> > This is because voltage becomes more dominant than current at the ends
of a
> > radiator.
>
> Are you aware that the voltage is never more dominant
> than the current in a terminated antenna like a rhombic?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

888. How to make phasing line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 19:01:18 UTC
From: J Koli <jkolin@optonline.net>
Message-ID: <2QVOb.21428$OM2.5152625@news4.srv.hcvlny.cv.net>
Source record: 101661

Hw can I construct 110 deg phasing line for 3.8mhz? 450 ohm window type ladder line preferred.

This is for 2 dipoles each 121' long and 70' apart. Height above avg ground 60'. I would like to feed 1 dipole 110 deg out of phase of the other..

Jay NE2Q

889. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 19:04:58 UTC
From: pw342@hotmail.com
Message-ID: <5f7b361.0401191104.32dc31fd@posting.google.com>
Source record: 101662

Interesting discussion. As a the former treasurer of a large complex(250 units), I was the chair of the roofing committee. The roofs were all failing on 30 buildings and an inspector was hired to review them. The junk that was attached to the roofs was one of the major problems. Cables penetrating the surface etc.
In one case, a TV antenna was screwed right into the roof. When it comes to common property like that, the association cannot allow individuals to attach their own private stuff wherever they want.
So, homeowners can put up a TV antenna, but the association has to protect the roofs, at a minimum, from damage.
I don't know how you can accomplish both.
Pat W

890. Bazookas!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 19:10:57 UTC
From: macve3gro@aol.com
Message-ID: <20040119141057.17062.00000341@mb-m03.aol.com>
Source record: 101663

The main reason hams became interested in bazooka antennas was their purportedly wider bandwidth at which they offered <2:1 SWR. Their effectiveness has largely been discredited by Maxwell and others. Apparently the bandwith increase is very small and not worth the effort of fiddling with various bits of coax, and the tradeoff is reduced efficiency. Two simpler ways of getting wider bandwidth without reducing efficiency: 1) a fan dipole, or 2) a wire, unbroken and unconnected to your main dipole, resonant at a second frequency of interest, and run in parallel about 6" - 1' away from the main dipole. For 80-75 metres, the main dipole might be cut for 3600 kHz, the parallel wire for 3800 kHz. You will get low SWR at both frequencies and acceptable SWR in between. Check out some of the latest ARRL antenna construction books for info on this little used technique. Cheers es 73. Harry, VE3GRO
Harry MacLean, VE3GRO
500 Riverside Drive, London, ON N6H 2R7
(519) 473-1668

891. Why do we use thin antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 19:22:51 UTC
From: n1jpr@hotmail.com
Message-ID: <95a201e0.0401191122.68b4b2e0@posting.google.com>
Source record: 101664

Purdon my deep egnorance, but, why do we tend to use thin conductors for antennas? I know of only few counter-examples, all at VHF and above:
- a discone can be made of sheet metal, rather than thin radials
- a log-periodic broadband dipole can be made as an etched spiral pattern on PCB (and I guess it can't be made with constant section conductors at all...)

I know that things get more complicated at higher frequencies, what with slot antennas & suchlike.

A connected curiosity is regarding short active receiving antennas on HF. My concern is putting together an efficient, mobile mounted, all-band HF receiving antenna. If we use short whips, they show an extremely high impedance and require a carefully designed matching amplifier. At such high impedance levels, a broad 3-30MHz bandpass filter may not be easy to design - so I have been told.

But I wonder - why not use 1-2 sqft of conductive surface instead, e.g PCB or big bore copper rainpipe, worked against the car body?

I just ran an unscientific experiment. I grounded a pocket HF receiver to a steel-topped table, and balanced a steel pot lid on the top of its collapsed whip antenna. Signals were booming. A 10" PCB disk, placed 5" above the steel roof of a car shouldn't be much different.

Comments?

892. Grounding lug source K400 trunk lip

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 19:24:43 UTC
From: bschmidt12@charter.net
Message-ID: <8fde2bbd.0401191124.655bc077@posting.google.com>
Source record: 101665

Anyone have a source for the lug that goes to ground on a Diamond K400
antenna?
It appears to be a 5/8 or 3/4" solder or crimp on. I was able to
obtain 2, but would like to have a few more.

Thanks

Bob, WA9JDR

893. Re: looking for coil design sw

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 19:43:15 UTC
From: Eskay <sieb_kNOS@PAMyahoo.ca>
Message-ID: <mqy5ct652jlq.11jiwcrrfftbw.dlg@40tude.net>
Source record: 101666

On Mon, 19 Jan 2004 16:12:26 +0100, pa1are wrote:

> I am looking for coil design software (air wound sigle layer)
> that also predicts coil Q and accounts for proximity and skin effect.
>
> 73, Arend pa1are

Wel es van HamCalc gehoord?
Download at CQ magazine..
73 de VE3JUA.

894. Mechanically designed FM/VHF (87.5-108Mhz) Omidirectional antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 19:47:40 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <buhc7i$f487f$1@ID-150848.news.uni-berlin.de>
Source record: 101667

In the UK, it seems that apart from the "halo" type omnidirectional antenna (ie folded dipole bent into a circle) there are no other commercial omnidirectional offerings. I mean marketed for the listener. So, it looks like one has to homebrew an FM antenna.

Does anyone know of any online plans for an already mechanically engineered FM/VHF omnidiectional antenna? Could be turnstile, slim jim, j-pole, ground plane, co-linear, or whatever. Or, any designes published in magazines.

TIA.

895. Re: Why do we use thin antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 20:01:29 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <buhd2p$n0t$1@mail.specsol.com>
Source record: 101668

SpamLover <n1jpr@hotmail.com> wrote:
> Purdon my deep egnorance, but, why do we tend to use thin conductors
> for antennas? I know of only few counter-examples, all at VHF and
> above:
> - a discone can be made of sheet metal, rather than thin radials
> - a log-periodic broadband dipole can be made as an etched spiral
> pattern on PCB (and I guess it can't be made with constant section
> conductors at all...)

> I know that things get more complicated at higher frequencies, what
> with slot antennas & suchlike.

> A connected curiosity is regarding short active receiving antennas on
> HF. My concern is putting together an efficient, mobile mounted,
> all-band HF receiving antenna. If we use short whips, they show an
> extremely high impedance and require a carefully designed matching
> amplifier. At such high impedance levels, a broad 3-30MHz bandpass
> filter may not be easy to design - so I have been told.

> But I wonder - why not use 1-2 sqft of conductive surface instead, e.g
> PCB or big bore copper rainpipe, worked against the car body?

> I just ran an unscientific experiment. I grounded a pocket HF
> receiver to a steel-topped table, and balanced a steel pot lid on the
> top of its collapsed whip antenna. Signals were booming. A 10" PCB
> disk, placed 5" above the steel roof of a car shouldn't be much
> different.

> Comments?

Wire is thin, light, cheap, easy to support, and it works.

Fat and solid things have high wind loadings, are heavy, and are difficult
to support, especially in the wind.

Short mobile antennas are used because tall mobile antennas hit things. Do
they have parking structures where you come from?

Try holding your pot lid out the window of your car while doing 65 mph
and the answers becomes pretty obvious.

BTW, a disk on the top of a vertical is called a top hat, is pretty common,
and a disk made of thin radials works just about as well as a solid disk
with a small fraction of the weight and wind loading.

All real antennas are a compromise between electrical and mechanical
concerns.

For example, I have a 40M vertical in the back yard made of aluminum tubing. The bottom start out at 1 1/4 inch and tapers down to about 1/2 inch at the top. It is supported by a piece of water pipe driven a couple of feet into the ground and guyed with cheap UV resistant dacron line tied to eye screws screwed into existing structures. It has been there for 15 years and I've replaced the guys once.

While a vertical made of 12 inch pipe might show a slightly greater bandwidth, it would take machinery to get such a beast into the vertical position, a concrete base to support it, and heroic guying and associated attachement points to keep it vertical when the winds hit 70 mph.

If I wanted such an antenna, a cage made of thin wire would work just as well as a solid vertical without all the mechanical support problems.

--
Jim Pennino

Remove -spam-sux to reply.

896. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 20:19:17 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <400c3aef$0$327$ba620e4c@news.skynet.be>
Source record: 101569

PAL is based on the NTSC system excepted that every other color vectors are reversed in order to (visually) compensate the color transmission errors.

Secam is a sequential system (French acronym for S�quentiel � m�moire). PAL has also been improved by the use of 64 uSec delay lines originally used by SECAM. In the past time we could receive both kind of channels but now on the cable everything is converted to PAL, including NTSC channels. My preference about quality went always to SECAM, the worst being NTSC.

73 de ON5MJ - Jacques.

897. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 20:21:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buhe7t$7rd$1@sparta.btinternet.com>
Source record: 101570

> I wonder why most commercial finals are protected from a high SWR
> by foldback circuitry to avoid damage to the finals?
> --
> 73, Cecil
>
==========

They don't. There isn't an SWR meter on the station.

They are really protecting the finals against excessive deflection of the
TLI. (Transmitter Loading Indicator.)

But it sure makes a good point of conversation amongst the old wives.

Reg, G4FGQ

898. Re: Why do we use thin antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 20:25:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buhegk$h8e$1@hercules.btinternet.com>
Source record: 101571

Thickness is mainly a matter of making them self-supporting.

899. Re: Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 20:38:15 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <400c3f61$0$299$ba620e4c@news.skynet.be>
Source record: 101572

Hi,

It seems you want to repeat the all FM band. But how shall you avoid oscillations/ saturation between RX-TX ?

Here in city tunnels we have this kind of repeaters (because we also have jams), the system RX antenna being outdoors (and not in the field of the TX radiation) and the radiating element being a leaking coax spread in the tunnels.

Does somebody have a good solution ?

73 de ON5MJ - Jacques.

900. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 20:56:05 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <400c438f$0$283$ba620e4c@news.skynet.be>
Source record: 101573

Hi Art,

> What are the drawbacks to using std wire wound resistors if one
orients them in CW and CCW fashion?

Maybe if you use the same resistors they are wounded the same way and you
can't have one CW and the other CCW if you place them in series. No ?

73 de ON5MJ - Jacques

901. Re: How to make phasing line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 21:13:25 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <VLXOb.100682$8H.147484@attbi_s03>
Source record: 101574

J Koli wrote:
> Hw can I construct 110 deg phasing line for 3.8mhz? 450 ohm window type
> ladder line preferred.
>
> This is for 2 dipoles each 121' long and 70' apart. Height above avg
> ground 60'. I would like to feed 1 dipole 110 deg out of phase of the
> other..
>
> Jay NE2Q

110/360 = 0.305 wavelength
0.305 wavelength * 0.95 velocity factor = 0.2897 wavelength in ladder line.

300,000,000 meters/ 1800000 Hz = 166.67 meters free space wavelength.

166.67 * 39.37 / 12 = 546.8 feet.

So, 0.2897 * 546.8 = 155.48 > ~ 158.4 feet.

902. Re: Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 21:18:21 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <buhhm9$304$1@newshost.mot.com>
Source record: 101576

Single frequency repeaters have been used, but the wide bandwidth here can be a problem. In some situations two antennas is all that is needed - probably not here, but inside a car, for example. The next step is just two antennas with amplification. I have used this in a conference room for analog cellular - two tuplexers and two amplifiers for the Tx & Rx bands.

Using gain antennas back to back (high FB) and controlled gain in the repeater, it has be done at VHF FM. If the destination can possibly hear both the original and repeated signals, then it also needs to be coherent - that is:... receive - mix down, amplify, mix back up to freq.
The poster should provide more information on just what is desired. There are things called "community Repeaters" which have been used for towns in a valley to receive TV & FM broadcase.

--
Steve N, K,9;d, c. i My email has no u's.

"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:400c3f61$0$299$ba620e4c@news.skynet.be...
> Hi,
>
> It seems you want to repeat the all FM band. But how shall you avoid
> oscillations/ saturation between RX-TX ?
>
> Here in city tunnels we have this kind of repeaters (because we also have
> jams), the system RX antenna being outdoors (and not in the field of the
TX
> radiation) and the radiating element being a leaking coax spread in the
> tunnels.
>
> Does somebody have a good solution ?
>
> 73 de ON5MJ - Jacques.
>
>

903. mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 21:34:50 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <100ojmpq4rnnhcb@corp.supernews.com>
Source record: 101575

QST
It's been a while since I posted all that bazooka data that made me stick to dipoles, so here goes:
I've been using Hustlers mobile for almost 40 years and find them adequate; The mast I bought in 1970 only recently failed.
I'm reworking my HF mobile installation around a TS-480HX and decided to graduate to a screwdriver. I bought a Tarheel 200.
I prefer to operate a mobile antenna at it's resonant frequency and match to the impedance of the transmission line with a transformer.
So here I present the resonant feedpoint impedances of a Hustler (small resonators), the Tarheel 200 screwdriver and a 103" whip on a bug catcher on a 54" Hustler base. All antennas on the same ball mount. Measurements by MFJ. "Resonant" implies X=0.

band Hustler Screwdriver 103"/BugCatcher/54"
80 21 ohms 9 ohms 23 ohms
40 25 11 na
20 30 30
10 40 32

I really thought the huge bug catcher would do better.
The screwdriver shows encouraging results for signal improvement over the others on 80 and 40.
Seems the diameter of that bottom conductor on the screwdriver makes a big difference at the lower frequencies.
Since the TS-480HX has two antenna jacks, I think an additional small screwdriver is in order; One for 80-20; One for 20-6.
73
H.
NQ5H

904. Re: Mechanically designed FM/VHF (87.5-108Mhz) Omidirectional antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:01:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buhk3r$3bh$1@hercules.btinternet.com>
Source record: 101577

An approximate 1/2 wave dipole bent into the form of a circle is not an omnidirectional antenna. But it is good enough not to make a lot of difference.

It behaves as a magloop with the tuning capacitor set to zero and is therefore not easily tuneable.

It has a fairly high Q and therefore a narrow bandwidth appreciable smaller than a 1/2-wave dipole, and the feedpoint impedance is appreciably lower than the normal 70-ohms.

The narrow bandwidth make a mess of the required wide bandwith of 87.5-108 MHz. This is the main disadvantage compared with a straight 1/2-wave dipole.

The impedance mismatch is high at the band edges of 87.5 and 108 MHz. But this applies whatever type of antenna(s) is involved.

Unless you want to go to 90-degree phased crossed dipoles your simple circular loop will be as good as anything.

Or, ideally, you could switch between two well-spaced antennas, orientated at 90-degrees, each with its own feedline to the receiver.

The other omni-directional antennas you mention are vertically polarised and are not suitable for reception of FM broadcasting stations.

Reg, G4FGQ

==========

> In the UK, it seems that apart from the "halo" type omnidirectional
antenna
> (ie folded dipole bent into a circle) there are no other commercial
> omnidirectional offerings. I mean marketed for the listener. So, it
looks
> like one has to homebrew an FM antenna.
>
> Does anyone know of any online plans for an already mechanically
engineered
> FM/VHF omnidiectional antenna? Could be turnstile, slim jim, j-pole,
ground
> plane, co-linear, or whatever. Or, any designes published in magazines.
>
> TIA.
>
>
>

905. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:27:09 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0401191427.3ec822d6@posting.google.com>
Source record: 101578

"John Smith" <jocjo_john@yooha.com> wrote in message
news:<bugosm03059@enews1.newsguy.com>...
> > >
> > > Knowledgable advice much appreciated.
> > >
> > Why do you have this choke at the feed point?
>
>
> A J-Pole is inherently a balanced antenna (half-wave dipole) fed with a
> quarter-wave matching section. To feed it with unbalanced line permits
> common-mode currents on the outside of the line. Coiling the coax to make a
> common-mode choke is a practice recommended in the ARRL literature (and
> probably other places) to prevent the currents from traveling on down the
> line to the source.
>

Thanks for explaining it to the "expert".

>
>
> If the antenna had an intermittent problem, I suppose the choke could have
> taken the brunt of the incident power and melted.
>
> It would be good to know if the melting occurs again without the
> intermittent condition. If so, the OP will require help from a more
> knowledgeable source than myself.
>

Well this is what i need to know, can i get away without the inductive loops?

>
>
> > (Could the melting have been caused by the origional installation
> > soldering?)
> >
> > Ask where are these magnitudes of current generated, and why.
> >

Ask yourself why you answered when i wanted knowledgable advice.

Slick

906. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:38:55 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400c5c84$1_2@news.vo.lu>
Source record: 101579

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040118183825.12966.00000284@mb-m02.aol.com...
> >The SWR meter indicates the value from the meter to whatever is after it.
> >If you insert a device that has a high SWR (because it becomes defective
or
> >for some other reason) between the transmitter and SWR meter (say a
switch
> >or filter), the meter can show a low value if the antenna is ok, but the
> transmitter will see a high SWR and may burn out the finals.
>
> He did not say he inserted anything, just that moisture at the end of his
> transmission line caused a fault. If this was the case, an SWR bridge at
the
> output of his Power Amps should have alerted him to a problem that would
> potentially destroyed them.
> If you want to use an SWR bridge as a protective device, or indicator,
it
> must be placed in the proper position in the antenna system. Modern
> transceivers have circuits that detect mismatches and reduce power to
minimize
> failed output devices.

Indeed. A good suggestion I could install (in case of)
Thierry

>
>
> 73 Gary N4AST

907. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:39:23 UTC
From: jder8745@aol.com
Message-ID: <20040119173923.11447.00000301@mb-m05.aol.com>
Source record: 101580

Someone sed:
"In the Feb. 2004 QST there's an article by AD5X for a mobile antenna using a Hamstick or Bugcatcher with shunt capacitor feed or an L match."
==========
A well known circuit theorem states that any finite impedance, e.g an antenna, can transformed to any other finite impedance, e.g. 50 + j0 Ohms, by an L network consisting of no more than two lossless elements.

Given that you can use short or open circuits as one or both of the elements there are 8 possible configurations of such a circuit.

I have the equations programmed into my H-P 48 calculator.

73 de Jack, K9CUN

908. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:40:12 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400c5cd1$1_1@news.vo.lu>
Source record: 101581

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:400c22bc_6@corp.newsgroups.com...
> JDer8745 wrote:
> > It's funny that this old wive's tale about the high SWR "burning out the
> > finals" still exists. I guess it depends on what the meaning of "high"
is.
>
> If high SWR and the attendant mismatch cannot burn out a final,
> I wonder why most commercial finals are protected from a high SWR
> by foldback circuitry to avoid damage to the finals?

Indeed.
I always hear and read that a high SWR can destroy the PA final of TX,
cranck coils, etc.

Thierry

> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

909. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:43:07 UTC
From: jder8745@aol.com
Message-ID: <20040119174307.11447.00000302@mb-m05.aol.com>
Source record: 101582

Well sed!

910. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:43:47 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <buhmmfacb1@newshost.mot.com>
Source record: 101587

I think an answer is also that even IF YOU COULD GET CW & CCW resistors it would not matter. Inductance does not change based on the direction of winding and a CW coil won't somehow subtract the inductance of a CCW coil.

One way of getting this is to use many resistors in parallel with low inductance connecting methods.. There are non-inductive resistors. Try a search. Also, MFJ and others, make high power loads. I don't remember the other company, try the Magazine ads.

--
Steve N, K,9;d, c. i My email has no u's.
"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:400c438f$0$283$ba620e4c@news.skynet.be...
> Hi Art,
>
> > What are the drawbacks to using std wire wound resistors if one
> orients them in CW and CCW fashion?
>
>
> Maybe if you use the same resistors they are wounded the same way and you
> can't have one CW and the other CCW if you place them in series. No ?
>
> 73 de ON5MJ - Jacques
>
>

911. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:45:16 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400c5e01$1_2@news.vo.lu>
Source record: 101583

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040118183825.12966.00000284@mb-m02.aol.com...
> >The SWR meter indicates the value from the meter to whatever is after it.
> >If you insert a device that has a high SWR (because it becomes defective
or
> >for some other reason) between the transmitter and SWR meter (say a
switch
> >or filter), the meter can show a low value if the antenna is ok, but the
> transmitter will see a high SWR and may burn out the finals.
>
> He did not say he inserted anything, just that moisture at the end of his
> transmission line caused a fault. If this was the case, an SWR bridge at
the

The install was : RTX +50 cm RG58 + AMP + 1m Aircom (like RG213) + SWR +15m
Aircom + G5RV

the built-in SWR of my RTX TS-570D read SWR 1:1. If my external SWR
displayed an SWR > 4 that means that it read the info AFTER it, what looks
in contradiction with what ARRL website states in his technical columns...
Who's right ?

Thierry
ON4SKY
http://www.astrosurf.com/lombry/

> output of his Power Amps should have alerted him to a problem that would
> potentially destroyed them.
> If you want to use an SWR bridge as a protective device, or indicator,
it
> must be placed in the proper position in the antenna system. Modern
> transceivers have circuits that detect mismatches and reduce power to
minimize
> failed output devices.
>
>
> 73 Gary N4AST

912. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:48:04 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400c5ea9$1_2@news.vo.lu>
Source record: 101584
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"ary" <send.mail@dev.null.net> wrote in message
news:pan.2004.01.19.17.46.17.807190@dev.null.net...
> Vaughn,
>
> It's quite easy: your best bet is the maximum length of wire you can keep
> in your backyard AND as high up in the air as you can afford (trees,
> towers, chimneys etc.)
>
> To prevent RFI and TVI, make your antenna symmetrical. Feed it with an
> open line, and connect the open line with your TX with an appropriate
> coupler (the ARRL Handbook is a good source for information).

Hi,

All depends. I already underligned 2 big mistakes about SWR and ground
screen.
All is relative you know

>
> Please note you do not need to use a thick gauge of copper wire. Even a
> thin gauge of stainless steel wire will do.

I call this a G5RV... ;-)

Thierry
ON4SKY
http://www.astrosurf.com/lombry/qsl-g5rv.htm

>
> You will be pleased very much by the results !!
>
> 73 de PA0ARY
>
> On Sat, 03 Jan 2004 18:38:59 +0000, Vaughn Combs wrote:
>
> > I have a few questions and I thought that this may be the group that
could
> > help. I have a nice sized backyard and would like to construct an
antenna
> > that would give me good performance on 80-10m bands.
> >
> > The convenient dimensions would put a support (far end) at either 92
feet
> > from the back of the house (support exists that is about 15-20 feet up)
or

> > 120 feet from the back of the house (mast anchored to the other side of
a
> > shed could easily be installed. Or a more inconvenient support could be
> > erected up to 300 feet out (no support buildings) at the absolute far
end of
> > the property. The width of the property as seen looking out the back
window
> > is about 65 feet (no supports existing on either side).
> >
> > Special circumstances and constraints:
> >
> > -- No tall trees on the property.
> >
> > -- Attic shack (attic window is probably about 25 feet up). Need to keep
to
> > the attic.
> >
> > -- Cable run from back of house to operating position within the attic
would
> > be approximately 25 feet
> >
> > -- MUST eliminate RFI in the shack and house.
> >
> > My current setup is an end-fed longwire that works well on all bands
except
> > 40m (rig shuts down as I am dipping the SWR to almost 1:1 ;-). I threw
up
> > the wire as winter was upon me. I have been off the air for almost 10
years
> > and REALLY wanted to get on the air again.
> >
> > While the longwire is performing quite well with the exception of 40m I
am
> > getting a ton of RF in the shack and it is blanking out TVs and creating
> > loud humming in speakers with 100W from the XMTR. I realize that this is
> > most likely due to the fact that I have inefficient RF ground and I have
cut
> > and run radial at 1/4 wave for each band and ran them under the eaves up
> > here in the attic. This has not solved the problem. I am friendly with
all
> > of my neighbors and have visited them and did testing on the bands with
them
> > on the phone. They are not experiencing any problems. My wife, while
> > understanding, would REALLY like the problem to go away ;-)
> >
> > My main goal is to build an antenna that will solve the aforementioned
RFI
> > problem and that will provide good performance given my constraints.
> >
> > Any ideas would be GREATLY appreciated.

> >
> > Many Thanks and 73,
> > Vaughn
> > N2BHA
>

913. Re: Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:48:15 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <buhmuoaln1@newshost.mot.com>
Source record: 101588

I should have added that the part about "very narrow pattern" implies "very
big antenna". Pattern is dependent on antenna size. The narrower the
pattern, the bigger antenna required to get the proper phase relationships
to form the pattern.
Steve

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:buhhm9$304$1@newshost.mot.com...
> Single frequency repeaters have been used, but the wide bandwidth here can
> be a problem. In some situations two antennas is all that is needed -
> probably not here, but inside a car, for example. The next step is just
two
> antennas with amplification. I have used this in a conference room for
> analog cellular - two tuplexers and two amplifiers for the Tx & Rx bands.
>
> Using gain antennas back to back (high FB) and controlled gain in the
> repeater, it has be done at VHF FM. If the destination can possibly hear
> both the original and repeated signals, then it also needs to be
coherent -
> that is:... receive - mix down, amplify, mix back up to freq.
> The poster should provide more information on just what is desired.
There
> are things called "community Repeaters" which have been used for towns in
a
> valley to receive TV & FM broadcase.
>
> --
> Steve N, K,9;d, c. i My email has no u's.

914. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 22:58:15 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <buhnhfbgj1@newshost.mot.com>
Source record: 101591

Nice numbers, Adam. I'm only interesetd in the Hustler. Are these all
with very small reactance?--That is, insignificant relative to the real
part?

I haven't measured yet, but this says that on 40 we have a 2 : 1 SWR and on
80 it is about 2.4 : 1...?

Please indicate how you got these numbers.

What vehicle ?
Where is the antenna mounted ?
What type of antenna mount ?
How is the feed line shield connected to the vehicle ? (I put a jumper from
the mount "ground" to the trunk lid to get rid of 20M flakies.)
How did you measure them -- assuming they are measured...?
--
Steve N, K,9;d, c. i My email has no u's.

"H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
news:100ojmpq4rnnhcb@corp.supernews.com...
> QST
> It's been a while since I posted all that bazooka data that made me stick
to
> dipoles, so here goes:
> I've been using Hustlers mobile for almost 40 years and find them
adequate;
> The mast I bought in 1970 only recently failed.
> I'm reworking my HF mobile installation around a TS-480HX and decided to
> graduate to a screwdriver. I bought a Tarheel 200.
> I prefer to operate a mobile antenna at it's resonant frequency and match
to
> the impedance of the transmission line with a transformer.
> So here I present the resonant feedpoint impedances of a Hustler (small
> resonators), the Tarheel 200 screwdriver and a 103" whip on a bug catcher
on
> a 54" Hustler base. All antennas on the same ball mount. Measurements by
> MFJ. "Resonant" implies X=0.
>
> band Hustler Screwdriver 103"/BugCatcher/54"
> 80 21 ohms 9 ohms 23 ohms
> 40 25 11 na
> 20 30 30
> 10 40 32
>
> I really thought the huge bug catcher would do better.

> The screwdriver shows encouraging results for signal improvement over the
> others on 80 and 40.
> Seems the diameter of that bottom conductor on the screwdriver makes a big
> difference at the lower frequencies.
> Since the TS-480HX has two antenna jacks, I think an additional small
> screwdriver is in order; One for 80-20; One for 20-6.
> 73
> H.
> NQ5H
>
>

915. Re: How to make phasing line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 23:01:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400c6294_6@corp.newsgroups.com>
Source record: 101586

J Koli wrote:
> Hw can I construct 110 deg phasing line for 3.8mhz? 450 ohm window type
> ladder line preferred.
>
> This is for 2 dipoles each 121' long and 70' apart. Height above avg
> ground 60'. I would like to feed 1 dipole 110 deg out of phase of the
> other..

You need more than just a 110 degree phasing line if you want the
currents in each dipole to be equal, which is usually the case.
W7EL has information on such in the ARRL Antenna Compendium Vol. 2,
"The Simplest Phased Array Feed System...That Works" Roy might also
have some associated information on his web page at www.eznec.com

If you have EZNEC and use two sources, you will see that those two
feedpoint impedances are widely different so it is no simple matter
to balance the two currents using one feed system.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

916. Re: Mechanically designed FM/VHF (87.5-108Mhz) Omidirectional antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 23:02:42 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <buhnl3$hihc8$1@ID-150848.news.uni-berlin.de>
Source record: 101585

Reg Edwards wrote:
> An approximate 1/2 wave dipole bent into the form of a circle is not an
> omnidirectional antenna. But it is good enough not to make a lot of
> difference.
>
> It behaves as a magloop with the tuning capacitor set to zero and is
> therefore not easily tuneable.
>
> It has a fairly high Q and therefore a narrow bandwidth appreciable
> smaller than a 1/2-wave dipole, and the feedpoint impedance is
> appreciably lower than the normal 70-ohms.
>
> The narrow bandwidth make a mess of the required wide bandwith of 87.5-108
> MHz. This is the main disadvantage compared with a straight 1/2-wave
> dipole.
>
> The impedance mismatch is high at the band edges of 87.5 and 108 MHz. But
> this applies whatever type of antenna(s) is involved.

The antenna I was talking about is here:

http://www.towerhillaerials.com/viewProd.phtml?ref=52&orderNumber=0

As far as I know this design is the only commercially available
omnidirectional FM antenna for your general public.

> Unless you want to go to 90-degree phased crossed dipoles your simple
> circular loop will be as good as anything.

I think turnstile might be better than the "halo".

> Or, ideally, you could switch between two well-spaced antennas, orientated
> at 90-degrees, each with its own feedline to the receiver.

I don't think that one can buy just a folded dipole for FM. Sure for
broadcasaters (big bucks) but not aimed at your general public. Would like
to see me proved wrong though. :c)

> The other omni-directional antennas you mention are vertically polarised
> and are not suitable for reception of FM broadcasting stations.

I'm not sure what you say is true. I've been led to beleive that most UK FM
stations are vertical or slant. That ubiquitous "halo" you see, is always
mounted horizontally though. Perhaps wrongly.

917. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 23:05:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400c6366$1_6@corp.newsgroups.com>
Source record: 101589

Reg Edwards wrote:

>>I wonder why most commercial finals are protected from a high SWR
>>by foldback circuitry to avoid damage to the finals?
>
> They don't. There isn't an SWR meter on the station.

Reg, I'm talking about commercially manufactured ham radio
finals. Virtually every single one of them has protection
circuitry and virtually every one of them has a built-in
SWR metering system.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

918. Re: How to make phasing line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 23:07:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400c63e0$1_6@corp.newsgroups.com>
Source record: 101590

Dave Shrader wrote:

> J Koli wrote:
>
>> Hw can I construct 110 deg phasing line for 3.8mhz? 450 ohm window type
>> ladder line preferred.
>>
>> This is for 2 dipoles each 121' long and 70' apart. Height above avg
>> ground 60'. I would like to feed 1 dipole 110 deg out of phase of the
>> other..
>>
>> Jay NE2Q
>
>
> 110/360 = 0.305 wavelength
> 0.305 wavelength * 0.95 velocity factor = 0.2897 wavelength in ladder line.
>
> 300,000,000 meters/ 1800000 Hz = 166.67 meters free space wavelength.
>
> 166.67 * 39.37 / 12 = 546.8 feet.
>
> So, 0.2897 * 546.8 = 155.48 > ~ 158.4 feet.

But please note that doesn't balance the currents except by
sheer accident. I'll bet he wants balanced currents.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

919. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 23:12:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400c651c$1_6@corp.newsgroups.com>
Source record: 101592

Thierry wrote:
> the built-in SWR of my RTX TS-570D read SWR 1:1. If my external SWR
> displayed an SWR > 4 that means that it read the info AFTER it, what looks
> in contradiction with what ARRL website states in his technical columns...
> Who's right ?

The SWR between the transmitter and the antenna tuner is usually adjusted for
1:1. The antenna tuner doesn't affect the SWR between the antenna tuner and the
antenna. It can be almost any value. Nothing strange at all about a 4:1 SWR
after the antenna tuner.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

920. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 23:19:37 UTC
From: jgboyles@aol.com
Message-ID: <20040119181937.28383.00000326@mb-m01.aol.com>
Source record: 101594

>The install was : RTX +50 cm RG58 + AMP + 1m Aircom (like RG213) + SWR +15m
Aircom + G5RV. the built-in SWR of my RTX TS-570D read SWR 1:1. If my external
SWR
>displayed an SWR > 4 that means that it read the info AFTER it, what looks
>in contradiction with what ARRL

Thierry, If your external SWR meter is after the amplifier, in a 50 ohm
system, and it read >4 it could possibly destroy your amplifier output devices.
The fact that the built-in SWR meter in the Kenwood read 1:1 only means the
input match to the Amplifier was good. If the 570 has a built-in tuner, it
will try to get a 1:1 match, no matter what is downstream. It doesn't mean the
output the Amp sees is good.
As for the ARRL, I haven't had the time to look, but I hope they are not
stating that a 50 ohm output Amp operating into >4 mismatch is a good thing.

73 Gary N4AST

921. Re: Why do we use thin antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 23:19:38 UTC
From: Leigh <news_nospam@leighs.org>
Message-ID: <Xns9475ECDF2CB77newsleighsorg@130.133.1.4>
Source record: 101593

n1jpr@hotmail.com (SpamLover) wrote in news:95a201e0.0401191122.68b4b2e0
@posting.google.com:

> Purdon my deep egnorance, but, why do we tend to use thin conductors
> for antennas?

Weight?

Wind loading?

Fancy taking half a ton of iron onto a roof or up a mast do you?

;-)

Leigh....

922. Re: Mechanically designed FM/VHF (87.5-108Mhz) Omidirectional antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 23:44:19 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <buhq3h$i8bbl$1@ID-150848.news.uni-berlin.de>
Source record: 101595

Richard wrote:
> Reg Edwards wrote:
>> The other omni-directional antennas you mention are vertically polarised
>> and are not suitable for reception of FM broadcasting stations.
>
> I'm not sure what you say is true. I've been led to beleive that most UK
> FM stations are vertical or slant. That ubiquitous "halo" you see, is
> always mounted horizontally though. Perhaps wrongly.

http://www.bbc.co.uk/reception/radio_transmitters/lr_al.shtml#humbs

Mostly mixed polarization.

So, I suppose use a vertical or horizontally polarized antenna, no
difference. Preferably vertical to cater for the odd vertically polarized
station.

923. Re: How to make phasing line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-19 23:59:53 UTC
From: Alexander Schewelew <dl1pbd@gmx.de>
Message-ID: <buhr09$hf9vu$1@ID-34767.news.uni-berlin.de>
Source record: 101596

"Dave Shrader" <david.shrader@comcast.net> schrieb im Newsbeitrag
news:VLXOb.100682$8H.147484@attbi_s03...
> J Koli wrote:
> > Hw can I construct 110 deg phasing line for 3.8mhz? 450 ohm window type
> > ladder line preferred.
> >
> > This is for 2 dipoles each 121' long and 70' apart. Height above avg
> > ground 60'. I would like to feed 1 dipole 110 deg out of phase of the
> > other..
> >
> > Jay NE2Q
>
> 110/360 = 0.305 wavelength
> 0.305 wavelength * 0.95 velocity factor = 0.2897 wavelength in ladder
line.
>
> 300,000,000 meters/ 1800000 Hz = 166.67 meters free space wavelength.
>
> 166.67 * 39.37 / 12 = 546.8 feet.
>
> So, 0.2897 * 546.8 = 155.48 > ~ 158.4 feet.
>

Not correct!

E1= 1V Z1= 38 - j24.9 Ohm
E2=1v Fi =110deg Z2=9.6 - j 58.2 Ohm

Line Win 450 Vf=0.91 Length= 33.49m = 109.88 feet
Zin = 16.2 + j48.2 ohm

Better: RG 58u/c Length = 21.53m = 70.64 feet
Zin = 20.2 + j 17.5 ohm

or Belden 9258(RG 8x) Vf=0.82 Length=27m= 88.58 feet
Zin = 18.9 + j 17.6 ohm

But, what for is this antenna?

73! Alexander, DL1PBD

924. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 00:06:47 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <ri_Ob.101568$8H.152471@attbi_s03>
Source record: 101597

The TS 570D is driving the amplifier which shows an excellent load for the TS 570D!!

The amplifier is driving a different load with a 4:1 VSWR. This is a 36% reflection of the power. If your Amplifier is vacuum tube with tuning controls it is not a serious condition. You can vary the loading controls for reasonable output without damage. If your amplifier is solid state then you have to do something to correct the VSWR because it presents a load to the amplifier that is outside the designed load range.

Deacon Dave, W1MCE

925. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 00:17:03 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <3s_Ob.102132$xy6.193045@attbi_s02>
Source record: 101598

Cecil Moore wrote:

> Reg Edwards wrote:
>
>>> I wonder why most commercial finals are protected from a high SWR
>>> by foldback circuitry to avoid damage to the finals?
>>
>>
>> They don't. There isn't an SWR meter on the station.
>
>
> Reg, I'm talking about commercially manufactured ham radio
> finals. Virtually every single one of them has protection
> circuitry and virtually every one of them has a built-in
> SWR metering system.

I'll stand to be corrected because my RF design activity, C-Band and S-Band satellite circuits, ended in the mid 80s. Back then, an antenna load outside of the design range causes higher emitter currents in the bi-polar solid state devices. These higher currents are the damage producers. So, circuits were added to control the maximum emitter current. Today's semiconductor technology is different but I still suspect that localized voltage or current stresses are a function of the load.

We used to design for a plasma enhanced environment with an intrinsic Zo range between 120 to 377 ohms, or, slightly more than 3:1 VSWR at the antenna. BTW, the circuits continued to operate at almost 10:1 VSWR!!

926. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 00:37:34 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <100ou2ubnn9076b@corp.supernews.com>
Source record: 101599

rite this down, "sync rate/refresh rate/scan rate/any other combinations
of words that means the same thing". Now stop this nonscense. Lets
start a new thread, "did I spell non-scense rite ?" New thread idea,
" do the quote marks come inside or outside the question mark"?"

Butch KF5DE

Bill Turner wrote:
> On Sat, 17 Jan 2004 19:47:49 -0000, "Robin" <me@here.com> wrote:
>
>
>>Computer CRT's also have phosphor persistence
>
>
> ----------
>
> I never said computer CRT's don't *have* persistence, I said that they
> are not limited by the 60Hz requirement of TVs.
>
> All CRT phosphors, whether for TV, computer or oscilloscope, have *some*
> degree of persistence. Hopefully the manufacturer has matched the
> persistence to the use.
>
> --
> Bill, W6WRT
>

927. Technical question for receiving TV signals by a loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 01:14:28 UTC
From: David Kao <dvk@stanford.edu>
Message-ID: <buhvds$o46$1@news.Stanford.EDU>
Source record: 101600

My friend and I were trying to adjust the loop Antenna and watch TV on the computer. But the signal is really bad. I just wonder if there are any tips of receiving better signals.

Also, we "discovered" a weird situation -- when we touch the ring with the hand, the signal becomes clearer, without changing the orientation of the ring! I just wonder if this is due to some grounding or something.

Answers on either the tips or the physical explanation of the hand-touching-effect would be appreciated.

dvk@stanford.edu

Thanks!

928. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 02:19:42 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <100p4217k2d6a9b@corp.supernews.com>
Source record: 101601

Establish a procedure by which a professional installer places all antennas on the roof. Failure to use the approved installer can result in the homeowner paying for replacement of everything.

Dave N

PatW wrote:
> Interesting discussion. As a the former treasurer of a large
> complex(250 units), I was the chair of the roofing committee. The
> roofs were all failing on 30 buildings and an inspector was hired to
> review them. The junk that was attached to the roofs was one of the
> major problems. Cables penetrating the surface etc.
> In one case, a TV antenna was screwed right into the roof. When it
> comes to common property like that, the association cannot allow
> individuals to attach their own private stuff wherever they want.
> So, homeowners can put up a TV antenna, but the association has to
> protect the roofs, at a minimum, from damage.
> I don't know how you can accomplish both.
> Pat W

929. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 02:31:29 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400c9306$1_1@news.vo.lu>
Source record: 101602

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040119181937.28383.00000326@mb-m01.aol.com...
> >The install was : RTX +50 cm RG58 + AMP + 1m Aircom (like RG213) + SWR
+15m
> Aircom + G5RV. the built-in SWR of my RTX TS-570D read SWR 1:1. If my
external
> SWR
> >displayed an SWR > 4 that means that it read the info AFTER it, what
looks
> >in contradiction with what ARRL
>
> Thierry, If your external SWR meter is after the amplifier, in a 50 ohm
> system, and it read >4 it could possibly destroy your amplifier output
devices.
> The fact that the built-in SWR meter in the Kenwood read 1:1 only means
the
> input match to the Amplifier was good. If the 570 has a built-in tuner,
it
> will try to get a 1:1 match, no matter what is downstream. It doesn't mean
the
> output the Amp sees is good.
> As for the ARRL, I haven't had the time to look, but I hope they are not
> stating that a 50 ohm output Amp operating into >4 mismatch is a good
thing.

No no, they only tell that a SWR-meter place this way read the SWR "between
itself and the RTX"...
I am not agree with this sentence... as my SWR 4:1 was well read AFTER it,
thus between itself as they state and the antenna rather !

Thierry

>
> 73 Gary N4AST

930. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 02:33:26 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400c937b$1_2@news.vo.lu>
Source record: 101603

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:ri_Ob.101568$8H.152471@attbi_s03...
> The TS 570D is driving the amplifier which shows an excellent load for
> the TS 570D!!
>
> The amplifier is driving a different load with a 4:1 VSWR. This is a 36%
> reflection of the power. If your Amplifier is vacuum tube with tuning
> controls it is not a serious condition. You can vary the loading
> controls for reasonable output without damage.

Hi,

Correct. This is well what I did, rotating the amplifier load knob (a
kenwood TL922) to reduce the SWR as I could not reduce it another way
(antenna side) due to my defect balun.

73
Thierry

If your amplifier is
> solid state then you have to do something to correct the VSWR because it
> presents a load to the amplifier that is outside the designed load range.
>
> Deacon Dave, W1MCE
>
>

931. source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 03:00:05 UTC
From: chris-google@pobox.com
Message-ID: <ba42132e.0401191900.13158d8@posting.google.com>
Source record: 101604
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

I'm trying to get a radio clock to sync up with WWVB (60 kHz out of Colorado). In the place that I want to place the clock, I can not get it to sync, even at night when the signal is stronger.

Inside the clock is a small ferrite-core loopstick antenna. I figured out which way the gain pattern pointed on the thing (i.e. not along the axis of the ferrite rod) and tried positioning the clock for maximum signal, but no luck.

So now I'd like to try a better antenna. I won't have the time to make one myself, and I'd probably do it badly anyway. It seems that I should be able to buy an antenna for this fairly cheaply (thank you to my capitalist exploiter overlords!), but I can't find one. Ideally, one designed for WWVB's 60 kHz would be great, but I'll settle for anything really, as long as it claims to have some decent gain at 60 kHz.

This clock is going inside a building, inside two layers of cinder block / concrete walls, so it's possible that I just won't be able to get a signal in there no matter what I use. The external-antenna-and-a-wire-run concept is the next step, but I'd rather not to that unless I have to. We're moving out of that facility in a few months so that would be wasted labor.

What are some sources for loopstick antennas?

On another note, in searching this forum, someone said:

An LF loopstick antenna wound on a 1/2 inch diameter rod is *much* less efficient than a 1-meter square air loop

Assuming I have the space, am I better off trying this with a few big loops of wire instead of a small ferrite loopstick? What are the rules of thumb for comparing the two types of loop antennas?

Thanks!

932. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 03:43:10 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <100p92gftt2r4c6@corp.supernews.com>
Source record: 101605

Hi Steve

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:buhnhfbgj1@newshost.mot.com...
> Nice numbers, Adam. I'm only interesetd in the Hustler. Are these all
> with very small reactance?--That is, insignificant relative to the real
> part?
>
> I haven't measured yet, but this says that on 40 we have a 2 : 1 SWR and
on
> 80 it is about 2.4 : 1...?
>
> Please indicate how you got these numbers.
>
> What vehicle ?
Dodge Durango

> Where is the antenna mounted ?
Ball mount on the right rear where you can get at the back from in the car.

> What type of antenna mount ?
ball

> How is the feed line shield connected to the vehicle ? (I put a jumper
from
> the mount "ground" to the trunk lid to get rid of 20M flakies.)
Coax connector of the ball mount and 2" copper strap. Feed is less than 1
foot.

> How did you measure them -- assuming they are measured...?

MFJ analyzer measured R at resonance (reactance is zero)
I then use a toroidal autoformer to get 50 ohms.
73
H.
NQ5H

> --
> Steve N, K,9;d, c. i My email has no u's.
>
> "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
> news:100ojmpq4rnnhcb@corp.supernews.com...
> > QST
> > It's been a while since I posted all that bazooka data that made me
stick
> to

> > dipoles, so here goes:
> > I've been using Hustlers mobile for almost 40 years and find them
> adequate;
> > The mast I bought in 1970 only recently failed.
> > I'm reworking my HF mobile installation around a TS-480HX and decided to
> > graduate to a screwdriver. I bought a Tarheel 200.
> > I prefer to operate a mobile antenna at it's resonant frequency and
match
> to
> > the impedance of the transmission line with a transformer.
> > So here I present the resonant feedpoint impedances of a Hustler (small
> > resonators), the Tarheel 200 screwdriver and a 103" whip on a bug
catcher
> on
> > a 54" Hustler base. All antennas on the same ball mount. Measurements by
> > MFJ. "Resonant" implies X=0.
> >
> > band Hustler Screwdriver 103"/BugCatcher/54"
> > 80 21 ohms 9 ohms 23 ohms
> > 40 25 11 na
> > 20 30 30
> > 10 40 32
> >
> > I really thought the huge bug catcher would do better.
> > The screwdriver shows encouraging results for signal improvement over
the
> > others on 80 and 40.
> > Seems the diameter of that bottom conductor on the screwdriver makes a
big
> > difference at the lower frequencies.
> > Since the TS-480HX has two antenna jacks, I think an additional small
> > screwdriver is in order; One for 80-20; One for 20-6.
> > 73
> > H.
> > NQ5H
> >
> >
>
>

933. Re: Mobile Ant L match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 04:08:06 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <JQ1Pb.4799$ZJ1.2678@lakeread01>
Source record: 101606

You're making my head hurt but I think I am beginning to see the light.

--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64
"Bill Turner" <noway@nohow.com> wrote in message
news:984o005v8s7i2g3bi9uamfvs48eh7d3dl0@4ax.com...
> On Sun, 18 Jan 2004 22:55:27 -0500, "Craig Buck" <k4ia@cox.net> wrote:
>
> >I am baffled too., If the antenna is too short and therefore exhibits
> >capacitive reactance, why isn't the adding a coil (inductive reactance)
> >enough to balance it out? I guess I don't understand matching networks
at
> >all. If the antenna is too capacitive or to inductive add the opposite
to
> >get to zero. Seems like you add one or the other but not both to get a
> >match.
>
> ----------
>
> You guys are making this way too complicated.
>
> First, get an ARRL handbook and learn about L-matching networks
> (entirely apart from antennas).
>
> Then, picture your HF mobile antenna with no matching network, but tuned
> to resonance. The feed point resistance will be typically 10-40 ohms or
> so. Pure resistance, no reactance.
>
> Now picture that same antenna with an L-network to raise the feedpoint
> resistance to 50 ohms. Still pure resistance, no reactance.
>
> Now, (here's the clever part) detune the antenna so it appears to have a
> small amount of capacitance or inductance in series with it. This
> becomes one of the two elements of the previous L-network. All you have
> to do is add the other element of the L-network and connect the coax to
> the junction of the other element and the base of the antenna.
>
> Presto, it's matched! Make sense now?
>
> --
> Bill, W6WRT

>

934. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 04:11:34 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <ZT1Pb.4811$ZJ1.4783@lakeread01>
Source record: 101607

Doesn't; the Screwdriver's low feedpoint impendence mean it will be less
efficient not more?
--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64
"H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
news:100ojmpq4rnnhcb@corp.supernews.com...
> QST
> It's been a while since I posted all that bazooka data that made me stick
to
> dipoles, so here goes:
> I've been using Hustlers mobile for almost 40 years and find them
adequate;
> The mast I bought in 1970 only recently failed.
> I'm reworking my HF mobile installation around a TS-480HX and decided to
> graduate to a screwdriver. I bought a Tarheel 200.
> I prefer to operate a mobile antenna at it's resonant frequency and match
to
> the impedance of the transmission line with a transformer.
> So here I present the resonant feedpoint impedances of a Hustler (small
> resonators), the Tarheel 200 screwdriver and a 103" whip on a bug catcher
on
> a 54" Hustler base. All antennas on the same ball mount. Measurements by
> MFJ. "Resonant" implies X=0.
>
> band Hustler Screwdriver 103"/BugCatcher/54"
> 80 21 ohms 9 ohms 23 ohms
> 40 25 11 na
> 20 30 30
> 10 40 32
>
> I really thought the huge bug catcher would do better.
> The screwdriver shows encouraging results for signal improvement over the
> others on 80 and 40.
> Seems the diameter of that bottom conductor on the screwdriver makes a big
> difference at the lower frequencies.
> Since the TS-480HX has two antenna jacks, I think an additional small
> screwdriver is in order; One for 80-20; One for 20-6.
> 73
> H.
> NQ5H
>

>

935. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 04:25:28 UTC
From: "H. Adam Stevens" <hstevens@totalaccessNOSPAM.net>
Message-ID: <100pbhorbj6lb9e@corp.supernews.com>
Source record: 101608

No
It means there is less loss resistance.
The radiation resistance on 80 and 40 of all these short antennas is tiny, a very few ohms.
At resonance the measured resistance is the sum of radiation and loss resistance.
Matching the impedance at resonance results in the greatest measured field strength, at least in my front pasture;
So making the antenna resonant, then matching the impedance, is my preferred approach.
Using reactances to do that is the same as the bazooka antenna: storing energy in tank circuits; A lossy enterprise.
Funny thing about this stuff, I built my first crystal set in 1956, my first transmitter in 1961 and I'm not bored yet.
73
H.
NQ5H

"Craig Buck" <k4ia@cox.net> wrote in message
news:ZT1Pb.4811$ZJ1.4783@lakeread01...
> Doesn't; the Screwdriver's low feedpoint impendence mean it will be less
> efficient not more?
> --
> Radio K4ia
> Craig "Buck"
> Fredericksburg, VA USA
> FISTS 6702 cc 788 Diamond 64
> "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
> news:100ojmpq4rnnhcb@corp.supernews.com...
> > QST
> > It's been a while since I posted all that bazooka data that made me stick
> to
> > dipoles, so here goes:
> > I've been using Hustlers mobile for almost 40 years and find them
> adequate;
> > The mast I bought in 1970 only recently failed.
> > I'm reworking my HF mobile installation around a TS-480HX and decided to
> > graduate to a screwdriver. I bought a Tarheel 200.
> > I prefer to operate a mobile antenna at it's resonant frequency and match
> to
> > the impedance of the transmission line with a transformer.
> > So here I present the resonant feedpoint impedances of a Hustler (small

> > resonators), the Tarheel 200 screwdriver and a 103" whip on a bug
catcher
> on
> > a 54" Hustler base. All antennas on the same ball mount. Measurements by
> > MFJ. "Resonant" implies X=0.
> >
> > band Hustler Screwdriver 103"/BugCatcher/54"
> > 80 21 ohms 9 ohms 23 ohms
> > 40 25 11 na
> > 20 30 30
> > 10 40 32
> >
> > I really thought the huge bug catcher would do better.
> > The screwdriver shows encouraging results for signal improvement over
the
> > others on 80 and 40.
> > Seems the diameter of that bottom conductor on the screwdriver makes a
big
> > difference at the lower frequencies.
> > Since the TS-480HX has two antenna jacks, I think an additional small
> > screwdriver is in order; One for 80-20; One for 20-6.
> > 73
> > H.
> > NQ5H
> >
> >
>
>

936. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 05:20:20 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <CecPb.6788$ZJ1.2297@lakeread01>
Source record: 101531

I was talking about radiation efficiency taking into account the ground losses. The ARRL Antenna Book equation is Efficiency = Radiation Resistance divided by the sum of Radiation Resistance + Ground loss + Coil loss. Plug in a 6 ohm ground loss and whatever you want to assume for the coil loss. The higher the radiation resistance the higher the efficiency. No?
--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64
"H. Adam Stevens" <hstevens@totalaccessNOSPAM.net> wrote in message news:100pbhorbj6lb9e@corp.supernews.com...
> No
> It means there is less loss resistance.
> The radiation resistance on 80 and 40 of all these short antennas is tiny, a
> very few ohms.
> At resonance the measured resistance is the sum of radiation and loss
> resistance.
> Matching the impedance at resonance results in the greatest measured field
> strength, at least in my front pasture;
> So making the antenna resonant, then matching the impedance, is my preferred
> approach.
> Using reactances to do that is the same as the bazooka antenna: storing
> energy in tank circuits; A lossy enterprise.
> Funny thing about this stuff, I built my first crystal set in 1956, my first
> transmitter in 1961 and I'm not bored yet.
> 73
> H.
> NQ5H
>
> "Craig Buck" <k4ia@cox.net> wrote in message
> news:ZT1Pb.4811$ZJ1.4783@lakeread01...
> > Doesn't; the Screwdriver's low feedpoint impendence mean it will be less
> > efficient not more?
> > --
> > Radio K4ia
> > Craig "Buck"
> > Fredericksburg, VA USA
> > FISTS 6702 cc 788 Diamond 64
> > "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message

> > news:100ojmpq4rnnhcb@corp.supernews.com...
> > > QST
> > > It's been a while since I posted all that bazooka data that made me
> stick
> > to
> > > dipoles, so here goes:
> > > I've been using Hustlers mobile for almost 40 years and find them
> > adequate;
> > > The mast I bought in 1970 only recently failed.
> > > I'm reworking my HF mobile installation around a TS-480HX and decided
to
> > > graduate to a screwdriver. I bought a Tarheel 200.
> > > I prefer to operate a mobile antenna at it's resonant frequency and
> match
> > to
> > > the impedance of the transmission line with a transformer.
> > > So here I present the resonant feedpoint impedances of a Hustler
(small
> > > resonators), the Tarheel 200 screwdriver and a 103" whip on a bug
> catcher
> > on
> > > a 54" Hustler base. All antennas on the same ball mount. Measurements
by
> > > MFJ. "Resonant" implies X=0.
> > >
> > > band Hustler Screwdriver 103"/BugCatcher/54"
> > > 80 21 ohms 9 ohms 23 ohms
> > > 40 25 11 na
> > > 20 30 30
> > > 10 40 32
> > >
> > > I really thought the huge bug catcher would do better.
> > > The screwdriver shows encouraging results for signal improvement over
> the
> > > others on 80 and 40.
> > > Seems the diameter of that bottom conductor on the screwdriver makes a
> big
> > > difference at the lower frequencies.
> > > Since the TS-480HX has two antenna jacks, I think an additional small
> > > screwdriver is in order; One for 80-20; One for 20-6.
> > > 73
> > > H.
> > > NQ5H
> > >
> > >
> >
> >
>
>

937. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 06:13:23 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0401192213.19ab7a71@posting.google.com>
Source record: 101609

radio913@aol.com (Dr. Slick) wrote in message
news:<1d15af91.0401182259.1a6585a1@posting.google.com>...

Ok, folks. Went to the local ham radio outlet, and
the dude said that the polyethelene foam RG-8 isn't very good in terms of
breakdown voltage, which is about 600 RMS, i believe.

However, RG-213 is solid polyethelene, with a BV of 3700 volts RMS.

So i went with the RG-213, and reduced the total turns to 4 (originally 6).

Hopefully this will not melt again.

Slick

938. Re: Smith Chart Plotter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 07:18:34 UTC
From: k7itm@aol.com
Message-ID: <3200347.0401192318.699a2a4@posting.google.com>
Source record: 101610
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Don't know about that particular instrument, but it might be
enlightening if you're not already aware, that the Smith chart is
simply a linear plot of the complex reflection coefficient, which is
pretty easy to get from an RF bridge. The chart overlays that linear
plot with the circular grid lines for resistance and reactance (and
conductance and admittance and various other things as desired).

Cheers,
Tom

"C Edgar" <ehunt@dslextreme.com> wrote in message
news:<100ldiqjunq8b7b@corp.supernews.com>...
> I'm trying to get some info on a Smith Chart Plotter made by Dielectric
> Products Engineering. It looks like an RF bridge with an input, load and 4
> bnc outputs for +/-X and +/-Y-axis. Would appreciate any info.

939. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 07:40:10 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0401192340.22c53af3@posting.google.com>
Source record: 101611
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Hi Chris,
try to make a rectangular coil, about 1 ft x 1 ft, some 30 turns wound by a fairly thin magnet wire (#25 to #30). Bring it into resonance at 60 kHz by a capacitor, some 8000 - 10000 pF. Place the coil vertically, aiming to the transmitter, and place the clock to its center. You do not need any mods of the clock. The signal should be significantly stronger.

BR from Ivan

chris-google@pobox.com (Chris Campbell) wrote in message news:<ba42132e.0401191900.13158d8@posting.google.com>...
> I'm trying to get a radio clock to sync up with WWVB (60 kHz out of
> Colorado). In the place that I want to place the clock, I can not get
> it to sync, even at night when the signal is stronger.
>
> Inside the clock is a small ferrite-core loopstick antenna. I figured
> out which way the gain pattern pointed on the thing (i.e. not along
> the axis of the ferrite rod) and tried positioning the clock for
> maximum signal, but no luck. ...

940. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 09:16:58 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401200116.2e5a73bc@posting.google.com>
Source record: 101612

"Thomas C. Sefranek" <WA1RHP@ARRL.NET> wrote in message
news:<ZvednUwjF884S5bd4p2dnA@comcast.com>...
> "Dr. Slick" <radio913@aol.com> wrote in message
> news:1d15af91.0401182259.1a6585a1@posting.google.com...
> > Hi,
> >
> > I built a Super J-Pole like this one:
> >
> > http://www.nemr.net/~aschmitz/antennas/jpolecalc.html
> >
> > For 300 watts, VHF frequencies. With i believe 6 turns of 4"
> > diameter
> > inductive loops in the coax (RG-213), just at the base of the antenna.
> >
> > Problem was, the antenna had an intermittant problem, which turned
> > out
> > to be the dielectric foam material MELTING right at the inductive
> > loops in
> > the coax. I tore off the outer jacket, and the foam was melting and
> > oozing
> > past the outer braid, really nasty...so that the inner conductor was
> > intermittantly touching the outer braid, most likely.
> >
> > A real hair-puller, because the super-J looked fine when i took it
> > down.
> >
> > Can i get away without using the inductive loops? They are
> > supposed to be there to prevent the current from going down the
> > outside braid, right? So
> > that you don't have radiation along the coax?
> >
> > Or perhaps i can make fewer turns, or larger diameter loops? So
> > that the
> > impedance discontinuity is less severe at this point?
> >
> > Knowledgable advice much appreciated.
> >
> >
> > Slick
>
> Why do you have this choke at the feed point?
>
> ASS-U-ME the feed is correctly adjusted for a perfect match to the feedline,
> what is to be gained by choking the feed line?

SWR and common modes currents are unrelated. You can have a perfect match, and still have excess current on the coax shield. The gain? No skewing of the pattern up off the horizon. MK

941. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 09:32:25 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401200132.6acba64@posting.google.com>
Source record: 101613

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:<buh5cunlm1@titan.btinternet.com>...
> How much radiation, in watts, usually occurs from feedlines?

Dunno in watts. But it's a lot if it's frying coax innerds.
Does it make
> much difference to anything?

Absolutely.

Is it worth worrying about?
Absolutely.
>
> If it works don't fix it.

It's not working near it's potential. So it needs fixing. MK

942. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 09:46:54 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401200146.70589add@posting.google.com>
Source record: 101614

"H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
news:<100ojmpq4rnnhcb@corp.supernews.com>...
> QST
> It's been a while since I posted all that bazooka data that made me stick to
> dipoles, so here goes:
> I've been using Hustlers mobile for almost 40 years and find them adequate;
> The mast I bought in 1970 only recently failed.
> I'm reworking my HF mobile installation around a TS-480HX and decided to
> graduate to a screwdriver. I bought a Tarheel 200.
> I prefer to operate a mobile antenna at it's resonant frequency and match to
> the impedance of the transmission line with a transformer.
> So here I present the resonant feedpoint impedances of a Hustler (small
> resonators), the Tarheel 200 screwdriver and a 103" whip on a bug catcher on
> a 54" Hustler base. All antennas on the same ball mount. Measurements by
> MFJ. "Resonant" implies X=0.
>
> band Hustler Screwdriver 103"/BugCatcher/54"
> 80 21 ohms 9 ohms 23 ohms
> 40 25 11 na
> 20 30 30
> 10 40 32
>
> I really thought the huge bug catcher would do better.

I'm not sure if I'm getting the problem. Is the bugcatcher failing to
perform?
I would *think* the bugcatcher would be the best of the bunch
regardless of the thickness of the lower mast. Which is the best on
the air? That bugcatcher *should* be kickin butt on 80m compared to
the others. "I'm assuming the screwdriver is shorter". At the least,
it should be equal to the screwdriver. Normally, I would think
better...

> The screwdriver shows encouraging results for signal improvement over the
> others on 80 and 40.

Even the bugcatcher? Thats weird...
> Seems the diameter of that bottom conductor on the screwdriver makes a big
> difference at the lower frequencies.

I don't really buy it though. Shouldn't make *that* much difference.
Something seems weird to me....Not sure what it is though...MK

943. Space Miser 80m - available again!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 10:37:03 UTC
From: ELLIS <prellis@pcug.org.au>
Message-ID: <newscache$qtasrh$ffn$1@tomato.pcug.org.au>
Source record: 101615

Dear all,

I have had permission from Roger Harrison VK2ZRH, the copyright holder of the 1987 article, to place a copy of the article describing the James Taylor W2OZH "Space Miser 80m" antenna on my web site.

http://www.pcug.org.au/~prellis/amateur/space-miser-80m.html

Enjoy this modest-sized 80m antenna well suited for city apartment living.

Peter
VK1KEP

944. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 11:31:25 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401200331.200b135d@posting.google.com>
Source record: 101616

" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:<bVUOb.100367$I06.445073@attbi_s01>...
> Mark
> Let me only respond to the technical things that you are mistaken on
> Radiators do have parts that are inefficient which you
> apparently do not accept.

No, I don't accept it. To me, you are misapplying terms. All radiators
are efficient unless they are so thin, or of a material as to have a
lot of excess resistance.
All radiators are equally capable of being efficient radiators AS LONG
as you can actually transfer power to them. Efficiency is a poor term
to use for a radiator quality. A half size dipole is just as capable
of being an efficient radiator as the full size dipole. Really no
less, or more so. The fun part is actually transfering the power from
the radio/feedline to the radiator in an efficient manner. The only
thing you are altering when you shorten an antenna element is the
pattern, and gain in a certain direction. And the change is not that
drastic. The pattern is still a fig 8, and the gain has dropped to
about 1.8 dbi, instead of appx 2.1 dbi. You do not alter efficiency
per say. The efficiency is the percentage of power lost in the
transfer of power to the radiator. Or you can gauge the efficiency of
the whole system as a whole. You do not gauge efficiency of radiating
elements, except as already stated.
BTW, if I'm wrong on any of this, anyone feel free to jump in and
correct...
I don't want to create any excess old wives either...

> Radiation is created by current. If current was uniform over a radiator
> length then the length of the radiator is reduced from 1/2 wave to
> wavelength over pi.
> This is because voltage becomes more dominant than current at the ends of a
> radiator.
> If you divide the current curve into uniform radiator length
> it should become clear to you that the area under the current curve per unit
> length diminishes as the curve moves to zero. This is fundermental but if
> you still have problems with this concept by all means continue a technical
> dialogue.

Dunno... I'm not really getting the point of all this...
>
> Loss less feed systems.
> This term is used quite a lot in academia. One can relate it to such things
> as household circuits where the radiation is so small it is not considered a
> factor in calculations.

> . A 'loss less' feed system in say an antenna would comprise of something
> short with respect to wave length and would be voltage dominated so that
> radiation is minimised by the low value of current.

I'd feel better if you dropped the "lossless" term, and changed it to
"low loss". Or maybe lower loss...
>
> Regarding efficiency of magnetic loops.
> It is clear in this case that we are dealing with a radiatior that is not
> only one tenth of a wavelength but also has an impedance dominated by
> resistive losses which means that the efficiency will be extremely low and
> possibly only a tenth of what you surmised.

Not sure...I don't bother with such antennas, but I was under the
impression the efficiency could be fairly decent with those if the
proper techniques were used in feeding them. I could have been
mistaken on the appx 70% number...

> There are ways to ensure that low impedance
> problems can be overcome, we see similar problems overcome
> in very high gain yagi's which tend to have low impedances as efficiency
> increases. This problem can be readily overcome in many cases by adding a
> second reflector where its proximity to the driven element
> reverses the decline in impedance.by adding a coupling effect.
> If I have forgotton something technical that you brought up please let me
> know.

I'm not sure if I really agree on this, but I'll leave this for now...
>
> Ah yes, the yagi syndrome.
> Yagi gain is based on boom length assuming other requirements are met. In
> the amateaur world boom length is not really a problem for half of the bands
> but it is a problem in that boom length and gain have a limit in scope
> as well usuitable for many bands. So I would expect that future enginners
> will move away from just yagi's and explore methods where direct coupling of
> radiators will occur to remove problems of fractional wavelength portions
> spacings as one sees with the yagi aproach. and explore other areas, where
> turning radius becomes prominent rather than boom length..

They have been, still do, and surely will continue...
MK

945. Re: 160 Meter noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 11:52:20 UTC
From: Floyd Sense <sentek@sprintmail.com>
Message-ID: <UD8Pb.16178$i4.7624@newsread1.news.atl.earthlink.net>
Source record: 101617

I'm located quite a way from any city noise sources, and all power lines in the area are underground. On my inverted L for 160, my noise level peaks at S1 on 160 and that's with the pre-amp on. I'd consider an S8 noise level intolerable! A K9AY loop might be worth trying, depending upon the source of your noise. It has a pretty good steerable null and will help if the noise is coming from one direction.

73, K8AC

"Metalhead" <burcha@tampabay.rr.com> wrote in message
news:5lon00hcerse1f029bc7d7gtqsb0e9doer@4ax.com...
> I have just recently put up a 160 meter inverted L antenna. I briefly
> had up a shortened inverted V which I had up for about 1 year. I know
> that 160 is a noisy band, but I am curious what kind of noise levels
> others normally get on 160. With the inverted V, I would get about a
> S7 noise level. On the inverted L, I get an S8 noise level (with the
> noise blanker on.) I understand that the vertical will pick up more
> man made noise and I do have my share of power line noise here on my
> small city lot. Is this typically normal or is this extremely noisy
> for 160? Just curious what kinds of noise levels others get. I am
> going eventually put up a small receiving loop for 160 meters in the
> future.
>
> Thanks for any input.
>
> Burch
> K4QXX
>

946. Re: Why do we use thin antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 11:53:50 UTC
From: n1jpr@hotmail.com
Message-ID: <95a201e0.0401200353.717b555@posting.google.com>
Source record: 101618

Thank you everyone!

>> 65 mph
We have enough problms with all those flying saucers annoying people from time to time. I promise I won't create more.

So, it seems that high capacitance is not a no-no for electrical reasons. If you look at naval radio masts, sometime you'll see manufacturers boasting of their "high capacitance" - like that double-drainpipe-thick-mast stainless steel monster that I guess won't cost less than $20k - but takes 40 kW, and won't stretch an automated ATU to seek an impossible match. (http://www.valcom-ottawa.com/Guelph/products/highfreq/oe415_photo.html et al.)

From a mechanical standpoint I'd have no problem putting up a 1ft. diameter wire "disk" or a similar structure. I have been experimenting with a bizarre material: MIG copperflashed steelwire. Dirt cheap, springy, solders extremely well, can be hand-shaped. It can be used to put together small, super-light, bouncy, 3-dimensional, lattice structures. Rusts like hell, but nothing that can't be dealt with using an ordinary nitric acid paint and laquer.

I had already planned to use that stuff in my next VHF discone, now I am tempted to use a high capacitance disk as pickup in a mobile broadband HF active antenna.

Is there some good soul here who can help me figure out the impedance I need to match?

I would like to interpose either a T + Pi network or a Chebyscheff between the antenna and a classic FET gate, to kill off RF below 3 MHz and above 30 MHz.

My first try would be either a 1 ft disk with 16 braced 1mm radials about 8" above a car roof, or a cone of the same dimensions pointing down into the amplifier case. Hmmm... that would be a structure similar to those monster HF broadband designs - just 50 times smaller!

947. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 11:55:57 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401200355.2ac348c@posting.google.com>
Source record: 101519

"Thierry" <To answer me in private use http://www.astrosurf.com/lombry/post.htm> wrote in message news:<400c5cd1$1_1@news.vo.lu>...
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:400c22bc_6@corp.newsgroups.com...
> > JDer8745 wrote:
> > > It's funny that this old wive's tale about the high SWR "burning out the
> > > finals" still exists. I guess it depends on what the meaning of "high"
> is.
> >
> > If high SWR and the attendant mismatch cannot burn out a final,
> > I wonder why most commercial finals are protected from a high SWR
> > by foldback circuitry to avoid damage to the finals?
>
> Indeed.
> I always hear and read that a high SWR can destroy the PA final of TX,
> cranck coils, etc.
>
> Thierry

I may be confused now after reading all the posts, but if you have a good SWR on the rig that is driving an amp, this is normal, even with a mismatch to the amp. The amp probably has a tuned input circuit. It's not going to change much if any, if the SWR to the amp goes high. Or I don't believe anyway...You should run a meter before the amp, on the antenna side, to also measure the SWR to the amp. The meter in the rig is just looking at the tuned input circuit of the amp. You need another one if you want to keep the amp happy. A solid state amp is much more critical than the tube amps as far as SWR. But I still prefer to keep a tube amp under 2 to 1, unless I lower the power level. But I've run 3:1 or worse many times with my henry 2K classic, and it never complained. As long as you are within the loading range of the amp, it's perfectly fine. I think the tubes do run a bit hotter if the SWR is excessive. Thats why I'll drop the power a bit. When I do run the amp, I almost always have a good match, IE: coax fed dipoles, yagis, etc... and I almost never use a tuner. I haven't actually run my amp in about 4 years. I have it dismantled, and have been too lazy to order new caps and out it back together. I really don't need it most of the time. It's handy if I want to brown the food in a certain area.
MK

948. Re: Antenna Loading Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 11:59:52 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <400D1A8A.BF7C92D7@uwe.ac.uk>
Source record: 101520

Art Unwin KB9MZ wrote:
>
> Andy there is an old saying " let the buyer beware"
> How much did you PAY Reg for using his software
> and did you get what you PAID for ?
> Cheers mate
> Art
>

That's exactly why I said 'Let the user beware' and not the buyer. I paid Reg nothing and got something worth less than that. I think a program like dipole3, which Reg proclaims to be accurate and useful, should do what it says on the tin, even if it is free. There is plenty of free software that is reliable and correct. There are plenty of free software authors who are prepared to explain how their stuff works and to correct malfunctions. Reg is not among them. I paid for EZNEC and got very good value for money. The free version of EZNEC is correct and accurate within its stated limits. I'm not complaining that Reg is trying to rip people off, he obviously isn't, just pointing out that not all his stuff does what he claims it does and that users should be aware of that.

vy 73

Andy, M1EBV

949. Re: 160 Meter noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 12:28:55 UTC
From: Metalhead <burcha@tampabay.rr.com>
Message-ID: <2j7q00tssr3cdj1as5o3c40s5374jk197g@4ax.com>
Source record: 101521

My problem is space. I live on a small 1/4 acre lot and can't get
much distance from a receiving loop and the inverted L (maybe about 30
feer or so at most.) My guess is that this is too close and will
alter my radiation pattern on the transmitting L. How far away should
the loop be from the L for this?

On Tue, 20 Jan 2004 11:52:20 GMT, "Floyd Sense"
<sentek@sprintmail.com> wrote:

>I'm located quite a way from any city noise sources, and all power lines in
>the area are underground. On my inverted L for 160, my noise level peaks at
>S1 on 160 and that's with the pre-amp on. I'd consider an S8 noise level
>intolerable! A K9AY loop might be worth trying, depending upon the source
>of your noise. It has a pretty good steerable null and will help if the
>noise is coming from one direction.
>
>73, K8AC
>
>"Metalhead" <burcha@tampabay.rr.com> wrote in message
>news:5lon00hcerse1f029bc7d7gtqsb0e9doer@4ax.com...
>> I have just recently put up a 160 meter inverted L antenna. I briefly
>> had up a shortened inverted V which I had up for about 1 year. I know
>> that 160 is a noisy band, but I am curious what kind of noise levels
>> others normally get on 160. With the inverted V, I would get about a
>> S7 noise level. On the inverted L, I get an S8 noise level (with the
>> noise blanker on.) I understand that the vertical will pick up more
>> man made noise and I do have my share of power line noise here on my
>> small city lot. Is this typically normal or is this extremely noisy
>> for 160? Just curious what kinds of noise levels others get. I am
>> going eventually put up a small receiving loop for 160 meters in the
>> future.
>>
>> Thanks for any input.
>>
>> Burch
>> K4QXX
>>
>

950. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 12:45:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buj7tu$js9$1@sparta.btinternet.com>
Source record: 101522
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

To design small, VLF to HF, multi-turn loop antennas, download program
RJELOOP3 in a few seconds and run immediately.

Sides of square, number of turns, spacing between turns, value of tuning
capacitor, and other data.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp

951. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 12:52:02 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400d2474$1_1@news.vo.lu>
Source record: 101523

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0401200355.2ac348c@posting.google.com...
> "Thierry" <To answer me in private use
http://www.astrosurf.com/lombry/post.htm> wrote in message
news:<400c5cd1$1_1@news.vo.lu>...
> > "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
>...
> >
> > Thierry
>
> I may be confused now after reading all the posts, but if you have a
> good SWR on the rig that is driving an amp, this is normal, even with
> a mismatch to the amp. The amp probably has a tuned input circuit.
> It's not going to change much if any, if the SWR to the amp goes high.
> Or I don't believe anyway...You should run a meter before the amp, on
> the antenna side, to also measure the SWR to the amp. The meter in the
> rig is just looking at the tuned input circuit of the amp. You need
> another one if you want to keep the amp happy.

Is this really necessary Mark ?
My config is TX (+built-in ant.tuner and SWR) + AMP + SWR + antenna.
The TX antenna tuner can match the load upo to 2.5:1 to get SWR 1:1 on its terminal, not further.
The AMP load/plate knob are tuned in the proper band in order to get the lowest SWR (read on the external one, place just after him)
The SWR, the exernal one placed between the amp and ant, read, in my opinion, the SWR towards the antenna, not toward the RTX conrrarily to what state ARRL in its Q&A column.
You speak of inserting another SWR between rtx and amp ? why for ? I do not understand its utility from the moment I can fine-tune the the amp with the SWR placed just after it, toward the antenna (in practice in adjusting the plate on the right band and then the load, in adjusting with accuracy this latter the SWR increases or descreases). It enough.

NB. at the time of my tests all worked fine, my amp gave all its 850W although much reduced due to high SWR >4 (I emitted about 300 W) and no one rig was damaged. Of course I never worked longtime this way but I did some SSB QSO (thus theoretically enough to burn something) and I had to tune my RTX to reduce the SWR the best I could. Of course I do never suggest to proceed this way to nobody but instead to find a solution to get the lowest SWR (say below 2:1 or even 1:1 if you antenna permits).

Thierry
ON4SKY
http://www.astrosurf.com/lombry

A solid state amp is
> much more critical than the tube amps as far as SWR. But I still
> prefer to keep a tube amp under 2 to 1, unless I lower the power
> level. But I've run 3:1 or worse many times with my henry 2K classic,
> and it never complained. As long as you are within the loading range
> of the amp, it's perfectly fine. I think the tubes do run a bit hotter
> if the SWR is excessive. Thats why I'll drop the power a bit. When I
> do run the amp, I almost always have a good match, IE: coax fed
> dipoles, yagis, etc... and I almost never use a tuner. I haven't
> actually run my amp in about 4 years. I have it dismantled, and have
> been too lazy to order new caps and out it back together. I really
> don't need it most of the time. It's handy if I want to brown the food
> in a certain area.
> MK

952. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 13:08:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buj98g$3of$1@titan.btinternet.com>
Source record: 101524

Cecil, why do you insist on deliberately missing the point?

There is NO SWR meter!

It is a misnomer.

It is a TLI.

This misrepresentation continues to confuse, mislead people trying to
understand what is really a very simple application of an antenna tuner.

In this application the phrase SWR should be banned from the dictionary.

Reg, G4FGQ

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

953. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 14:25:17 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <400d3d51_3@news1.prserv.net>
Source record: 101525

I played with the Hustler when it was introduced, and got the impression it was a loser 40 years ago. I now wonder if that lower mast is purposely lossy. Or maybe just accidentally lossy and they ran with it. Looks good on SWR meters which hams are infamous for. I would modify your observation about the diameter of the bottom section to: The RF impedance of the lower section really counts. How about trying either a copper braid or tube around the Hustler or a copper plated base section under the bug catcher and see what that measures.

--
Crazy George
Remove N O and S P A M imbedded in return address
"H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
news:100ojmpq4rnnhcb@corp.supernews.com...
> QST
> It's been a while since I posted all that bazooka data that made me stick
to
> dipoles, so here goes:
> I've been using Hustlers mobile for almost 40 years and find them
adequate;
> The mast I bought in 1970 only recently failed.
> I'm reworking my HF mobile installation around a TS-480HX and decided to
> graduate to a screwdriver. I bought a Tarheel 200.
> I prefer to operate a mobile antenna at it's resonant frequency and match
to
> the impedance of the transmission line with a transformer.
> So here I present the resonant feedpoint impedances of a Hustler (small
> resonators), the Tarheel 200 screwdriver and a 103" whip on a bug catcher
on
> a 54" Hustler base. All antennas on the same ball mount. Measurements by
> MFJ. "Resonant" implies X=0.
>
> band Hustler Screwdriver 103"/BugCatcher/54"
> 80 21 ohms 9 ohms 23 ohms
> 40 25 11 na
> 20 30 30
> 10 40 32
>
> I really thought the huge bug catcher would do better.
> The screwdriver shows encouraging results for signal improvement over the
> others on 80 and 40.
> Seems the diameter of that bottom conductor on the screwdriver makes a big
> difference at the lower frequencies.
> Since the TS-480HX has two antenna jacks, I think an additional small

> screwdriver is in order; One for 80-20; One for 20-6.
> 73
> H.
> NQ5H
>
>

954. Re: 160 Meter noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 15:08:43 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <bujg9u$14h4$1@f04n12.cac.psu.edu>
Source record: 101526

You might think about what I did for 80m. I made a 1/8 wave spaced cardioid array out of ham stick mobile whips. I used just enough ground radials to get a 50 ohm Z to make the phasing lines easier. In my case that was 4 10' long wires laid on the ground for each antenna. I feed them with 1/4 wave lines from a relay box that has the 135 deg. phasing line. The relay switches the feed point between the ends of the phasing line to make the direction switch. This is not a transmitting antenna, the losses are too high for that, but it works well as a receive antenna. I get about 20db front to back, much more in some directions, my noise went from S-7 to S-9 to S-0 but the signals are perfectly copyable even when not even showing on the S meter. I do not use a preamp, as I don't care if the signal don't show way up on the meter, all I care about is the signal to noise ratio which went way up. No more narrow filters, DSP noise reduction and headaches from the headphones and the roar of the noise. It's made 80m DXing much more pleasurable. The best part of this method is it doesn't take up much room, 32' on 80m, and is not very visible It's pattern is similar to a beverage especially in elevation but takes up a lot less room. Disadvanges is that it works only over a small range of frequencies, in my case the SSB DX window +/- some on 80m where a beverage or a loop can work on several bands. I would have like a rosette of beverages but you don't do that on a 0.7acre lot.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

"Metalhead" <burcha@tampabay.rr.com> wrote in message
news:2j7q00tssr3cdj1as5o3c40s5374jk197g@4ax.com...
> My problem is space. I live on a small 1/4 acre lot and can't get
> much distance from a receiving loop and the inverted L (maybe about 30
> feer or so at most.) My guess is that this is too close and will
> alter my radiation pattern on the transmitting L. How far away should
> the loop be from the L for this?
>
>
> On Tue, 20 Jan 2004 11:52:20 GMT, "Floyd Sense"
> <sentek@sprintmail.com> wrote:
>
> >I'm located quite a way from any city noise sources, and all power lines
in
> >the area are underground. On my inverted L for 160, my noise level peaks
at
> >S1 on 160 and that's with the pre-amp on. I'd consider an S8 noise level
> >intolerable! A K9AY loop might be worth trying, depending upon the

source
> >of your noise. It has a pretty good steerable null and will help if the
> >noise is coming from one direction.
> >
> >73, K8AC
> >
> >"Metalhead" <burcha@tampabay.rr.com> wrote in message
> >news:5lon00hcerse1f029bc7d7gtqsb0e9doer@4ax.com...
> >> I have just recently put up a 160 meter inverted L antenna. I briefly
> >> had up a shortened inverted V which I had up for about 1 year. I know
> >> that 160 is a noisy band, but I am curious what kind of noise levels
> >> others normally get on 160. With the inverted V, I would get about a
> >> S7 noise level. On the inverted L, I get an S8 noise level (with the
> >> noise blanker on.) I understand that the vertical will pick up more
> >> man made noise and I do have my share of power line noise here on my
> >> small city lot. Is this typically normal or is this extremely noisy
> >> for 160? Just curious what kinds of noise levels others get. I am
> >> going eventually put up a small receiving loop for 160 meters in the
> >> future.
> >>
> >> Thanks for any input.
> >>
> >> Burch
> >> K4QXX
> >>
> >>
> >

955. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 15:20:58 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <100qhuciq7srba0@corp.supernews.com>
Source record: 101532

Building an antenna using a big copper pipe for the base is appealing.
It's the motor tune feature on 80 that attracted me to the screwdriver.
All a low SWR insures is that you aren't heating up your transmitter.
I use a field strength meter.
73
H.

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
news:400d3d51_3@news1.prserv.net...
> I played with the Hustler when it was introduced, and got the impression
it
> was a loser 40 years ago. I now wonder if that lower mast is purposely
> lossy. Or maybe just accidentally lossy and they ran with it. Looks good
> on SWR meters which hams are infamous for. I would modify your
observation
> about the diameter of the bottom section to: The RF impedance of the
lower
> section really counts. How about trying either a copper braid or tube
> around the Hustler or a copper plated base section under the bug catcher
and
> see what that measures.
>
> --
> Crazy George
> Remove N O and S P A M imbedded in return address
> "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote in message
> news:100ojmpq4rnnhcb@corp.supernews.com...
> > QST
> > It's been a while since I posted all that bazooka data that made me
stick
> to
> > dipoles, so here goes:
> > I've been using Hustlers mobile for almost 40 years and find them
> adequate;
> > The mast I bought in 1970 only recently failed.
> > I'm reworking my HF mobile installation around a TS-480HX and decided to
> > graduate to a screwdriver. I bought a Tarheel 200.
> > I prefer to operate a mobile antenna at it's resonant frequency and
match
> to
> > the impedance of the transmission line with a transformer.
> > So here I present the resonant feedpoint impedances of a Hustler (small
> > resonators), the Tarheel 200 screwdriver and a 103" whip on a bug
catcher

> on
> > a 54" Hustler base. All antennas on the same ball mount. Measurements by
> > MFJ. "Resonant" implies X=0.
> >
> > band Hustler Screwdriver 103"/BugCatcher/54"
> > 80 21 ohms 9 ohms 23 ohms
> > 40 25 11 na
> > 20 30 30
> > 10 40 32
> >
> > I really thought the huge bug catcher would do better.
> > The screwdriver shows encouraging results for signal improvement over
the
> > others on 80 and 40.
> > Seems the diameter of that bottom conductor on the screwdriver makes a
big
> > difference at the lower frequencies.
> > Since the TS-480HX has two antenna jacks, I think an additional small
> > screwdriver is in order; One for 80-20; One for 20-6.
> > 73
> > H.
> > NQ5H
> >
> >
>
>

956. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 15:36:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400d4b96_2@corp.newsgroups.com>
Source record: 101527

Reg Edwards wrote:
> Cecil, why do you insist on deliberately missing the point?
> There is NO SWR meter!

Reg, my name "Cecil" means "blind" but I'm not blind. Should
I change my name? A rose by any other name smells just as sweet.
The thing is named an "SWR Meter". It's written right on all of
mine. Never mind that all it does is a phasor addition between
a voltage proportional to the voltage and a voltage proportional
to the current.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

957. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 15:41:23 UTC
From: jder8745@aol.com
Message-ID: <20040120104123.04631.00000348@mb-m10.aol.com>
Source record: 101528

Someone sed:

"I always hear and read that a high SWR can destroy the PA final of TX,
cranck coils, etc."

==========

I've always heard that too. And I always heard that if you break a mirror,
you'll have seven years bad luck.

73 de Jack, K9CUN

958. Re: Why do we use thin antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 15:47:49 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <bujij5gsh1@mail.specsol.com>
Source record: 101529

SpamLover <n1jpr@hotmail.com> wrote:
> Thank you everyone!

> >> 65 mph
> We have enough problms with all those flying saucers annoying people
> from time to time. I promise I won't create more.

> So, it seems that high capacitance is not a no-no for electrical
> reasons. If you look at naval radio masts, sometime you'll see
> manufacturers boasting of their "high capacitance" - like that
> double-drainpipe-thick-mast stainless steel monster that I guess won't
> cost less than $20k - but takes 40 kW, and won't stretch an automated
> ATU to seek an impossible match.
> (http://www.valcom-ottawa.com/Guelph/products/highfreq/oe415_photo.html
> et al.)

> From a mechanical standpoint I'd have no problem putting up a 1ft.
> diameter wire "disk" or a similar structure. I have been
> experimenting with a bizarre material: MIG copperflashed steelwire.
> Dirt cheap, springy, solders extremely well, can be hand-shaped. It
> can be used to put together small, super-light, bouncy, 3-dimensional,
> lattice structures. Rusts like hell, but nothing that can't be dealt
> with using an ordinary nitric acid paint and laquer.

> I had already planned to use that stuff in my next VHF discone, now I
> am tempted to use a high capacitance disk as pickup in a mobile
> broadband HF active antenna.

> Is there some good soul here who can help me figure out the impedance
> I need to match?

> I would like to interpose either a T + Pi network or a Chebyscheff
> between the antenna and a classic FET gate, to kill off RF below 3 MHz
> and above 30 MHz.

> My first try would be either a 1 ft disk with 16 braced 1mm radials
> about 8" above a car roof, or a cone of the same dimensions pointing
> down into the amplifier case. Hmmm... that would be a structure
> similar to those monster HF broadband designs - just 50 times smaller!

Not that I would discourge experimentation, but it would be worthwhile
to get a copy of something like the ARRL Antenna Book and read up on
top loading to learn what those capacitve hats actually do.

You will also find how to figure out the impedance of a top loaded system.

BTW, brazing rod is a bit more expensive but doesn't have the rust problem. Use the plated MIG stuff for the prototypes, brazing rod for the final build.

--
Jim Pennino

Remove -spam-sux to reply.

959. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 15:48:55 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <H5cPb.89261$Rc4.431228@attbi_s54>
Source record: 101530

Thierry wrote:

SNIP
> Hi,
>
> Correct. This is well what I did, rotating the amplifier load knob (a
> kenwood TL922) to reduce the SWR as I could not reduce it another way
> (antenna side) due to my defect balun.
>
> 73
> Thierry

No! You did not reduce the VSWR!! You increased the loading of the amplifier!

If you remember, VSWR is a measure of the impedance mismatch of the antenna and the impedance of the transmission line MEASURED AT THE ANTENNA. There is NOTHING you can do at the RTX/Amplifier to change it!

The PLATE and LOAD controls on your TL922 allow you vary the values of 'C' in the output stage of the amplifier and therefore vary the range of tuning from typically 8 to 400 ohms.

DD, W1MCE

960. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 16:01:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bujjf6$9d0$1@newshost.mot.com>
Source record: 101533

OK, nice to know, but I thought the OP was questioning using separate resistors. OR did I miss the implication that the idea was to wind his/her own?

Coupling two (probably wire-wound) resistors (coils) of unknown internal physical construction seems very dubious to me. They aren't constructed to get a specified inductive coupling. They typically will go side-by-side, but not end-to-end very well. As you say "closely coupled" I think is the key.

If you CAN get coupling (of two _individual_ coils-resistors) , won't it be selective rather than broad band (the normal purpose for wanting non inductive in the first place)? Isn't broad-band and parallel wire windings pretty much synonymous? Like in Baluns? I'd have to see how these non-inductive, wirewound resistors are wound. My "you can't get something for nothing" bone says its a critical and precise construction.

I should stop here because I think I've already gone from true familiarity to speculation - albeit interesting and supposedly educated speculation, but speculation none the less.
--
Steve N, K,9;d, c. i My email has no u's.

"Bill Turner" <noway@nohow.com> wrote in message
news:8a1p00hm1vd6mr6am8s6fbuq42uia3e72t@4ax.com...
> On Mon, 19 Jan 2004 16:43:47 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >a CW coil won't somehow subtract the inductance of a CCW coil.
>
> ____
>
> Sure it will, if the two windings are closely coupled. That's how
> "non-inductive" wirewound resistors are made. I put non-inductive in
> quotes because the cancellation is rarely if ever perfect and some
> inductance almost certainly remains, but it is a long-used technique.
>
> --
> Bill, W6WRT
>

961. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 16:12:44 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bujk58act1@newshost.mot.com>
Source record: 101534
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Where are you? I'm in Illinois and just got one of the clocks. I know it helps you not not a bit for me to say mine sync'ed up quickly, but everybody says that kinda' stuff (:-)..

Don't think there is anything to buy... Make is the only way.

The instructions for mine say that it only listens at certain times and can take a few _DAYS_ to sync up. That seems strange to me...oh well.

Ivan's passive loop is a VERY good idea - easy.

I don't think cinder block walls will matter.

Search for "lowfer". I wanted to actually hear WWVB and do a little SWLing for NDBs (300-500KHz) w/ my new IC 706 and did some snooping. A good loop takes a little bit of work.
--
Steve N, K,9;d, c. i My email has no u's.

"Chris Campbell" <chris-google@pobox.com> wrote in message news:ba42132e.0401191900.13158d8@posting.google.com...
> I'm trying to get a radio clock to sync up with WWVB (60 kHz out of
> Colorado). In the place that I want to place the clock, I can not get
> it to sync, even at night when the signal is stronger.
>
> Inside the clock is a small ferrite-core loopstick antenna. I figured
> out which way the gain pattern pointed on the thing (i.e. not along
> the axis of the ferrite rod) and tried positioning the clock for
> maximum signal, but no luck.
>
> So now I'd like to try a better antenna. I won't have the time to
> make one myself, and I'd probably do it badly anyway. It seems that I
> should be able to buy an antenna for this fairly cheaply (thank you to
> my capitalist exploiter overlords!), but I can't find one. Ideally,
> one designed for WWVB's 60 kHz would be great, but I'll settle for
> anything really, as long as it claims to have some decent gain at 60
> kHz.
>
> This clock is going inside a building, inside two layers of cinder
> block / concrete walls, so it's possible that I just won't be able to
> get a signal in there no matter what I use. The
> external-antenna-and-a-wire-run concept is the next step, but I'd
> rather not to that unless I have to. We're moving out of that
> facility in a few months so that would be wasted labor.
>

> What are some sources for loopstick antennas?
>
> On another note, in searching this forum, someone said:
>
> An LF loopstick antenna wound on a 1/2 inch diameter rod is *much*
> less efficient than a 1-meter square air loop
>
> Assuming I have the space, am I better off trying this with a few big
> loops of wire instead of a small ferrite loopstick? What are the
> rules of thumb for comparing the two types of loop antennas?
>
> Thanks!

962. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 16:31:44 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0401200831.578d3d87@posting.google.com>
Source record: 101535

nm5k@wt.net (Mark Keith) wrote in message
news:<25eb70d7.0401200331.200b135d@posting.google.com>...
> " Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:<bVUOb.100367$I06.445073@attbi_s01>...
> > Mark
> > Let me only respond to the technical things that you are mistaken on
> > Radiators do have parts that are inefficient which you
> > apparently do not accept.
>
> No, I don't accept it. To me, you are misapplying terms. All radiators
> are efficient unless they are so thin, or of a material as to have a
> lot of excess resistance.
> All radiators are equally capable of being efficient radiators AS LONG
> as you can actually transfer power to them. Efficiency is a poor term
> to use for a radiator quality. A half size dipole is just as capable
> of being an efficient radiator as the full size dipole. Really no
> less, or more so. The fun part is actually transfering the power from
> the radio/feedline to the radiator in an efficient manner. The only
> thing you are altering when you shorten an antenna element is the
> pattern, and gain in a certain direction. And the change is not that
> drastic. The pattern is still a fig 8, and the gain has dropped to
> about 1.8 dbi, instead of appx 2.1 dbi. You do not alter efficiency
> per say. The efficiency is the percentage of power lost in the
> transfer of power to the radiator. Or you can gauge the efficiency of
> the whole system as a whole. You do not gauge efficiency of radiating
> elements, except as already stated.

> BTW, if I'm wrong on any of this, anyone feel free to jump in and
> correct...
> I don't want to create any excess old wives either...

Unfortunately Mark this is not going to happen.
Having lost so many talented people from this group the
tendency now for those that are left are to avoid the
hard questions, provide quotes from books that leave you
hanging afterwards or intentionaly or other wise confuse
and divert from the specific issue.
I would like to make one point clear. I was refering to
efficiency per unit length which somehow people will not accept.
In the case of the amateurs losing the ends of the dipole and not
noticing the difference is purely because the difference is not
perceptable to the ear as your figures pointed out which is why
capacity hats are so usefull.
On the ARRL question and gaps between dipoles. In all my copies
the gain curves all stop at zero gap between dipole ends which is

absolutely absurd as the ends of a dipole has nothing to do with
the situation of gain. Gain is determined as a vector addition
in combination with phase.
I also agree that less loss would be a better term but if one
moves away from convention all hell breaks loose
Best regards
Art

ie power factor or cos phi.
you have read them or

>
> > Radiation is created by current. If current was uniform over a radiator
> > length then the length of the radiator is reduced from 1/2 wave to
> > wavelength over pi.
> > This is because voltage becomes more dominant than current at the ends of a
> > radiator.
> > If you divide the current curve into uniform radiator length
> > it should become clear to you that the area under the current curve per unit
> > length diminishes as the curve moves to zero. This is fundermental but if
> > you still have problems with this concept by all means continue a technical
> > dialogue.
>
> Dunno... I'm not really getting the point of all this...
> >
> > Loss less feed systems.
> > This term is used quite a lot in academia. One can relate it to such things
> > as household circuits where the radiation is so small it is not considered a
> > factor in calculations.
> > . A 'loss less' feed system in say an antenna would comprise of something
> > short with respect to wave length and would be voltage dominated so that
> > radiation is minimised by the low value of current.
>
> I'd feel better if you dropped the "lossless" term, and changed it to
> "low loss". Or maybe lower loss...
> >
> > Regarding efficiency of magnetic loops.
> > It is clear in this case that we are dealing with a radiatior that is not
> > only one tenth of a wavelength but also has an impedance dominated by
> > resistive losses which means that the efficiency will be extremely low and
> > possibly only a tenth of what you surmised.
>
> Not sure...I don't bother with such antennas, but I was under the
> impression the efficiency could be fairly decent with those if the
> proper techniques were used in feeding them. I could have been
> mistaken on the appx 70% number...
>
> > There are ways to ensure that low impedance
> > problems can be overcome, we see similar problems overcome
> > in very high gain yagi's which tend to have low impedances as efficiency
> > increases. This problem can be readily overcome in many cases by adding a

> > second reflector where its proximity to the driven element
> > reverses the decline in impedance.by adding a coupling effect.
> > If I have forgotton something technical that you brought up please let me
> > know.
>
> I'm not sure if I really agree on this, but I'll leave this for now...
> >
> > Ah yes, the yagi syndrome.
> > Yagi gain is based on boom length assuming other requirements are met. In
> > the amateaur world boom length is not really a problem for half of the bands
> > but it is a problem in that boom length and gain have a limit in scope
> > as well usuitable for many bands. So I would expect that future enginners
> > will move away from just yagi's and explore methods where direct coupling of
> > radiators will occur to remove problems of fractional wavelength portions
> > spacings as one sees with the yagi aproach. and explore other areas, where
> > turning radius becomes prominent rather than boom length..
>
> They have been, still do, and surely will continue...
> MK

963. Re: Fm radio antenna question Please help !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 16:33:35 UTC
From: me <herber@ccser.com>
Message-ID: <LFTOb.340$p07.11546@eagle.america.net>
Source record: 101649

Added: I am trying to transmit the entire fm broadcast bandwidth 88-108mhz.
very low power, very narrow pattern.

"me" <herber@ccser.com> wrote in message
news:IM1Ob.132$p07.4884@eagle.america.net...
> I am interested to know if there is a way to transmitt FM radio
frequencies
> in a directional path. I need to transmit from 1/8 to 1/4 mile in a very
> direct narrow pattern. Does anyone know if this is possible.
>
>

964. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 16:38:11 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <400D596A.1E222089@earthlink.net>
Source record: 101536
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Steve Nosko wrote:
>
> Where are you? I'm in Illinois and just got one of the clocks. I know it
> helps you not not a bit for me to say mine sync'ed up quickly, but everybody
> says that kinda' stuff (:-)..
>
> Don't think there is anything to buy... Make is the only way.
>
> The instructions for mine say that it only listens at certain times and can
> take a few _DAYS_ to sync up. That seems strange to me...oh well.
>
> Ivan's passive loop is a VERY good idea - easy.
>
> I don't think cinder block walls will matter.
>
> Search for "lowfer". I wanted to actually hear WWVB and do a little SWLing
> for NDBs (300-500KHz) w/ my new IC 706 and did some snooping. A good loop
> takes a little bit of work.

All you will hear is nothing, unless your detector and audio amp goes
down to DC. The modulation rate is one bit per second, by reducing the
carrier level by 10 dB. There is no audio modulation, because the signal
is also a frequency standard. The only way you would hear it would be to
mix a signal to beat against WWVB to produce a heterodyne in the radio's
pass band.

--
We now return you to our normally scheduled programming.

Take a look at this little cutie! ;-)
http://home.earthlink.net/~mike.terrell/photos.html

Michael A. Terrell
Central Florida

965. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 16:44:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400d5b85_5@corp.newsgroups.com>
Source record: 101537

JDer8745 wrote:
> Someone sed:
>
> "I always hear and read that a high SWR can destroy the PA final of TX,
> cranck coils, etc."
>
> I've always heard that too. And I always heard that if you break a mirror,
> you'll have seven years bad luck.

A high SWR can indeed destroy unprotected solid-state finals by causing
over-current and/or over-voltage. If finals cannot be damaged by the
impedance mismatch accompanying a high SWR, why do the transceiver
manufacturers waste money on protection circuitry? Of course, a tuning
network between the final and the feedline will usually alleviate the
problem through matching.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

966. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 16:46:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400d5c23_5@corp.newsgroups.com>
Source record: 101538

Dave Shrader wrote:
> If you remember, VSWR is a measure of the impedance mismatch of the
> antenna and the impedance of the transmission line MEASURED AT THE
> ANTENNA. There is NOTHING you can do at the RTX/Amplifier to change it!

Of course there is, Dave, just hit the tune button connected to your
remote auto-tuner. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

967. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 16:53:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400d5da7$1_5@corp.newsgroups.com>
Source record: 101539

Craig Buck wrote:
> I was talking about radiation efficiency taking into account the ground
> losses. The ARRL Antenna Book equation is Efficiency = Radiation Resistance
> divided by the sum of Radiation Resistance + Ground loss + Coil loss. Plug
> in a 6 ohm ground loss and whatever you want to assume for the coil loss.
> The higher the radiation resistance the higher the efficiency. No?

For an 8 ft center-loaded whip on 75m, the ARRL Antenna Book gives 0.8 ohms
as the radiation resistance and 22 ohms as the feedpoint impedance. That's
an efficiency of about 3.6%, about 4 watts radiated for 100 watts input.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

968. Re: Why do we use thin antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 17:01:44 UTC
From: pez <studentant@hotmail.com>
Message-ID: <bujmu8stq1@nic.grnet.gr>
Source record: 101540

Generally,

Because there is a good agreement between
theoretical [analysis/design] computations
and measured [explanation/prediction] data.

Sincerely,

pez
SV7BAX
TheDAG

"SpamLover" <n1jpr@hotmail.com> wrote in message
news:95a201e0.0401191122.68b4b2e0@posting.google.com...
| Purdon my deep egnorance, but, why do we tend to use thin conductors
| for antennas? I know of only few counter-examples, all at VHF and
| above:
| - a discone can be made of sheet metal, rather than thin radials
| - a log-periodic broadband dipole can be made as an etched spiral
| pattern on PCB (and I guess it can't be made with constant section
| conductors at all...)
|
| I know that things get more complicated at higher frequencies, what
| with slot antennas & suchlike.
|
|
| A connected curiosity is regarding short active receiving antennas on
| HF. My concern is putting together an efficient, mobile mounted,
| all-band HF receiving antenna. If we use short whips, they show an
| extremely high impedance and require a carefully designed matching
| amplifier. At such high impedance levels, a broad 3-30MHz bandpass
| filter may not be easy to design - so I have been told.
|
| But I wonder - why not use 1-2 sqft of conductive surface instead, e.g
| PCB or big bore copper rainpipe, worked against the car body?
|
| I just ran an unscientific experiment. I grounded a pocket HF
| receiver to a steel-topped table, and balanced a steel pot lid on the
| top of its collapsed whip antenna. Signals were booming. A 10" PCB
| disk, placed 5" above the steel roof of a car shouldn't be much
| different.
|
| Comments?

969. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 17:24:16 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <4vdPb.89353$Rc4.443994@attbi_s54>
Source record: 101541

Cecil Moore wrote:

> Dave Shrader wrote:
>
>> If you remember, VSWR is a measure of the impedance mismatch of the
>> antenna and the impedance of the transmission line MEASURED AT THE
>> ANTENNA. There is NOTHING you can do at the RTX/Amplifier to change it!
>
>
> Of course there is, Dave, just hit the tune button connected to your
> remote auto-tuner. :-)

Gee Cecil, I didn't know you contributed to "Old Men's Tales". Next
you'll be telling us that you got your VSWR down to ZERO :-)

970. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 17:30:54 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <hBdPb.92880$nt4.225549@attbi_s51>
Source record: 101542

Cecil Moore wrote:

> Craig Buck wrote:
>
>> I was talking about radiation efficiency taking into account the ground
>> losses. The ARRL Antenna Book equation is Efficiency = Radiation
>> Resistance
>> divided by the sum of Radiation Resistance + Ground loss + Coil loss.
>> Plug
>> in a 6 ohm ground loss and whatever you want to assume for the coil loss.
>> The higher the radiation resistance the higher the efficiency. No?
>
>
> For an 8 ft center-loaded whip on 75m, the ARRL Antenna Book gives 0.8 ohms
> as the radiation resistance and 22 ohms as the feedpoint impedance. That's
> an efficiency of about 3.6%, about 4 watts radiated for 100 watts input.

Keeping Ground Loss and Coil Loss constant and increasing the radiation
resistance from 0.8 ohms to 1.6 ohms changes the efficiency to 7%. Hmmm
... the higher the radiation resistance the higher the efficiency!!

971. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 18:10:06 UTC
From: richardharrison@webtv.net
Message-ID: <12755-400D6EFE-397@storefull-3255.bay.webtv.net>
Source record: 101543

Dave Shrader wrote:
"Next you`ll be telling us that you got your VSWR down to Zero :-)"

Just to demonstrate that there are lurkers:
No, I`d bet Cecil would quit at 1:1.

Best regards, Richard Harrison, KB5WZI

972. CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 19:13:35 UTC
From: trashcan@shadowstorm.com
Message-ID: <ac5fb34.0401201113.2595b09b@posting.google.com>
Source record: 101544

For those of you who understand legitimate radio antenna theory here
is a good laugh.

Some bozo is currently selling the following "mobile CB beam antenna"
to CBers.

Star Gun Mobile (27 MHz) CB Antenna
http://cbrepairs.com/index.htm

-MR

973. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 19:20:42 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Ea2dncGt0YwG4pDdRVn-jA@comcast.com>
Source record: 101545

I should have mentioned that these resistors come in transistor packages,
and need to be heat sinked. The Mouser catalog shows dissipation curves. For
instance, at 100 C, the resistor is good for about 1/2 of the rated Wattage.

Tam/WB2TT
"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:juKdnRgPb-s3ZpbdRVn-jw@comcast.com...
> www.mouser.com sell Caddock non inductive resistors. The 100 W are about
$10
> ea in onses.
>
> Tam/WB2TT

974. Re: Space Miser 80m - available again!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 20:16:18 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <m0gPb.91586$5V2.230846@attbi_s53>
Source record: 101546

Interesting. I can't read the small writing thus the question
He is using coax presumably for the braid to rediate.
I suppose there is some benefit to connecting to its inside???
But the main point I question is the usefullnes of brading to radiate versus
a hardline exterior thus introducing high loss. other than to obtain a nice
looking SWR contour.
Regards
Art

"ELLIS" <prellis@pcug.org.au> wrote in message
news:newscache$qtasrh$ffn$1@tomato.pcug.org.au...
> Dear all,
>
> I have had permission from Roger Harrison VK2ZRH, the copyright holder of
> the 1987 article, to place a copy of the article describing the James
> Taylor W2OZH "Space Miser 80m" antenna on my web site.
>
> http://www.pcug.org.au/~prellis/amateur/space-miser-80m.html
>
> Enjoy this modest-sized 80m antenna well suited for city apartment living.
>
> Peter
> VK1KEP
>
>
>
>
>
>

975. Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 20:19:39 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <v3gPb.265031$dl.14023428@twister.southeast.rr.com>
Source record: 101547

Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna if it is physically only 4ft long or would this be an 1/8 wavelength antenna(more or less).I am saying this should be called an 1/8 wl antenna though I am arguing with those who generally know more more about this than I. Not all the old timers disagree with me, so I am betting this is a pretty common problem when discussing antennas.

976. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 21:01:12 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <sGgPb.19926$MV4.14554@nwrddc03.gnilink.net>
Source record: 101548

"Jimmy" <Gfender@carolina.rr.com> wrote in message
news:v3gPb.265031$dl.14023428@twister.southeast.rr.com...
> Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
> if it is physically only 4ft long or would this be an 1/8 wavelength
> antenna(more or less).I am saying this should be called an 1/8 wl antenna
> though I am arguing with those who generally know more more about this
than
> I. Not all the old timers disagree with me, so I am betting this is a
pretty
> common problem when discussing antennas.
>
> You have to differentiate between electrical length and physical length.
Electrically, the antenna is a 1/4 wavelength antenna. Physically it is
0.125 wavelength tall.
Then again , you could do what the CB industry does and measure the length
of the wire and call it, say, a 1 wavelength antenna- meaningless.
Dale W4OP

977. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 21:01:51 UTC
From: Alex Flinsch <alex@localhost.localdomain>
Message-ID: <slrnc0r60k.3i7.alex@homer.linux1.lan>
Source record: 101549

In article <v3gPb.265031$dl.14023428@twister.southeast.rr.com>, Jimmy wrote:
> Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
> if it is physically only 4ft long or would this be an 1/8 wavelength

If the antenna is an electrical 1/4 wave then it is a 1/4 wave antenna, even
if it is physically shortened by use of coils.

Alex / AB2RC

978. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 21:10:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400d99fb$1_4@corp.newsgroups.com>
Source record: 101550

Richard Harrison wrote:
> Dave Shrader wrote:
> "Next you`ll be telling us that you got your VSWR down to Zero :-)"
>
> Just to demonstrate that there are lurkers:
> No, I`d bet Cecil would quit at 1:1.

Heck Richard, I often quit at 2:1. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

979. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 21:15:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400d9b2f_4@corp.newsgroups.com>
Source record: 101551

Jimmy wrote:

> Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
> if it is physically only 4ft long or would this be an 1/8 wavelength
> antenna(more or less).I am saying this should be called an 1/8 wl antenna
> though I am arguing with those who generally know more more about this than
> I. Not all the old timers disagree with me, so I am betting this is a pretty
> common problem when discussing antennas.

What you have is a *physically* short antenna that is *electrically*
1/4WL long. This usually involves a loading coil.

Also, the electrical length of a piece of coax is longer than it's
physical length because of the velocity factor less than 1.0.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

980. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 21:22:42 UTC
From: dplatt@radagast.org
Message-ID: <100r71216buo701@corp.supernews.com>
Source record: 101552

In article <ac5fb34.0401201113.2595b09b@posting.google.com>,
Night Ranger <trashcan@shadowstorm.com> wrote:

>For those of you who understand legitimate radio antenna theory here
>is a good laugh.
>
>Some bozo is currently selling the following "mobile CB beam antenna"
>to CBers.

Great Ghu! All it's missing is the optional kit of RF-powered blinky
lights, and maybe the Tesla-coil corona-flame attachment.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

981. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 22:24:45 UTC
From: "www.ttdown.com" <volker@kadira-net.com>
Message-ID: <a49r00l614m5o8cbedd683rfk01e92j589@4ax.com>
Source record: 101553

On Mon, 19 Jan 2004 01:21:37 GMT, Alex V Flinsch <avflinsch@att.net>
wrote:

>On or about Sun, 18 Jan 2004 18:00:43 +0100, Volker Kerkhoff
><volker@kadira-net.com> wrote about the following in article
><bueebjbfn1@gateway.pa.homeip.net>:
>
>
>> Should have specified... Free (as in free speech, not as in free lunch)
>> not necessarily means free of charge or other contractual terms, but "must
>
>With a statement like that, I knew that you were a Linux user even before
>looking at the message headers...

Well, no I am a user of whatever operating system my customer expects
me to, as long as I have the skills for it. This may involve Linux,
Solaris, various flavours of Windows, QNX, OpenVMS, Tru64, HP/UX. At
home, btw I use a linux box for a Firewall and Mail / News Gateway to
my DSL, and another one as a "playground" and File Server. In my radio
/ SWL corner I have a Windows-based PC since most of the software,
starting with ILGDB and ending with Digital Modes is simply not
available for Linux. I choose whatever tool does the job, and this may
involve all of the above.

Ah, yes, and although I have a goatee (which I keep short and well
trimmed) I feature a clean, short haircut, unlike some other gentlemen
in Linux advocacy.

Anyways, could this "free" be so misunderstood? When I hear the USA
being referred to as "The Land of the Free" I don't immediately think
"Cool, gotta go there for my next holidays, must be cheap", even
though I am not a native english speaker.

982. Re: Outwitting Home Owner Associations/Condo Associations RegardingAntennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 22:24:47 UTC
From: "www.ttdown.com" <volker@kadira-net.com>
Message-ID: <kk9r005e4rhbd6ecvvud8na3c5apmb9lcm@4ax.com>
Source record: 101554

On 19 Jan 2004 11:04:58 -0800, pw342@hotmail.com (PatW) wrote:

>Interesting discussion. As a the former treasurer of a large
>complex(250 units), I was the chair of the roofing committee. The
>roofs were all failing on 30 buildings and an inspector was hired to
>review them. The junk that was attached to the roofs was one of the
>major problems. Cables penetrating the surface etc.
>In one case, a TV antenna was screwed right into the roof. When it
>comes to common property like that, the association cannot allow
>individuals to attach their own private stuff wherever they want.
> So, homeowners can put up a TV antenna, but the association has to
>protect the roofs, at a minimum, from damage.
> I don't know how you can accomplish both.
> Pat W

Oh, well... Associated rather undeniable right to install your (ham or whatever) antenna comes a lengthy section on "protecting and safeguarding the use of common spaces by other tenants" and "not damaging structural or other pieces of the house's infrastructure"

Keep in mind that possibly 70% of people in Spain live in appartment blocks, even in rather small towns, not larger than a couple of 10.000 inhabitants. Real estate have skyrocketed with the governement we've had for the last 8 years, it's hard to find even a modest, 40-year old 60 sqMtr appartment even in a 50.000 inhabitant town for less than 120.000 $US and you guys will easily get a house (maybe faaaar in the outskirts, but a house) for that price.

983. Re: SWR read to TX or rather to the antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 22:37:54 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400dadc4$1_2@news.vo.lu>
Source record: 101555

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:H5cPb.89261$Rc4.431228@attbi_s54...
> Thierry wrote:
>
> SNIP
> > Hi,
> >
> > Correct. This is well what I did, rotating the amplifier load knob (a
> > kenwood TL922) to reduce the SWR as I could not reduce it another way
> > (antenna side) due to my defect balun.
> >
> > 73
> > Thierry
>
> No! You did not reduce the VSWR!! You increased the loading of the
> amplifier!

OK, ok ok, I interpreted my result and left some words in my kbd....
In fact what I wanted to say is that in adjusting the load I see as a side effect or for consequence to change the value read on the SWR-meter (more of less input power, hence more or less reflected power due to a high SWR at the end of the line, but of course most of the time the value of the SWR, whatever the input power I used stay constant. (this is shorter to say that my TL modified the SWR...;-))

Thierry

>
> If you remember, VSWR is a measure of the impedance mismatch of the
> antenna and the impedance of the transmission line MEASURED AT THE
> ANTENNA. There is NOTHING you can do at the RTX/Amplifier to change it!
>
> The PLATE and LOAD controls on your TL922 allow you vary the values of
> 'C' in the output stage of the amplifier and therefore vary the range of
> tuning from typically 8 to 400 ohms.
>
> DD, W1MCE
>

984. Re: Who sells high wattage non-inductive resistors?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 22:39:00 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bukapb$c97$1@newshost.mot.com>
Source record: 101557

OK Bill. It seems that it is easy to go OT. I think the value here is to comment within the original poster's arena. I do my best to keep within the arena defined by the OP so the OP gets the most value from the feedback, but it is easy to get going on a tangential theoretical direction when the subject is personally interesting. Do it often.

'gards, Steve

"Bill Turner" <noway@nohow.com> wrote in message
news:tsrq001fblafphn418mjf5emhj8jo241be@4ax.com...
> On Tue, 20 Jan 2004 10:01:01 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >OK, nice to know, but I thought the OP was questioning using separate
> >resistors. OR did I miss the implication that the idea was to wind
his/her
> >own?
>
> Yes, the original poster was contemplating using two separate resistors
> of opposite winding direction. That was NOT what I was responding to.
>
> The post I was responding to said: "a CW coil won't somehow subtract
> the inductance of a CCW coil." That post didn't mention separate
> resistors and taken by itself is incorrect. That technique has been
> used successfully for decades.
>
> Sorry for the confusion.
>
> --
> Bill, W6WRT
>
>
>

985. Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:10:44 UTC
From: Macman <golf4pints@hotmail.com>
Message-ID: <ndCdnQa7NervKJDdRVn-hA@comcast.com>
Source record: 101556

I recently came across a radio shack CB/HAM mag mount antenna (#21-972).
I want to trim it down for 2m use. What would be length I would look for?
The steel whip is 39inches and it's total height with base is 46 inches.
I think it may be between 19.5 and 19.75 inches. Could someone confirm my
measurement?
Thanks.

986. Re: Space Miser 80m - available again!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:27:31 UTC
From: jgboyles@aol.com
Message-ID: <20040120182731.21817.00000381@mb-m06.aol.com>
Source record: 101558

>He is using coax presumably for the braid to rediate. I suppose there is some benefit to connecting to its inside???

Hi Art, I think the braid is connected to the inner conductor in an attempt to reduce I^2*R losses. In small loops, that is a problem. As far as increasing radiation, it should have the same effect as changing from a smaller diameter wire to a larger one. You get less loss, but does the inside of the smaller wire radiate less than the inside of the larger wire?
One thing that caught my eye was the use of 300 ohm line for the capacitor. The high voltage high Q cap. is another problem with small loops.

73 Gary N4AST

987. Re: Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:33:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400dbb71_7@corp.newsgroups.com>
Source record: 101560

Macman wrote:

> I recently came across a radio shack CB/HAM mag mount antenna (#21-972).
> I want to trim it down for 2m use. What would be length I would look for?
> The steel whip is 39inches and it's total height with base is 46 inches.
> I think it may be between 19.5 and 19.75 inches. Could someone confirm my
> measurement?

If it has a loading coil in the base, forget it for 2m.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

988. Re: Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:35:16 UTC
From: jgboyles@aol.com
Message-ID: <20040120183516.21817.00000383@mb-m06.aol.com>
Source record: 101559

>I recently came across a radio shack CB/HAM mag mount antenna (#21-972).
>I want to trim it down for 2m use. What would be length I would look for?

Hi Mac, Just make it a little long, and trim for best match (swr). You should be OK with around 19 inches, but if you want the best match at your frequency of interest, make long and trim.
73 Gary N4AST

989. Re: Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:39:54 UTC
From: Macman <golf4pints@hotmail.com>
Message-ID: <24ednexft_jUIZDdRVn-vg@comcast.com>
Source record: 101561

No loaded coil, as far as I can tell. There is a spring adapter at the base
but I believe it's just to allow for flex.

Thanks for the feedback.

990. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:41:53 UTC
From: jgboyles@aol.com
Message-ID: <20040120184153.21817.00000384@mb-m06.aol.com>
Source record: 101563

>Great Ghu! All it's missing is the optional kit of RF-powered blinky
>lights, and maybe the Tesla-coil corona-flame attachment.

You need a can of spray swr remover. I would apply that stuff all over that antenna before I would key down with my 10kw. Then you could leave off the corona-flame attachment.
73 Gary N4AST

991. Re: Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:44:33 UTC
From: Macman <golf4pints@hotmail.com>
Message-ID: <pqidnTFBxbnCIJDdRVn-hw@comcast.com>
Source record: 101564

Take a look.

http://www.radioshack.com/product.asp?catalog%5Fname=CTLG&category%5Fname=CTLG%5F008%5F009%5F005%5F001&product%5Fid=21%2D972

No loading coil that I can see. Only a spring adapter at the base to which
I believe is for tension release.

992. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:48:28 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bukerj$e4g$1@newshost.mot.com>
Source record: 101567

Jimmy,

I hope I am not providing flame fodder by saying you can call it several things, but I believe this is certainly the case. I think "we" are all too eager to engage in a symantics war rather than aiding to the understanding of the OP.

What you see in this thread is that there are different ways of describing the same thing and a netnews group is just about the best place to find all those different ways. Based upon the way we each learned about something, our method of discussing them is colored. There are frequently several "mental models" which suffice for one physical thing.

*** Many of the posters understand, in their own way, what is going on, but terminology can get complex and in the way sometimes. You will have to develop the best "mental model" that works for you. Terminology will also change over time in some areas.

Digression side bar:
The "J" antenna has come to be called the "J-Pole". "J-Pole" was a product name for a commercial product with several "J" elements stacked on a vertical "Pole" for gain. Odd. Nonetheless, I have become accostumed to this and know what they mean. They also talk about "Wide band receive" these days. "Wide band" used to refer to the bandwidth of the receiver's IF as in wide band FM and narrow band FM. Now the term is used in place of "General Coverage" receive.
End side bar:

If you are explicit in your description so the reader/listener knows what you wish to talk about, you will be better off than trying to "latch on" to one and only one "right" terminology. Then try your best not to get into the symantic battles, but discuss the specifics.

Let's take your initial description:
> Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
> if it is physically only 4ft long or would this be an 1/8 wavelength
> antenna(more or less)
What to call it?

First, when you say "4ft long", preceeded by "...still a 1/4 wavelength..." we must decide just what the antenna is. Since you say "still" 1/4 wavelength, you seem to be talking about a vertical which "should be" a 1/4 wave, but we took out the clippers and it has been shortened and is not physically 1/4, but half that length or 1/8 wave long.

Because you say "resonant", this tells us that something must have been done to get it to resonate (take away the reactive part) since the 1/8 wave

is not resonant by itself. Therefore we can state that we do have an 1/8 wave radiator and a matching "thing" perhaps a loading coil. "Loading coil" being the terminology we use to call a series (but not always) coil somewhere on the antenna.
Because we have now made it resonate (by virtue of the addition of the loading coil, or whatever) It is looking, from the transmitter or coax, more like the full 1/4 wave physical length antenna -- because a REAL 1/4 wave hunk of iron-in-the-sky would also be resonant by itself.. From this we can consider that it is now "Electrically" a 1/4 wave antenna, because from the "electrical" point of view (that is from inside the coax and "looking at the antenna" as a signal from the transmitter would) it appears to be resonant (just like a 1/4 wave antenna).

Be careful with this "electrical" and "physical" talk. I have read threads here where it gets very confusing with these two terms sprinkled throughout -even when I'm familiar with the antenna under fire..

Now, doing the usual digression to a related, but not asked question... The radiation pattern _WILL_ be that of the physical stuff in the air. (this assumes that the loading / matching device is not a significant part of the stuff doing the radiation -- not all that unreasonable of an assumption). In this case, it radiates like an 1/8 wave antenna. Unfortunately, an 1/8 wave isn't much different than the 1/4 wave ... thus allowing more discuccion as to whether or not it is 1/4 or 1/8. ...more digression... What I'm cautioning you about here is that it is the physical antenna that determines the _radiation pattern_ and you can't get full-size antenna performance with a smaller antenna and some magical circuit tricks or matching tricks, or some yet undiscovered, super quantum theory based wiggles on teh feed line of elements. You may get a pretty good antenna, but it is the Iron-in-the-sky that makes a pattern...un-digress...

SO, what to call it?
My initial vote would be to start with "loaded 1/8 wave vertical". This describes the physical antenna (a not optimim one) , then what was done to make it work better. I think calling it a 1/4 wave antenna is misleading for most people. You, not I, can take a vote what is brought to mind if you just say it is a "1/4 wave vertical". I'll bet most will think _1/4 wave physical_.

You can go further and describe the loading system furtherlike:
Center loaded, 1/8 wave vertical.antenna.
Base loaded, 1/8 wave vertical.antenna.
Top loaded, 1/8 wave vertical.antenna.
Shortened, 1/4 wave vert doesn't do too badly...

Then there's the "counterpoise" to consider. If you strung radials at the bottom "1/8 wave ...ground plane" is in order. If not, then "ground mounted 1/8 wave ..." may be called for.

In other words...describe it well and there should be less misunderstanding as to just what your subject is.

OK flamers, knock yourself out...
--
Steve N, K,9;d, c. i My email has no u's..

"Jimmy" <Gfender@carolina.rr.com> wrote in message
news:v3gPb.265031$dl.14023428@twister.southeast.rr.com...
> Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
> if it is physically only 4ft long or would this be an 1/8 wavelength
> antenna(more or less).I am saying this should be called an 1/8 wl antenna
> though I am arguing with those who generally know more more about this
than
> I. Not all the old timers disagree with me, so I am betting this is a
pretty
> common problem when discussing antennas.
>
>

993. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:55:58 UTC
From: jgboyles@aol.com
Message-ID: <20040120185558.21817.00000386@mb-m06.aol.com>
Source record: 101565

>SWR and common modes currents are unrelated. You can have a perfect
>match, and still have excess current on the coax shield.

Hi Mark, I agree, but those common mode currents can make your swr meter read strange things.
If one has excess common mode current, the placement of ones swr meter along the antenna system will effect what it reads. ok ok TLI meter.:-)
73 Gary N4AST

994. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-20 23:59:23 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <100rg6lc2hp089d@corp.supernews.com>
Source record: 101566

Hey, be kind!!! About 40 years ago, when first licensed, MY FIRST CAR had an antenna looked
alot like this (MINUS the vertical, but, with the YAGI , on 2 METERS. Did wonders (this in the AM DAZE)!
And, what with the Technician qualifications, nowadays-- Maybe this is for the NO CODE tech for 2
meter ssb, and CB thrown in for funsies?? ;>) Jim NN7K

"Dave Platt" <dplatt@radagast.org> wrote in message news:100r71216buo701@corp.supernews.com...
> In article <ac5fb34.0401201113.2595b09b@posting.google.com>,
> Night Ranger <trashcan@shadowstorm.com> wrote:
>
> >For those of you who understand legitimate radio antenna theory here
> >is a good laugh.
> >
> >Some bozo is currently selling the following "mobile CB beam antenna"
> >to CBers.
>
> Great Ghu! All it's missing is the optional kit of RF-powered blinky
> lights, and maybe the Tesla-coil corona-flame attachment.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

995. Re: Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 00:25:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400dc79a$1_7@corp.newsgroups.com>
Source record: 101568

Macman wrote:

> Take a look.
>
> http://www.radioshack.com/product.asp?catalog%5Fname=CTLG&category%5Fname=CTLG%5F008%5F009%5F005%5F001&product%5Fid=21%2D972
>
> No loading coil that I can see. Only a spring adapter at the base to which
> I believe is for tension release.

There's a loading coil beneath the spring. To use it on 2m, you would
need to short out that loading coil in the base under the spring.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

996. Arrl Microsmith --Ver. 2.3 and 'XP'

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 00:32:04 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <100ri3r6hemcc3b@corp.supernews.com>
Source record: 101469

Have (long ago, since at least Windows, 95 daz) purchased a copy of ARRL's
"Microsmith, version 2.3" , by Wes Hayward, and it worked in that
environment,
and thru Windows , ME. But, on this computer (and granted getting
obsolete),
at 1200 mHZ, and only 6-8 meg reserved for video memory no video card
(tho, with total 512 MEG of memory, total and, have set properties to "DOS",
Program loads, BUT the NUMBERS windows (for data entries, and for results,
has
(more like hurceales) Graphics, than anything else!! And, trying to enter
data,
this may change, but NOT in anything that makes sense (GIBBERISH) !
Has anyone else had this problem ? Found a solution ? Is it the video
drivers in the program? Comments please!! Jim NN7K

997. Re: Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 00:38:08 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <u66dnUH_m-H2IZDdRVn-hw@ctc.net>
Source record: 101562

> I recently came across a radio shack CB/HAM mag mount antenna (#21-972).
> I want to trim it down for 2m use. What would be length I would look for?
> The steel whip is 39inches and it's total height with base is 46 inches.
> I think it may be between 19.5 and 19.75 inches. Could someone confirm my
> measurement?
> Thanks.

I have not look at that antenna, but when it is advertised as a cb/ham antenna it is usually for the ham 10 meter band or the CB. At the bottom of the antenna is a loading coil. To use it on 2 meters you will have to remover the coil in the bottom of the antenna. If it is a 2 meter ham antenna that is about 40 inches long it will be a 5/8 wavelenght antenna . You need to look at another antenna for 2 meters if you want a 1/4 wave whip without any loading or matching coils. Then it would be close to 19 to 20 inches long.

998. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 00:54:09 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400DCDB1.6A84B998@cwis.net>
Source record: 101471

Art,
There are several questions interspersed in your
quoted post below. These questions deal with assumptions
and/or assertions you have made.

> Unfortunately Mark this is not going to happen.
> Having lost so many talented people from this group
------
1. Please furnish a list of those 'talented people' who
are now missing from 'this' group. A list of present
members of the 'group' would also be appreciated.
------
the
> tendency now for those that are left are to avoid the
> hard questions, provide quotes from books that leave you
> hanging afterwards or intentionaly or other wise confuse
> and divert from the specific issue.
------
2. Please furnish a list of 'those hard questions' which
have been avoided. Also the 'quotes from books' that have
left you hanging.

> I would like to make one point clear. I was refering to
> efficiency per unit length which somehow people will not accept.
------
3. Please explain why people should accept this theory. Of
what use is it?

> In the case of the amateurs losing the ends of the dipole and not
> noticing the difference is purely because the difference is not
> perceptable to the ear as your figures pointed out which is why
> capacity hats are so usefull.
> On the ARRL question and gaps between dipoles. In all my copies
> the gain curves all stop at zero gap between dipole ends which is
> absolutely absurd as the ends of a dipole has nothing to do with
> the situation of gain.
------
4. Have you perhaps thought that without the 'ends' of the
dipoles
being discussed, a necessary 'part' of the antenna to produce
the
gain is missing, and that the gain is lessened or absent?

Gain is determined as a vector addition

> in combination with phase.
> I also agree that less loss would be a better term but if one
> moves away from convention all hell breaks loose
------
5. Have you ever thought that if you would explain your
thought
process, and the non-conventional terms you use, that you
might
prevent that "all hell breaking loose"?

> Best regards
> Art
>

- 'Doc

999. Re: Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 01:10:25 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400DD181.95249FBF@cwis.net>
Source record: 101472

Macman,
There is a loading and impedance matching coil in the base
of the antenna just below the spring. It may be possible to
find a length of 'whip' that in combination with the loading/
matching coil will allow operation on 2 meters. Then again,
it may not be possible (don't bet on it).
Another option would be to remove the covering of the base
coil and re-tap it. One problem with that is that the covering
will probably be destroyed in the process. Another problem is
that the supplied coil probably doesn't have the correct
dimensions
required (you can always re-wind and tap it).
It won't be as simple as just 'trimming' the whip...
'Doc

1000. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 01:13:22 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <72kr001iiqet6svf8phiq0ls66i0uv8nge@4ax.com>
Source record: 101473

On Tue, 20 Jan 2004 20:19:39 GMT, "Jimmy" <Gfender@carolina.rr.com>
wrote:

>Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
>if it is physically only 4ft long or would this be an 1/8 wavelength
>antenna(more or less).I am saying this should be called an 1/8 wl antenna
>though I am arguing with those who generally know more more about this than
>I. Not all the old timers disagree with me, so I am betting this is a pretty
>common problem when discussing antennas.

A 1/2 wave dipole on 10 meters is about 16 feet. So 4 feet sounds like
1/8 wavelength, physically, to me.

Unless it has a loading coil -- which could make it, electrically,
"longer" than 1/8 wavelength.

Bob
k5qwg

>

1001. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 01:17:05 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400DD311.569748B6@cwis.net>
Source record: 101474

Steve,
All things considered, I don't see how your post can be
flamed. In fact, it's one of the better discriptions I've
ever seen (meaning I'm gonna steal it!).
'Doc

1002. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 01:20:05 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400DD3C5.D80F26F5@cwis.net>
Source record: 101475

Dave,
But, where's the rotor?
'Doc

1003. 4 X 4 Post as a vertical Insulator support ???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 01:29:51 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <100rlghp4dj51c@corp.supernews.com>
Source record: 101476

I'd like to up up a fullsize 80 m vertical and support it in on 4X4
pressure treated posts and have it several inches
above ground level. Actually I was planning using using a couple of
sections of lightweight aluminum tower
with tubing out of the top for the added length. Is there
a problem using pressure treated lumber? Dry enough
to insulate well?

Doug, N4IJ

1004. Re: Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 01:46:04 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <vo-dnW4144HFUZDdRVn-vA@ctc.net>
Source record: 101470

> Take a look.
>
>
http://www.radioshack.com/product.asp?catalog%5Fname=CTLG&category%5Fname=CTLG%5F008%5F009
%5F005%5F001&product%5Fid=21%2D972
>
> No loading coil that I can see. Only a spring adapter at the base to
which
> I believe is for tension release.
>

It does have a loading coil somewhere in it. That is the way any mobile
antenna around 3 feet tall works for 10 and 11 meters. It will not work on
2 meters unless you can find the coil, take it out , and then cut it to
about 20 inches.

1005. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 02:04:17 UTC
From: dplatt@radagast.org
Message-ID: <100rnh165v5ma37@corp.supernews.com>
Source record: 101477

>Dave,
> But, where's the rotor?
> 'Doc

I was assuming that he'd gimballed the lower joint, and lets the wind
loading spin it ;-)

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1006. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 02:14:38 UTC
From: kd4htu <kd4htu@sc.rr.com>
Message-ID: <iglPb.28900$cQ1.2070909@twister.southeast.rr.com>
Source record: 101478

That's what the driver sits behind.

'Doc wrote:

>
>
> Dave,
> But, where's the rotor?
> 'Doc

1007. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 02:25:56 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <400DE327.9FE364E9@earthlink.net>
Source record: 101479
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Dave Holford wrote:
>
> I hear it fine with several different receivers provided I use either CW
> or SSB. But! I CANNOT hear it on my IC-706; it does not seem to come
> alive until somewhere between 200 and 300kHz.
>
> Dave

Try using a HP312 series Frequency Selective Voltmeter for the
receiver.

Build a 60 KHz tuned loop and look at it with a scope. You can see
the modulation, because it is so slow. It is a CW signal with a 10 dB
gain reduction modulation with a maximum level change of twice per
second. (Normal and -10 dB) I built a three foot square copper loop with
an insulator where it was mounted on a cast aluminum electrical box, and
wound 20 turns of wire inside the 3/4" copper pipe after it was soldered
together. I used an op amp to give some gain,. and I could watch the
modulation. The big problem was a neighbor about a half mile away left a
TV set on 24/7 and the horizontal oscillator drifted after the station
went off, and the harmonics would drift right through 60 KHz. I wanted
to use it for a frequency standard, but I couldn't do it there. I will
try it again, some day, now that I have a couple miles of woods between
me and Colorado. I have enough gain to get around 12V P-P at the power
inserter. I used 75 ohm cable and "F" fittings because they were handy,
but I would use Mini Circuits MMICs and 50 Ohm cable if I built another
outdoor 60 KHz antenna.

--
We now return you to our normally scheduled programming.

Take a look at this little cutie! ;-)
http://home.earthlink.net/~mike.terrell/photos.html

Michael A. Terrell
Central Florida

1008. BiQuad Design Specifications for Microwave?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 02:58:55 UTC
From: tayl0rr@yahoo.com
Message-ID: <ff33c2c3.0401201858.2c8ff1f2@posting.google.com>
Source record: 101480

I'm looking for design data on the biquad feed. I haven't found it in any of the design books I have. The closest thing I found is the dipole reflector. What frequency range is this design good through? Is there a software package that will modem a biquad? I have found a couple of websites that have instructions for building them but not really any design data.

Thanks
Rob
AG4WR

1009. Re: Space Miser 80m - available again!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 03:01:21 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <5YIPb.93528$sv6.361439@attbi_s52>
Source record: 101481

Well I thought that braided wire was not good to use.
I have heard that braiding for instance must not be used for a grounding wire presumably because of poor electrical connections where the wires cross..
Cheers
Art

"JGBOYLES" <jgboyles@aol.com> wrote in message news:20040120182731.21817.00000381@mb-m06.aol.com...
> >He is using coax presumably for the braid to rediate. I suppose there is some
> benefit to connecting to its inside???
>
> Hi Art, I think the braid is connected to the inner conductor in an attempt
> to reduce I^2*R losses. In small loops, that is a problem. As far as
> increasing radiation, it should have the same effect as changing from a smaller
> diameter wire to a larger one. You get less loss, but does the inside of the
> smaller wire radiate less than the inside of the larger wire?
> One thing that caught my eye was the use of 300 ohm line for the capacitor.
> The high voltage high Q cap. is another problem with small loops.
>
>
> 73 Gary N4AST

1010. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 04:08:41 UTC
From: Rob Mills <robmills@cox.net>
Message-ID: <1WmPb.10141$zy3.4455@okepread01>
Source record: 101482

"'Doc" <w5lz@cwis.net> wrote in message news:400DD3C5.D80F26F5@cwis.net...

>>But, where's the rotor?<<

That's easy, you do donuts in the parking lot. RM~

1011. Re: 4 X 4 Post as a vertical Insulator support ???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 04:12:54 UTC
From: "Carl R. Stevenson" <wk3cqth@wk3c.com>
Message-ID: <iHydnTj0Y-rtYZDdUSdV9g@ptd.net>
Source record: 101483

"DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message
news:100rlghp4dj51c@corp.supernews.com...
> I'd like to up up a fullsize 80 m vertical and support it in on 4X4
> pressure treated posts and have it several inches
> above ground level. Actually I was planning using using a couple of
> sections of lightweight aluminum tower
> with tubing out of the top for the added length. Is there
> a problem using pressure treated lumber? Dry enough
> to insulate well?
>
> Doug, N4IJ

Doug,

Pressure treated lumber is notoriously high in moisture content.
Also, it is heavily impregnated with chemicals which would, I
believe further increase its conductivity.

While it could make a good support, I would not count on the
wood alone as an insulator ...

I would recommend that you figure out a way to use some sort
of additional insulators.

73,
Carl - wk3c

1012. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 06:51:54 UTC
From: Howard <#mensch90249@yahoo.com>
Message-ID: <rn7s00dpub4qtg5vnvdtsu02p1u99i4r8s@4ax.com>
Source record: 101484

On Wed, 21 Jan 2004 02:04:17 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>>Dave,
>> But, where's the rotor?
>> 'Doc
>
>I was assuming that he'd gimballed the lower joint, and lets the wind
>loading spin it ;-)

Nope, you are driving the rotor 8-} Need to aim the beam ..... just turn the steering wheel! The lower joint is gimballed and when it rotates it 'adds signal strength' due to the mv*2 factor. The only downside is that it ends up cancelling the 'roger beep'. C'mon folks, start putting that fancy radio science to work so you can properly analyze these grand innovations.

Don't know about your neck of the woods, but here in Southern California these past few years I've seen a growing number of CB antennas on big rigs and pickup trucks that have HUGE coils, really thick 'radials' just below the coils and whips that are stout as heck. Probably won't be long before I see a "star gun" - just hope I don't laugh so hard I get in an accident.

1013. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 06:57:19 UTC
From: gmz79@aol.comnospam
Message-ID: <20040121015719.21785.00000381@mb-m14.aol.com>
Source record: 101485

All the harmonics , hash and smeg waves are spun off the loading
coil and concentrated in a horizontal plane to be radiated forward
jamming all speed control devices ahead. Also allows your tranmission to be
heard on cell phones with the stick-on antenna
boosters. A true innovation in broadband comunications.
KC*VIF
Greg Z
to thine own sound be true

1014. Mil-Spec VHF-UHF Discone Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 08:54:23 UTC
From: Joe O <jenjoeo@zianet.com>
Message-ID: <400e380a@news.zianet.com>
Source record: 101486

Looking for a supplier of a rugged discone.

Thanks
Joe O, KI5FJ

1015. ARM ethernet DEMO

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 09:42:16 UTC
From: NEW_ARM_designer <LPC_2106@X2106.com>
Message-ID: <bulhdu$k42685@imsp212.netvigator.com>
Source record: 101487

http://arm.web7days.com/tn/ethernet.html

1016. Re: Mil-Spec VHF-UHF Discone Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 10:56:12 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <hUsPb.16735$A74.14562@fed1read02>
Source record: 101488

"Joe O" <jenjoeo@zianet.com> wrote in message
news:400e380a@news.zianet.com...
> Looking for a supplier of a rugged discone.
>
> Thanks
> Joe O, KI5FJ
>
>

Try Antenna Research Associates

http://www.aratech-inc.com/PDF/WSG/sas_21-23-r.pdf

Ed

1017. ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 11:09:29 UTC
From: Lloyd Mitchell <lloydm75@hotmail.com>
Message-ID: <X3tPb.32995$2L6.7688@bignews6.bellsouth.net>
Source record: 101498
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

SB QST @ ARL $ARLB003
ARLB003 ARRL to Propose New Entry-Level License, Code-Free HF Access

ZCZC AG03
QST de W1AW
ARRL Bulletin 3 ARLB003
>From ARRL Headquarters
Newington CT January 20, 2004
To all radio amateurs

SB QST ARL ARLB003
ARLB003 ARRL to Propose New Entry-Level License, Code-Free HF Access

The ARRL will ask the FCC to create a new entry-level Amateur Radio license that would include HF phone privileges without requiring a Morse code test. The League also will propose consolidating all current licensees into three classes, retaining the Element 1 Morse requirement--now 5 WPM-only for the highest class. The ARRL Board of Directors overwhelmingly approved the plan January 16 during its Annual Meeting in Windsor, Connecticut. The proposals--developed by the ARRL Executive Committee following a Board instruction last July--are in response to changes made in Article 25 of the international Radio Regulations at World Radiocommunication Conference 2003 (WRC-03). They would continue a process of streamlining the amateur licensing structure that the FCC began more than five years ago but left unfinished in the Amateur Service license restructuring Report and Order (WT 98-143) that went into effect April 15, 2000.

''Change in the Amateur Radio Service in the US, especially license requirements and even more so when Morse is involved, has always been emotional,'' said ARRL First Vice President Joel Harrison, W5ZN, in presenting the Executive Committee's recommendations. ''In fact, without a doubt, Morse is Amateur Radio's 'religious debate.'''

The entry-level license class--being called ''Novice'' for now--would require a 25-question written exam. It would offer limited HF CW/data and phone/image privileges on 80, 40, 15 and 10 meters as well as VHF and UHF privileges on 6 and 2 meters and on 222-225 and 430-450 MHz. Power output would be restricted to 100 W on 80, 40, and 15 meters and to 50 W on 10 meters and up.

''The Board sought to achieve balance in giving new Novice licensees the opportunity to sample a wider range of Amateur Radio activity than is available to current Technicians while retaining a

motivation to upgrade,'' said ARRL CEO David Sumner, K1ZZ. Under the ARRL plan, current Novice licensees--now the smallest and least active group of radio amateurs--would be grandfathered to the new entry-level class without further testing.

The middle group of licensees--Technician, Tech Plus (Technician with Element 1 credit) and General--would be merged into a new General license that also would not require a Morse examination. Current Technician and Tech Plus license holders automatically would gain current General class privileges without additional testing. The current Element 3 General examination would remain in place for new applicants.

The Board indicated that it saw no compelling reason to change the Amateur Extra class license requirements. The ARRL plan calls on the FCC to combine the current Advanced and Amateur Extra class licensees into Amateur Extra, because the technical level of the exams passed by these licensees is very similar. New applicants for Extra would have to pass a 5 WPM Morse code examination, but the written exam would stay the same. Sumner said the Board felt that the highest level of accomplishment should include basic Morse capability. Current Novice, Tech Plus and General licensees would receive lifetime 5 WPM Morse credit.

''This structure provides a true entry-level license with HF privileges to promote growth in the Amateur Service,'' Harrison said.

Among other advantages, Sumner said the plan would allow new Novices to participate in HF SSB emergency nets on 75 and 40 meters as well as on the top 100 kHz of 15 meters. The new license also could get another name, Sumner said. ''We're trying to recapture the magic of the old Novice license, but in a manner that's appropriate for the 21st century.''

The overall proposed ARRL license restructuring plan would more smoothly integrate HF spectrum privileges across the three license classes and would incorporate the ''Novice refarming'' plan the League put forth nearly two years ago in a Petition for Rule Making (RM-10413). The FCC has not yet acted on the ARRL plan, which would alter current HF subbands.

The ARRL license restructuring design calls for no changes in privileges for Extra and General class licensees on 160, 60, 30, 20, 17 or 12 meters. Novice licensees would have no access to those bands.

See ''ARRL to Propose New Entry-Level License, Code-Free HF Access'' on the ARRL Web site, www.arrl.org/news/stories/2004/01/19/1/, for the specific subband allocations ARRL is proposing for each class.
NNNN
/EX

1018. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 13:09:55 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <100sukit91ipr5c@corp.supernews.com>
Source record: 101489

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:hBdPb.92880$nt4.225549@attbi_s51...
> Cecil Moore wrote:
>
> > Craig Buck wrote:
> >
> >> I was talking about radiation efficiency taking into account the ground
> >> losses. The ARRL Antenna Book equation is Efficiency = Radiation
> >> Resistance
> >> divided by the sum of Radiation Resistance + Ground loss + Coil loss.
> >> Plug
> >> in a 6 ohm ground loss and whatever you want to assume for the coil
loss.
> >> The higher the radiation resistance the higher the efficiency. No?
> >
> >
> > For an 8 ft center-loaded whip on 75m, the ARRL Antenna Book gives 0.8
ohms
> > as the radiation resistance and 22 ohms as the feedpoint impedance.
That's
> > an efficiency of about 3.6%, about 4 watts radiated for 100 watts input.
>
> Keeping Ground Loss and Coil Loss constant and increasing the radiation
> resistance from 0.8 ohms to 1.6 ohms changes the efficiency to 7%. Hmmm
> ... the higher the radiation resistance the higher the efficiency!!
>
In all the cases I reported the antennas were on the same ball on the same
truck: ground losses were a constant.
They were all of comparable length, the Hustler a bit shorter than the
screwdriver, the bugcatcher a bit longer, but comparable radiation
resistances; about an ohm.
The lower the loss resistance the higher the efficiency, which gets back to
the ~10 ohms of the screwdriver;
Comparing that to the ~20 ohms of the Hustler and bugcatcher leads me to
suspect the difference is in the loss resistance which is consistent with
observed performance on the air.
With my 200 watt mobile rig I should radiate about 16 watts on 80!
;^)
73
H.
NQ5H

1019. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 13:47:15 UTC
From: jaroslavlipka@msn.com
Message-ID: <d7855f42.0401210547.b1d7731@posting.google.com>
Source record: 101490

'Doc <w5lz@cwis.net> wrote in message news:<400DCDB1.6A84B998@cwis.net>...

Doc,
you are so full of s**t

The idea of this group is to exchange and/or discuss idea's
and thoughts,and to give or receive advice in regards to antenna's,
It must be obvious to most readers of this group by now that when it
comes to postings from Art you are incapable of any of the above.
May i suggest that if you cannot resist attacking the man and not
the message then,as a better man than i said "a period of silence
from you would be very welcome".
Jaro

1020. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 14:05:25 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <400d3025$1_7@newsfeed.slurp.net>
Source record: 101491

Jimmy, I don't see the connection between "resonant" and "1/4-wavelength",
at least from what you posted. And, in this universe, 4 ft. is NOT 1/4 on
10 meters...

- KI6PR
El Rancho R.F., CA

"Jimmy" wrote
> Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
> if it is physically only 4ft long or would this be an 1/8 wavelength
> antenna(more or less).I am saying this should be called an 1/8 wl antenna
> though I am arguing with those who generally know more more about this
than
> I. Not all the old timers disagree with me, so I am betting this is a
pretty
> common problem when discussing antennas.
>
>

1021. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 14:18:08 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <ASvPb.115062$8H.268852@attbi_s03>
Source record: 101492

In the driver's two hands!!!!!!!!!!!!

'Doc wrote:

>
> Dave,
> But, where's the rotor?
> 'Doc

1022. Mob Ant memory ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 14:57:24 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <100t4qv9la6m283@corp.supernews.com>
Source record: 101493

Sometime ago I recall seeing an article about a mobile antenna where the ham had a variable capacitor in the trunk with a flexible cable routed so the driver could adjust it. There was a picture of it and IIRC it was a 50s car. The same article was reprinted in another issue and I can;'t find either. Does anyone recall this who can help me with the date and issue?
tnx
hank wd5jfr

1023. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 15:08:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400e96b2_5@corp.newsgroups.com>
Source record: 101494

H. Adam Stevens, NQ5H wrote:
> Comparing that to the ~20 ohms of the Hustler and bugcatcher leads me to
> suspect the difference is in the loss resistance which is consistent with
> observed performance on the air.

There's something wrong with the bugcatcher feedpoint impedance
unless there was a matching coil, cap, or transformer at the base.
Did you have any coils shorted out on the loading coil for tuning
purposes? Shorted coils lower the Q.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1024. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 15:18:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400e98e6_5@corp.newsgroups.com>
Source record: 101495

Mark Keith wrote:

> "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote:
>>band Hustler Screwdriver 103"/BugCatcher/54"
>>80 21 ohms 9 ohms 23 ohms
>>I really thought the huge bug catcher would do better.
>
> I'm not sure if I'm getting the problem. Is the bugcatcher failing to
> perform?

With that much whip and base section, the bugcatcher coil probably
had shorted turns to raise the resonant frequency. It is well known
that shorted turns on a high-Q coil lowers the Q. (Try a shorted turn
on an iron core choke.)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1025. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 16:13:56 UTC
From: richardharrison@webtv.net
Message-ID: <4171-400EA544-101@storefull-3254.bay.webtv.net>
Source record: 101496

Art, KB9MZ wrote:
"What is going on between the real world and what is written in books?
He He!"

Often, execution of what`s written is done poorly. If antenna performance on the band for which an antenna is designed improves when part of the antenna is removed, it`s likely due to poor design or poor implementation, or both.

Books are usually carefully done because a mistake is very exposed and is likely to be around on view for a very long time.

Art`s quixotic quest is now for high performance in a miniature antenna. I think he wants someone to describe it for him to patent. Such hopes may derive from the observation that gain from parasitic elements in an antenna is optimum with close spacing. Driven arrays such as the W8JK also get gain from close spacing. A price is paid for close spacing. Mutual impedance between elements (coupling) goes up. This reduces radiation resistance and drivepoint resistance. A low radiation resistance is less significant as a part of an antenna`s total resistance. It hurts efficiency. A low drivepoint resistance often requires lossy coils to match to a power source.

If shorter elements are used to try to shrink an antenna, they may have low radiation and drivepoint resistances which cause the same inefficiencies as closely coupled elements.

Stack elements vertically and more space is required. Place elements end to end and they require a longer space. Put elemants in a plane for an end-fire array and even with close spacing, more space is required.

It`s not unusual to yearn for the unattainable but it may be unrealistic to expect an antenna which is tiny, efficient, made of ordinary materials, and uses ordinary construction techniques.

Let`s see, if we could only replace the less effective parts of an antenna with parts like the more effective parts---hummmm!

Best regards, Richard Harrison, KB5WZI

1026. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 17:32:30 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <400EB7A4.2FD3C0C1@earthlink.net>
Source record: 101497
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Dave Holford wrote:
>
> "Michael A. Terrell" wrote:
> >
> > Dave Holford wrote:
> > >
> > > I hear it fine with several different receivers provided I use either CW
> > > or SSB. But! I CANNOT hear it on my IC-706; it does not seem to come
> > > alive until somewhere between 200 and 300kHz.
> > >
> > > Dave

Look at the design of the front end. If it is capacitor coupled, the capacitive reactance is so high that it blocks anything below 200 KHz. In this case you can add another cap in parallel to improve the lower frequencies. Multiply the original by 100 or higher, and add it in parallel to reduce the capacitive reactance, and the attenuation. I built a broadband DC block for my bench at Microdyne that had five caps in parallel. It was flat to less that a half dB from 50 KHz to 450 MHz, and had a VSWR of less than 1.05 across the entire range. It was built to maintain a 50 ohm impedance end to end.

If it has a transformer, the losses are too high at low frequencies. In that case I would build a low pass filter and pre amp, and couple it to the input of the mixer to see how it performs. You would have to shut it off to use other bands, though.

> > Try using a HP312 series Frequency Selective Voltmeter for the
> > receiver.
> >
> > Build a 60 KHz tuned loop and look at it with a scope. You can see
> > the modulation, because it is so slow. It is a CW signal with a 10 dB
> > gain reduction modulation with a maximum level change of twice per
> > second. (Normal and -10 dB) I built a three foot square copper loop with
> > an insulator where it was mounted on a cast aluminum electrical box, and
> > wound 20 turns of wire inside the 3/4" copper pipe after it was soldered
> > together. I used an op amp to give some gain,. and I could watch the
> > modulation. The big problem was a neighbor about a half mile away left a
> > TV set on 24/7 and the horizontal oscillator drifted after the station
> > went off, and the harmonics would drift right through 60 KHz. I wanted
> > to use it for a frequency standard, but I couldn't do it there. I will
> > try it again, some day, now that I have a couple miles of woods between
> > me and Colorado. I have enough gain to get around 12V P-P at the power
> > inserter. I used 75 ohm cable and "F" fittings because they were handy,

> > but I would use Mini Circuits MMICs and 50 Ohm cable if I built another
> > outdoor 60 KHz antenna.
> >
> > --
> > We now return you to our normally scheduled programming.
> >
> > Take a look at this little cutie! ;-)
> > http://home.earthlink.net/~mike.terrell/photos.html
> >
> > Michael A. Terrell
> > Central Florida
>
> I have no problem receiving it on a number of different Ham and General
> Coverage receivers using random wires or simple vertical whips. I also
> hear it well with an active antenna. I have not noticed any real QRM
> problems on 60kHz although there are some really strong noise sources at
> other frequencies nearby.
>
> Dave
> 45N 75W

They only signals I saw were WWVB, and that damned TV's harmonics
drifting through 60 KHz after the station went off the air. The guy was
only there a couple days a month, and left the TV on to make people
think he was home.

--
We now return you to our normally scheduled programming.

Michael A. Terrell
Central Florida

1027. FC-20 Antenna Tuner broken on 10m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 18:13:24 UTC
From: Simon <nahidontthinkso@somewhere.com>
Message-ID: <8jzPb.5908$KV.70073452@news-text.cableinet.net>
Source record: 101499

Hi,

I'm using a Yaesu FC-20 ATU but find it won't work on (or near) the 10m band. IF I try to tune the tuner takes ages and the 'SWR bars' on the 100D seem to flicker as if there is a bad connection and then the tuner gives up. It's not because the antenna is a bad match because i've tried a windom with about 2-1 match and also a half-wave vertical whch is a good match at 1.5-1 but the tuner still can't 'see' this good match and won't tune.

Is there something in the tuner that is only used for 10m? Maybe a certain inductor with a bad connection/broken that when it tries to 'select' for 10m doesn't work? Or could it be the radio istelf? The tuner seems to work very well on all the other bands (though it can be quite slow and sometimes misses the best swr and finishes with 'two bars' for the match)

Thanks for any help,

Simon
gm1exk

1028. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 18:27:05 UTC
From: arrow146@aol.com
Message-ID: <20040121132705.21810.00000517@mb-m14.aol.com>
Source record: 101500

<< If the antenna is an electrical 1/4 wave then it is a 1/4 wave antenna, even if it is physically shortened by use of coils.>> Alex / AB2RC

If that is true, then there is no such thing as a 5/8 wave antenna. They would be 3/4 wave antennas.

Don't think so. 73 Al Lowe N0IMW

1029. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 19:02:35 UTC
From: Alex Flinsch <alex@localhost.localdomain>
Message-ID: <slrnc0tjd9.e0n.alex@homer.linux1.lan>
Source record: 101501

In article <20040121132705.21810.00000517@mb-m14.aol.com>, Arrow146 wrote:
><< If the antenna is an electrical 1/4 wave then it is a 1/4 wave antenna, even
> if it is physically shortened by use of coils.>> Alex / AB2RC
>
>
> If that is true, then there is no such thing as a 5/8 wave antenna. They
> would be 3/4 wave antennas.

since when does 5/8 = 3/4 ?
last time I checked, 3/4 = 6/8

>
> Don't think so. 73 Al Lowe N0IMW

1030. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 19:39:47 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <7AAPb.32243$cQ1.2193445@twister.southeast.rr.com>
Source record: 101502

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:400d9b2f_4@corp.newsgroups.com...
> Jimmy wrote:
>
> > Is an antenna that is resonant on 10 meters still a 1/4 wavelength
antenna
> > if it is physically only 4ft long or would this be an 1/8 wavelength
> > antenna(more or less).I am saying this should be called an 1/8 wl
antenna
> > though I am arguing with those who generally know more more about this
than
> > I. Not all the old timers disagree with me, so I am betting this is a
pretty
> > common problem when discussing antennas.
>
> What you have is a *physically* short antenna that is *electrically*

Does this mean that I can call a 5/8 antenna a 3/4? I would think it should be one way or the other. I was really hoping for a more definative answer than I have gotten here so far as there is a signiificant quantity of beer at stake. I know what I have I just want someone to settle the argument on what it should be called. In other words, should we use physical length or electrical length to describe an antenna. It is my opinion that antennas should be referenced by there physical length otherwise we will be giving creedance to those who are trying to sell 5/8wl antennas that are physically only an 1/8wl long.

> 1/4WL long. This usually involves a loading coil.
>
> Also, the electrical length of a piece of coax is longer than it's
> physical length because of the velocity factor less than 1.0.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1031. WTB: Buddipole Antenna Pkg.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 19:56:51 UTC
From: Gary Brown <gbrown@nc.rr.com>
Message-ID: <7QAPb.267294$dl.14230894@twister.southeast.rr.com>
Source record: 101503
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna,alt.ham-radio.marketplace,rec.radio.amateur.equipment

Looking for one in excellent condition.

(the commercial version)

State price, condition, accessories delivered to ZIP 27513.

Thanks,
K4GPB - Gary

gbrown@nc.rr.com

1032. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 19:57:53 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <5RAPb.32246$cQ1.2195881@twister.southeast.rr.com>
Source record: 101504

"Arrow146" <arrow146@aol.com> wrote in message
news:20040121132705.21810.00000517@mb-m14.aol.com...
> << If the antenna is an electrical 1/4 wave then it is a 1/4 wave antenna,
even
> if it is physically shortened by use of coils.>> Alex / AB2RC
>
>
> If that is true, then there is no such thing as a 5/8 wave antenna. They
> would be 3/4 wave antennas.
>
> Don't think so. 73 Al Lowe N0IMW
Al, This was the basis of my thoughts on the subject too, Im the OP. Im of
the opinion an antenna shorter than 1/4 wll should either be identified by
its fractional wl dimension or as a loaded x freq antenna y units long.
Otherwise those who advertise 5/8 antennas that are physically 1/8wl long
have every right to do so.

1033. Re: Why do monitors flicker on TV?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 20:30:22 UTC
From: Volker Kerkhoff <volker@kadira-net.com>
Message-ID: <tget00do2v3tkbpchlmvjae0i676b2fsbk@4ax.com>
Source record: 101505

On Mon, 19 Jan 2004 03:37:46 GMT, Mike Coslo
<mcoslo@enoughalreadyadelphia.net> wrote:

> It is a source of great amusement to listen to people dissing one or
>the other - NTSC or PAL, or even SECAM.
>
> They all suck very much. Trying to decide which one sucks the most is a
>waste of time.

Most probably correct. And what disturbs me most is that nobody has
come up with something better available to the consumer "in general" I
mean, maybe I'm expecting too much from an industry that has not been
able to control "ghosting" effects in the end credits (white lettering
on black background) on a reasonably new TV set when fed with S-Video
from a digital source.

OTOH, SECAM is a bit more complex than NTSC or PAL. To the best of my
understanding, they actually send the chroma portion of the signal
after the luminance, so sets that are fit for SECAM gotta have a
delay line somewhere to brinc Chroma and Luminance back together,
IIRC?

And what about and adaption of "our" SSTV standards to "Fast Scan"
television? Would that work within reasonable parameters?

Volker

1034. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 20:34:44 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400EE264.97B86A9B@cwis.net>
Source record: 101506
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Gee... I thought the last restructuring was to streamline
the license classes, get rid of the under utilized 'entry'
class license(s), simplify things. Wasn't that the reasoning?
Now here we go 'cluttering' it up again.
Lets see, an 'entry' class license is to 'give people a
taste'
of ham radio, see if they like it, sort of an 'easy start'
license,
right? Seems like I've heard of that before (a few times,
actually).
Wasn't that what a couple of the licenses that got dumped in the
last restructuring were? And by all means, lets give that
'entry'
license a glitzy name so no one will recognize it for what it
is,
wouldn't want to make it obvious, would we? Make it easy for
others
to distinguish between them and the other licensee's? I mean,
you
wouldn't want to be able to 'point a finger' at operators who
are
out of bounds, for instance.
To me, an 'entry' class license shouldn't be 'for ever',
there
should be a reason to up-grade, right? How about making it for
a
limited duration, and non-renewable? Hmmm, where have I heard
that
before? (But you know what, it worked! Oh well, that's a good
reason
not to do it that way again, isn't it?)
What's the matter 'Mr. ARRL'? Not getting that 'huge' influx
of
new hams to buy your magazine? Don't you ever learn anything?
How
about doing what you're supposed to be doing? Hey, that would
be a
refreshing change!
'Doc

1035. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 21:48:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bums3keei1@sparta.btinternet.com>
Source record: 101507

To avoid misunderstandings, which often end up in vicious arguments, there
is no alternative but to think about it and say exactly what you mean.

Then read what you have written and think AGAIN.

Avoid old-wives' jargon.

Have a free program.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

1036. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 22:00:05 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <100ttmkj6uo6dae@corp.supernews.com>
Source record: 101508

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:400e98e6_5@corp.newsgroups.com...
> Mark Keith wrote:
>
> > "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote:
> >>band Hustler Screwdriver 103"/BugCatcher/54"
> >>80 21 ohms 9 ohms 23 ohms
> >>I really thought the huge bug catcher would do better.
> >
> > I'm not sure if I'm getting the problem. Is the bugcatcher failing to
> > perform?
>
> With that much whip and base section, the bugcatcher coil probably
> had shorted turns to raise the resonant frequency. It is well known
> that shorted turns on a high-Q coil lowers the Q. (Try a shorted turn
> on an iron core choke.)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
Nope, the whole coil, I just found the resonance and noted the value of R.
73
H.
NQ5H

1037. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 22:07:13 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <100tu41mpvi90c2@corp.supernews.com>
Source record: 101510

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:400e96b2_5@corp.newsgroups.com...
> H. Adam Stevens, NQ5H wrote:
> > Comparing that to the ~20 ohms of the Hustler and bugcatcher leads me to
> > suspect the difference is in the loss resistance which is consistent
with
> > observed performance on the air.
>
> There's something wrong with the bugcatcher feedpoint impedance
> unless there was a matching coil, cap, or transformer at the base.
> Did you have any coils shorted out on the loading coil for tuning
> purposes? Shorted coils lower the Q.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
Nope
Just the Hustler base, the entire bugcatcher coil and a 103 " whip.
I expected it to be lower in impedance at resonance.
Now I've ordered a BBS screwdriver to see if the copper base is better than
aluminum.
Copper has about a tenth the resistance of aluminum, we shall see.
H.
NQ5H

1038. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 22:08:09 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <dLCPb.116661$I06.813043@attbi_s01>
Source record: 101509

The radiation patterns for a 1/4 and a loaded 1/8 wave should be
slightly different.

If so, ERGO! Two different antennas.

Boy, this stuff is tough! :-)

Jimmy wrote:

> Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
> if it is physically only 4ft long or would this be an 1/8 wavelength
> antenna(more or less).I am saying this should be called an 1/8 wl antenna
> though I am arguing with those who generally know more more about this than
> I. Not all the old timers disagree with me, so I am betting this is a pretty
> common problem when discussing antennas.
>
>

1039. Re: Trimming Antenna To Size -Confirm my measurement-

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 22:54:00 UTC
From: jder8745@aol.com
Message-ID: <20040121175400.11601.00000428@mb-m12.aol.com>
Source record: 101511

If there is a coil, maybe you cud just short it out with a piece of flexible wire.

It's been done.

73 de Jack, K9CUN

1040. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-21 23:26:29 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <100u2kv7qrcmdc5@corp.supernews.com>
Source record: 101512
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Pretty much agree with Doc, altho, after the last "restructureing", the value of a
license is worthless! And now, the league wants to degrade it even more ??
Why even have a test?? Just issue licenses on the back of cereal boxes, or inside
Cracker Jack boxes, or like about 45 years ago, when Popular Electronics issued
their SWL calls (Think mine was WPE7AYQ) !! Or, even better: Lets auction off
ALL THE SPECTRUM, for amateur bands to the highest bidders, and balance our federal
deficit! Then we can ALL share the blissful 40 channels in the eleven meter band!!
Maybe, also all those free band channels, up to, and sometimes includeing the CW segment
of 10 meters!! Yeh, that the (pardon the pun) TICKET !! NN7K Jim

"'Doc" <w5lz@cwis.net> sent:
> Gee... I thought the last restructuring was to streamline
> the license classes, get rid of the under utilized 'entry'
> class license(s), simplify things. Wasn't that the reasoning?
> Now here we go 'cluttering' it up again.
> Lets see, an 'entry' class license is to 'give people a
> taste'
> of ham radio, see if they like it, sort of an 'easy start'
> license,
> right? Seems like I've heard of that before (a few times,
> actually).
> Wasn't that what a couple of the licenses that got dumped in the
> last restructuring were? And by all means, lets give that
> 'entry'
> license a glitzy name so no one will recognize it for what it
> is,
> wouldn't want to make it obvious, would we? Make it easy for
> others
> to distinguish between them and the other licensee's? I mean,
> you
> wouldn't want to be able to 'point a finger' at operators who
> are
> out of bounds, for instance.
> To me, an 'entry' class license shouldn't be 'for ever',
> there
> should be a reason to up-grade, right? How about making it for

> a
> limited duration, and non-renewable? Hmmm, where have I heard
> that
> before? (But you know what, it worked! Oh well, that's a good
> reason
> not to do it that way again, isn't it?)
> What's the matter 'Mr. ARRL'? Not getting that 'huge' influx
> of
> new hams to buy your magazine? Don't you ever learn anything?
> How
> about doing what you're supposed to be doing? Hey, that would
> be a
> refreshing change!
> 'Doc

1041. Re: FC-20 Antenna Tuner broken on 10m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 00:04:07 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <100u4rdmj3kub35@corp.supernews.com>
Source record: 101513

Hi- Have the same tuner , on my FT-847 , and works great, even in excess of 4:1, on all bands.
Might be possible that (because of reactive components), even tho swr looks low, that they
causeing greif, OR might be bad component. Might try this: If you haven't got a dummy load,
beg, borrow, or buy one at least at your transmitter's output power. Connect your antenna tuner,
input, and, your tuner output port to your dummy load.
Now , turn on the tuner, and repeat, allowing it time to try to tune your 1:1 load to maximum.

IF it fails step 2, then probably has at least one bad component, has had arcing, or a cold
solder joint in it! Also, be sure to check your patch cable from xcvr to tuner!
Best of luck and 73, Jim NN7K

"Simon" <nahidontthinkso@somewhere.com>Sent:
>
> I'm using a Yaesu FC-20 ATU but find it won't work on (or near) the 10m
> band. IF I try to tune the tuner takes ages and the 'SWR bars' on the 100D
> seem to flicker as if there is a bad connection and then the tuner gives up.
> It's not because the antenna is a bad match because i've tried a windom with
> about 2-1 match and also a half-wave vertical whch is a good match at 1.5-1
> but the tuner still can't 'see' this good match and won't tune.
>
> Is there something in the tuner that is only used for 10m? Maybe a certain
> inductor with a bad connection/broken that when it tries to 'select' for 10m
> doesn't work? Or could it be the radio istelf? The tuner seems to work very
> well on all the other bands (though it can be quite slow and sometimes
> misses the best swr and finishes with 'two bars' for the match)
>
> Thanks for any help,
>
> Simon
> gm1exk
>
>

1042. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 00:11:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400f1603_8@corp.newsgroups.com>
Source record: 101514

H. Adam Stevens, NQ5H wrote:
> Just the Hustler base, the entire bugcatcher coil and a 103 " whip.
> I expected it to be lower in impedance at resonance.

What bugcatcher coil was it? Obviously not the big one. Is the
Hustler base the one that hinges? If so, it might not be
conducting properly.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1043. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 00:19:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400f17ae_8@corp.newsgroups.com>
Source record: 101515
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Jim wrote:
> Pretty much agree with Doc, altho, after the last "restructureing", the
> value of a license is worthless!

The only value in a license are the privileges granted. The privileges
granted haven't changed appreciably. I had full access to all ham bands
in 1953 and I still have full access to all ham bands in 2004. I lost
11m and 220 MHz but gained the WARC bands. The value of my license is
very close to what it was in 1953.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1044. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 00:38:17 UTC
From: "H. Adam Stevens" <hstevens@totalaccessNOSPAM.net>
Message-ID: <100u6vcm5c5ig15@corp.supernews.com>
Source record: 101516

Yes it is the "big one" but I suspect that, since I cobbled it together,
that R is a big issue.
I don't care since it isn't a realistic solution. I used it "parked mobile"
in 1970.
Comparing the Nott with the Tarheel should be fun.
H.
NQ5H

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:400f1603_8@corp.newsgroups.com...
> H. Adam Stevens, NQ5H wrote:
> > Just the Hustler base, the entire bugcatcher coil and a 103 " whip.
> > I expected it to be lower in impedance at resonance.
>
> What bugcatcher coil was it? Obviously not the big one. Is the
> Hustler base the one that hinges? If so, it might not be
> conducting properly.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1045. Re: FC-20 Antenna Tuner broken on 10m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 01:19:08 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400F250C.5F9C8FC3@cwis.net>
Source record: 101517

Simon,
Some auto tuners won't 'work' if the match isn't 'bad'
enough...
'Doc

1046. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 01:22:45 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400F25E5.C2D28EF1@cwis.net>
Source record: 101518

H.,
When you find out that the aluminum/copper base
makes no difference at all, can I have the one you
don't want?
'Doc

1047. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 04:46:12 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bunkil$anfr$1@news3.infoave.net>
Source record: 101419
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

We will determine the true worth, when the next set of rule changes, will
allow ARRL to auction licenses on E-Bay.

"Bill Turner" <noway@nohow.com> wrote in message
news:cr7u00pt2511q28md761fa5fagspac5kg8@4ax.com...
> On Wed, 21 Jan 2004 15:26:29 -0800, "Jim" <NN7K@Reno.Rmci.Net> wrote:
>
> >the value of a license is worthless!
>
> --
>
> Until you get hauled into court for transmitting without one. Then
> you'd find it quite worthwhile.
>
> --
> Bill, W6WRT
>

1048. Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 05:05:10 UTC
From: redstickham@yahoo.com
Message-ID: <d57d63e8.0401212105.41317f5f@posting.google.com>
Source record: 101420

Another ham gave me a homebrew PI network tuner he used to tuning single wire feed antennas. I'm planning to build a multiband antenna and feed it with twinlead or ladder line since it's less lossy than coax.

I'd like to make or buy a balun for this tuner. I don't plan to run more than 100 watts, and will probably start experimenting with QRP operating as well.

Any guidance is appreciated.

Red

1049. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 07:24:25 UTC
From: k9sqg@aol.com
Message-ID: <20040122022425.21736.00000313@mb-m25.aol.com>
Source record: 101421

Red,

Well, a balun at the antenna side of the tuner is what most people would do. Unless you use a link coupled or double balanced tuner, there really isn't much else of an alternative. 1:1, 2:1, 4:1, 9:1 or what? Well, you're going to see quite large impedance changes based upon what antenna you use and what bands you operate. You'll likely get a good match on some bands and not so good on other bands. I'd recommend a 4:1 balun as a compromise.

And don't forget those HF swap nets.

Best of luck and 73s,

Evan, K9SQG

1050. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 09:48:55 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <100v77plohl6f5c@corp.supernews.com>
Source record: 101422

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:400f1603_8@corp.newsgroups.com...
> H. Adam Stevens, NQ5H wrote:
> > Just the Hustler base, the entire bugcatcher coil and a 103 " whip.
> > I expected it to be lower in impedance at resonance.
>
> What bugcatcher coil was it? Obviously not the big one. Is the
> Hustler base the one that hinges? If so, it might not be
> conducting properly.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
Yes it's the big one; I suspect dirt in the threads.
It's an impractal monster anyway.
73
H.

1051. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 09:51:06 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <100v7brbmof0a32@corp.supernews.com>
Source record: 101423

"'Doc" <w5lz@cwis.net> wrote in message news:400F25E5.C2D28EF1@cwis.net...
> H.,
> When you find out that the aluminum/copper base
> makes no difference at all, can I have the one you
> don't want?
> 'Doc

So you have done the measurements?
And no, I'm gonna run two screwdrivers; Then I can talk to myself.
;^)))))))))))
H.

1052. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 10:19:54 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401220219.372671d9@posting.google.com>
Source record: 101424

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<400e98e6_5@corp.newsgroups.com>...
> Mark Keith wrote:
>
> > "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote:
> >>band Hustler Screwdriver 103"/BugCatcher/54"
> >>80 21 ohms 9 ohms 23 ohms
> >>I really thought the huge bug catcher would do better.
> >
> > I'm not sure if I'm getting the problem. Is the bugcatcher failing to
> > perform?
>
> With that much whip and base section, the bugcatcher coil probably
> had shorted turns to raise the resonant frequency. It is well known
> that shorted turns on a high-Q coil lowers the Q. (Try a shorted turn
> on an iron core choke.)

Shouldn't be that big a deal. I have some number of shorted turns on
mine all the time. Doesn't seem to hurt mine too much. Also my normal
"mast" is only wire . Not having a thick mast doesn't seem to hurt
much either in my case. Dunno...It still seems weird to me. That
bugcatcher should be the clear winner, unless the screwdriver is about
the same height, coil position, etc. MK

1053. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 10:31:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buo8q4$86k$1@sparta.btinternet.com>
Source record: 101425

You will need a 1:1 choke balun between the tuner and the balanced feedline
to the antenna.

Obtain an HF-quality ferrite ring, about 1.75 inches in diameter.
Permittivity around 200-400.

Wind on 8 or 10 turns of 18 or 20 gauge, stranded, flexible,
figure-of-eight, twin speaker cable.

This should cover the range 1.8 to 30 MHz.

Reg, G4FGQ

1054. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 10:31:50 UTC
From: "H. Adam Stevens" <hstevens@totalaccessNOSPAM.net>
Message-ID: <100v9o8t9gc5rd7@corp.supernews.com>
Source record: 101427

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0401220219.372671d9@posting.google.com...
> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<400e98e6_5@corp.newsgroups.com>...
> > Mark Keith wrote:
> >
> > > "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net> wrote:
> > >>band Hustler Screwdriver 103"/BugCatcher/54"
> > >>80 21 ohms 9 ohms 23 ohms
> > >>I really thought the huge bug catcher would do better.
> > >
> > > I'm not sure if I'm getting the problem. Is the bugcatcher failing to
> > > perform?
> >
> > With that much whip and base section, the bugcatcher coil probably
> > had shorted turns to raise the resonant frequency. It is well known
> > that shorted turns on a high-Q coil lowers the Q. (Try a shorted turn
> > on an iron core choke.)
>
> Shouldn't be that big a deal. I have some number of shorted turns on
> mine all the time. Doesn't seem to hurt mine too much. Also my normal
> "mast" is only wire . Not having a thick mast doesn't seem to hurt
> much either in my case. Dunno...It still seems weird to me. That
> bugcatcher should be the clear winner, unless the screwdriver is about
> the same height, coil position, etc. MK

I thought so too.
Must be the dirty threads.
Not at all realistic anyway.
I used the same bugcatcher configuration with a roof mount on a Pontiac in
1970; worked great but not in motion.
H.
NQ5H

1055. Re: mobile antenna impedance comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 10:32:08 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401220232.3eb92220@posting.google.com>
Source record: 101426

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
news:<400d3d51_3@news1.prserv.net>...
> I played with the Hustler when it was introduced, and got the impression it
> was a loser 40 years ago. I now wonder if that lower mast is purposely
> lossy. Or maybe just accidentally lossy and they ran with it. Looks good
> on SWR meters which hams are infamous for.

The hustlers I tried had pretty lossy coils. I've never seen any
problems with the solid masts, but I've never tried the folding type.
In theory, they should be ok also, unless they have a problem with
dirt or corrosion. But the coils....
I hate those things....I once did a comparison using a large 80m
resonator against the coil on my homebrew plastic bugcatcher. It wuz
ugly...My homebrew coil was much less lossy. I'll never use a hustler
coil for anything serious. And being I'm always serious, that means
never... :/ MK

1056. Re: Mob Ant memory ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 10:44:45 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401220244.27fa090@posting.google.com>
Source record: 101428

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:<100t4qv9la6m283@corp.supernews.com>...
> Sometime ago I recall seeing an article about a mobile antenna where the ham
> had a variable capacitor in the trunk with a flexible cable routed so the
> driver could adjust it. There was a picture of it and IIRC it was a 50s
> car. The same article was reprinted in another issue and I can;'t find
> either. Does anyone recall this who can help me with the date and issue?
> tnx
> hank wd5jfr

I haven't seen it, but the location of the cap isn't very critical. In
fact, it's my opinion it can even be up at the rig, in the drivers
reach. I've done this before and noted little excess loss. My feedline
was short though. I now have it at the antenna base though to minimise
even those small losses. But in practice, I hardly notice a difference
in performance. Usually when you use a cap alone as the matching
device, you are using a few turns of the loading coil as the
inductance. This extra inductance is just tacked on to what the
antenna requires to tune out the reactance. I don't really think it
matters where the cap is. It can be nearly anywhere. But the purists
will insist it being at the base of the antenna. I guess that is true
for least losses, but the difference between there, and up at the rig
, was hardly noticable in the real world. As far as a cap drive, maybe
an old speedometer cable? MK

1057. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 11:04:35 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401220304.2ee23a56@posting.google.com>
Source record: 101429

Alex Flinsch <alex@localhost.localdomain> wrote in message
news:<slrnc0tjd9.e0n.alex@homer.linux1.lan>...
> In article <20040121132705.21810.00000517@mb-m14.aol.com>, Arrow146 wrote:
> >>< If the antenna is an electrical 1/4 wave then it is a 1/4 wave antenna, even
> > if it is physically shortened by use of coils.>> Alex / AB2RC
> >
> >
> > If that is true, then there is no such thing as a 5/8 wave antenna. They
> > would be 3/4 wave antennas.
>
> since when does 5/8 = 3/4 ?
> last time I checked, 3/4 = 6/8

A 5/8 ground plane is tuned to a 3/4 wave resonance.
Myself, I think they should be described as their actual physical
length. That gives you a better idea of their true performance. If you
called a 5/8 antenna , a 3/4 wave, in my mind, the gain on the horizon
drops and higher angle lobes start to appear...Then you have the cases
of the "short" 1/2 waves...The shorty versions will never have the
gain that a true full size half wave will. Calling them 1/2 waves is
misleading. When I talk about my 10 ft tall mobile antenna, it's a 1/4
wave resonance anywhere I tune the antenna. But I don't go around
calling it a 1/4 wave...I call it a 10 ft center loaded vertical. In
my book, to be called a 1/4 wave, it needs to actually be a 1/4 wave
in physical length. I'd call his antenna, a 1/8 wave tall loaded
vertical.
MK

1058. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 14:32:44 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <400FDF0C.C3D026A4@cwis.net>
Source record: 101430

Reg,
I'm afraid your "figure-of-eight" lost me. What's
that?
'Doc

1059. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 14:44:08 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <buonjq$1hso$1@f04n12.cac.psu.edu>
Source record: 101431

I wonder if the guys that are claiming that the license is so easy to get could pass the test for their current grade? I bet a few of them would do a lot worse than they would ever admit to.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

"W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message news:bunkil$anfr$1@news3.infoave.net...
> We will determine the true worth, when the next set of rule changes, will
> allow ARRL to auction licenses on E-Bay.
>
> "Bill Turner" <noway@nohow.com> wrote in message
> news:cr7u00pt2511q28md761fa5fagspac5kg8@4ax.com...
> > On Wed, 21 Jan 2004 15:26:29 -0800, "Jim" <NN7K@Reno.Rmci.Net> wrote:
> >
> > >the value of a license is worthless!
> >
> > ____
> >
> > Until you get hauled into court for transmitting without one. Then
> > you'd find it quite worthwhile.
> >
> > --
> > Bill, W6WRT
> >
>
>

1060. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 14:46:26 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <buono1$14ec$1@f04n12.cac.psu.edu>
Source record: 101432

Here in the states we would call it lamp or Zip cord.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

"'Doc" <w5lz@cwis.net> wrote in message news:400FDF0C.C3D026A4@cwis.net...
>
>
> Reg,
> I'm afraid your "figure-of-eight" lost me. What's
> that?
> 'Doc

1061. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 15:07:24 UTC
From: mcalhoun@ksu.edu
Message-ID: <buoovc$c1v@unix2.cc.ksu.edu>
Source record: 101433
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

>> It's quite easy: your best bet is the maximum length of wire you can keep
>> in your backyard AND as high up in the air as you can afford (trees,
>> towers, chimneys etc.)

>Hmmmmm, my back yard is ten acres. :-)

Until wind toppled the tree at one end, my "dipole" went 275 feet SW
and 250 feet NE of the "center" feed point. Height was about 45 feet.

Someone once commented that the reason I "got out" so well was that,
by the time the RF reached the end of my antenna, it was already a
significant part of the distance toward its destination!-)

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

1062. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 15:30:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buoqbcjlu1@hercules.btinternet.com>
Source record: 101434

Figure-of-eight . . . .

Two circles stuck together. Outline of plastic insulation surrounding a
pair of close-spaced wires.

Zip-cord ?

Reg

--
....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....
"'Doc" <w5lz@cwis.net> wrote in message news:400FDF0C.C3D026A4@cwis.net...
>
>
> Reg,
> I'm afraid your "figure-of-eight" lost me. What's
> that?
> 'Doc

1063. MIMP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 15:54:26 UTC
From: jder8745@aol.com
Message-ID: <20040122105426.13670.00000278@mb-m27.aol.com>
Source record: 101435

Howdy,

I find the Motorola Impedance Matching Program a good design and analysis tool for matching networks. I recommend it.

73 de Jack, K9CUN

1064. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 15:57:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buorskmhu1@hercules.btinternet.com>
Source record: 101436

Is lamp or zip cord twisted with a fairly short lay?

The stuff I have in mind for baluns lays flat. Colourless. It may be sold as speaker cable.

It has lower copper loss then coax, easier waterproofed and constructed.

Reg

==========

> Here in the states we would call it lamp or Zip cord.
>

1065. ON4SKY needs images of your lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 16:20:16 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <400ff841$1_1@news.vo.lu>
Source record: 101437
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

Hi OM,

In order to complete a long article dealing with the lightning protection under construction for my website, I am searching quality images (JPG) showing installations of surge protectors (PolyPhaser, etc), single ground point, external grounding system, etc, preferably close-up pictures.

Of course as for all material published on my web, these images will stay under your name with a link to your website if relevant.
Contact me using my post form on my website at
http://www.astrosurf.com/lombry/post.htm.

Thanks in advance for your cooperation.

73's

Thierry
ON4SKY

1066. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 16:41:21 UTC
From: andrew <andrew@nospam.co.uk>
Message-ID: <ekz1NLAx0$DAFwSQ@gi0nwg.freeserve.co.uk>
Source record: 101438

In article <buonjq$1hso$1@f04n12.cac.psu.edu>, John Passaneau
<jxp16@psu.edu> writes
>I wonder if the guys that are claiming that the license is so easy to get
>could pass the test for their current grade? I bet a few of them would do a
>lot worse than they would ever admit to.

As an ARRL Volunteer Examiner, I think the multiple guess tests are far
too easy. But, that is what is mandated to be the standard so that is
what we as examiners have to test!!!

Before the last restructure I always used to think the Advanced test was
the most difficult *technical* exam, but of course they done away with
that because it caused a major stumbling block for a lot of fairly non-
technical people trying for an Extra license. Isn't Amateur Radio a
technical pursuit? So shouldn't we be examining at the appropriate
technical level? Currently, we are not. The same happened with the
20wpm Morse test which they made a joke of by lowering it to 5wpm and
now they are killing it off completely. Maybe that was stopping people
getting to the top level when they weren't prepared to put in the
effort. That would never do in this day of 'everything for nothing'.

Welcome to the world of mediocrity which the RSGB in this country have
been pursuing for years by trying to kill off Morse testing (even though
the majority of their members voted to keep it!!!!!!). Of course, like
the squeaky wheel, they won in the end......

RIP Amateur Radio as a technical pursuit.

Andrew Williamson GI0NWG / AC6WI
Homepage = http://www.gi0nwg.freeserve.co.uk/

One of the ZL9CI gang
http://www.qsl.net/zl9ci/

1067. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 16:43:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <400ffe59$1_2@corp.newsgroups.com>
Source record: 101439

Reg Edwards wrote:

> Is lamp or zip cord twisted with a fairly short lay?
>
> The stuff I have in mind for baluns lays flat. Colourless. It may be sold as
> speaker cable.
>
> It has lower copper loss then coax, easier waterproofed and constructed.

Reg, is that superior to coax wound on the same toroid?
I use RG-400 teflon coax for my baluns.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1068. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 17:08:14 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4010037E.1EDDBD9F@cwis.net>
Source record: 101440

Reg,
Okay, now I understand what you're talking about.
For a while there, I thought you may have been talkng
to Mr. Moebus...?
'Doc

1069. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 17:35:40 UTC
From: arrow146@aol.com
Message-ID: <20040122123540.22686.00000338@mb-m19.aol.com>
Source record: 101441

<< > If that is true, then there is no such thing as a 5/8 wave antenna. They
> would be 3/4 wave antennas.

since when does 5/8 = 3/4 ?
last time I checked, 3/4 = 6/8 >>

Sense always.
A two meter 5/8 wave length (48") whip does not work
very well. A 3/4 wave length whip will tune
up fine (low SWR) but has a very high angle
of radiation, still does not work well.

Take 1/8 wave (about 9 1/2 inches) of the
3/4 wave and turn it into a coil. And you
end up with an antenna about 48" tall that works
real well. (5/8 wave = 48")

I guess if you want to follow the CB Hipe about
antennas, it's up to you.

You think a 3 ft. 11 meter antenna that claims to
be of 5/8 wave antenna, works like a true 5/8 wave
length Antenna - - I think I will stop here.

I have a lot more important things I should be doing.
Arrow Antenna lost its lease on our building, wo we
had to move. I have a lot of equipment to get hooked
up again so we can get back into the production of
real antennas.

73 Al Lowe N0IMW
ArrowAntenna.com
911 East Fox Farm Road. #2
Cheyenne, WY 82007

307-638-2369
Fax 307-638-3521

1070. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 18:05:32 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bup3giaos1@newshost.mot.com>
Source record: 101442

Thanks Bill. I was worried more about the (hopefully mild) attacks on the propensity to nit pick on words or (what almost seems like intentional) mis understanding due to the way terminology is used.

I haven't read all the other posts yet, but I made the decision to ignore this detail (loaded ant feed Z) since it didn't help the naming problem. I really try to address the OP's question without clouding it with other probably true, but very possibly confusing details.

Of course, there is no guarantee that the loading coil actually does get you to a zero reactance, thought we like to think we can do that -- and that was my assumption. I think I said, or at least wanted to imply that we try to get back to a zero reactance (a.k.a. resonance) and _that_ is "just like" the "real" 1/4 wave....and therefore, perhaps, that is why some may want to call it a 1/4 wave, but I am guessing what others think. I don't know who wanted to call it a 1/4 wave in the previous posts.

--
Steve N, K,9;d, c. i My email has no u's.

"Bill Turner" <noway@nohow.com> wrote in message
news:b5bt009pvtofdh5llo3tc9cco5sj8790v9@4ax.com...
> On Tue, 20 Jan 2004 17:48:28 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >...[gobs'n gobs snipped]
> ____
>
> An excellent explanation, Steve, but needing one correction. When
> adding a loading coil as above, the feed point resistance drops
> significantly, so it no longer appears to be "just like a 1/4 wave
> antenna".
>
> Otherwise, great post.
>
> For the benefit of the original poster, the word is "semantics".
>
> --
> 73, Bill W6WRT

1071. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 18:08:50 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bup3mp$b2l$1@newshost.mot.com>
Source record: 101443

Mikey,

You'll have to read more of the other posts. I particularly recommend
mine.

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:bukerj$e4g$1@newshost.mot.com...

If it is gone, I can re-post

--
Steve N, K,9;d, c. i My email has no u's.

"Mikey" <ki6pr@arrl.net> wrote in message
news:400d3025$1_7@newsfeed.slurp.net...
> Jimmy, I don't see the connection between "resonant" and "1/4-wavelength",
> at least from what you posted. And, in this universe, 4 ft. is NOT 1/4 on
> 10 meters...
>
> - KI6PR
> El Rancho R.F., CA
>
> "Jimmy" wrote
> > Is an antenna that is resonant on 10 meters still a 1/4 wavelength
antenna
> > if it is physically only 4ft long or would this be an 1/8 wavelength
> > antenna(more or less).I am saying this should be called an 1/8 wl
antenna
> > though I am arguing with those who generally know more more about this
> than
> > I. Not all the old timers disagree with me, so I am betting this is a
> pretty
> > common problem when discussing antennas.
> >
> >
>
>

1072. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 18:11:53 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bup3sh$b9e$1@newshost.mot.com>
Source record: 101444

WHOA!! Now, you didn't mention the beer before. Let me know if my
explanation helped...and what my cut of the beer is. I pasted the message
ID if it is gone, or I can re-post.

--
Steve N, K,9;d, c. i My email has no u's.

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:bukerj$e4g$1@newshost.mot.com...

"Jimmy" <Gfender@carolina.rr.com> wrote in message
news:7AAPb.32243$cQ1.2193445@twister.southeast.rr.com...
>
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:400d9b2f_4@corp.newsgroups.com...
> > Jimmy wrote:
> >
> > > Is an antenna that is resonant on 10 meters still a 1/4 wavelength
> antenna
> > > if it is physically only 4ft long or would this be an 1/8 wavelength
> > > antenna(more or less).I am saying this should be called an 1/8 wl
> antenna
> > > though I am arguing with those who generally know more more about this
> than
> > > I. Not all the old timers disagree with me, so I am betting this is a
> pretty
> > > common problem when discussing antennas.
> >
> > What you have is a *physically* short antenna that is *electrically*
>
> Does this mean that I can call a 5/8 antenna a 3/4? I would think it
should
> be one way or the other. I was really hoping for a more definative answer
> than I have gotten here so far as there is a signiificant quantity of beer
> at stake. I know what I have I just want someone to settle the argument on
> what it should be called. In other words, should we use physical length or
> electrical length to describe an antenna. It is my opinion that antennas
> should be referenced by there physical length otherwise we will be giving
> creedance to those who are trying to sell 5/8wl antennas that are
physically
> only an 1/8wl long.
>
> > 1/4WL long. This usually involves a loading coil.
> >
> > Also, the electrical length of a piece of coax is longer than it's

> > physical length because of the velocity factor less than 1.0.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 100,000 Newsgroups - 19 Different Servers! =-----
>
>

1073. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 19:36:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bup8ofcbn1@titan.btinternet.com>
Source record: 101445

> Reg, is that superior to coax wound on the same toroid?
> I use RG-400 teflon coax for my baluns.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
==========

Just compare the coax inner conductor diameter with the 18-gauge wire of the zip-cord. Conductor resistance is inversely proportional to wire diameter.

Furthermore, the transition from 50-ohm to open-wire line is less abrupt. In theory, the impedance of the line wound on the transformer should be intermediate between coax Zo and open-wire Zo.

On the other hand, the difference in loss due to either effect is hardly detectable. The length of line involned is too small to make much difference. I shouldn't bother changing the design.

I can't imagine how the coax got in there in the first place.

Reg, G4FGQ

1074. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 20:29:08 UTC
From: chris-google@pobox.com
Message-ID: <ba42132e.0401221229.4d8f74d3@posting.google.com>
Source record: 101446
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Ivan wrote:
> try to make a rectangular coil, about 1 ft x 1 ft, some 30 turns wound
> by a fairly thin magnet wire (#25 to #30). Bring it into resonance at
> 60 kHz by a capacitor, some 8000 - 10000 pF. Place the coil
> vertically, aiming to the transmitter, and place the clock to its
> center. You do not need any mods of the clock. The signal should be
> significantly stronger.

Now, just so I understand you correctly, you're saying I don't
actually connect this loop antenna to the clock? I just place the
clock in the center of it, and the loop antenna (I guess) induces a
stronger signal in the clock's internal antenna? Wow, I'd love that.
As for the loop ends, I just connect them together across the cap?

And when you say "vertically, aiming to the transmitter", you mean
that the plane of the loop intersects with the transmitting station,
right? That is, I don't point the *face* of the loop at the
transmitter, I point the edge towards it. Right?

So, anyway, I'm making an antenna. Alright :) I downloaded and
played with Reg's program and have a configuration that might work
well.

Can I stack wire turns, and if not, why not? It seems that all the
designs have the wire turns lined up next to each other like:

*****

and never

*****
*****
*****

Is there something about keeping each loop *exactly* the same
circumferential length (not even 0.2% difference) that dramatically
affects loop antenna performance? Or some other affect?

I'd like to fill a 5mm x 5mm cross section with wire turns, which
means stacking them.

1075. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 20:35:27 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4010340F.E0AFA53C@cwis.net>
Source record: 101447

Arrow,
One of those important things might be to explain to
me how 9 1/2" is a 1/8 wave at what frequency? I thought
we were talking 10 meters...
'Doc

1076. Re: Mob Ant memory ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 20:53:57 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <1010e3flh99na9b@corp.supernews.com>
Source record: 101448

Found it, Ham Radio June 1981...
A bit newer than I recalled!
hank
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:100t4qv9la6m283@corp.supernews.com...
> Sometime ago I recall seeing an article about a mobile antenna where the
ham
> had a variable capacitor in the trunk with a flexible cable routed so the
> driver could adjust it. There was a picture of it and IIRC it was a 50s
> car. The same article was reprinted in another issue and I can;'t find
> either. Does anyone recall this who can help me with the date and issue?
> tnx
> hank wd5jfr
>
>
>

1077. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 21:07:41 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bupe6bqdu1@newshost.mot.com>
Source record: 101450

Perhaps this should be another thread, but digression is the order of the day here on Usenet... SO, Steve continues.

RE: "Electrical vs. physical length of an antenna." I am going to pick on this bone here and stick my neck out. Correct me if I'm wrong (Like I have to say that here...) I think there are two posters, Alex and Cecil who used the term "electrical Length" in reference to antennas (copied below) and like its correctness. I haven't personally focused on this use of the term until now because I knew what was _meant_ when it was used, but after some thought I feel this is a very misleading use of the term. Particularly for the beginner. Here goes...

In a previous post, I talked about a "physically short" antenna that was then "tuned" by adding some kind of a "loading" device. Here, "physically short" means that it is shorter than: some other length, which , naturally has no reactive drive impedance. A half wave dipole, that we are all familiar with, being the simplest to understand. This is what I am calling a "natural length" antenna which has no reactance in its drive impedance.
This antenna _IS_ a half wave long (don't nit pick about end effects, etc., please) It naturally resonates - by this we all (I hope) mean that it looks all real with no reactance - or zero phase between V and I.
NOW, we cut some off the antenna and "shorten" it. It is no longer 1/2 lambda long.
Whoa! it has some reactive part in the drive Z. AND it ain't the usual 72 ohms, or whatever, for the real part either. !

Cripes ! now what do we do ? (obviously inserting the rhetorical question). We all know that an antenna Z just has to be all real, right? Well that's another thread, because it doesn't have to be, but let's shelve that one for later. Let's say that we REALLY want an all resistive drive Z, and that's ok. Well, being experts in using one reactance to cancel another, we just put another with the opposite sign in series and presto...all resistive. DONE.

OOPS The real part ain't 72 ohms anymore! WA-HAPPEN" ?? Well, most of you know. This shortened antenna ain't 72-jx ohms when we cut it up, it went to something like 40-jx ohms and all we sis was strip off the -jX to leave the 40 ohms real.

So let's look at this. We now have an antenna that is certainly not a 1/2 wavelength long any more RIGHT???

AND... to make matters worse...

The real part we wound up with ain't 72 ohms any more either, RIGHT ??

SO how in blazes can we say that this, in any way, shape or form resembles a 1/2 wave antenna !huh? huh! tell me, huh?

Well, the only way is that we got it to be "resonant". and the 1/2 wave is resonant.... Well, that doesn't work with the mental model I have in my brain, buster.

Someone might like to say that we took the wire we cut off and wound it up into a coil and stuck it back on, so we still have a 1/2 wave total. Except my extremely educated and experienced (not to mention arrogant) gut tells me that you're going to have quite a bit of wire left over when you get all the X out. So there must be more to the story.

WAIT ! WAIT ! you say. Do we _NOT_ talk about electrical length and physical length when on the subject of transmission lines, huh? huh? say it now...we DO don't we? you can't deny it, can ya?....

Hold on there partner, I say. You're mixing your apple basket with the bananas. There's a glitch in the nomenclature soup.
Chew on this for a while. Transmission line has a physical length, yes, but measured in feet, inches and the like....right. This is a physical length measured in the 3 dimensional space we all have grown to know and love.

HOWEVER, transmission line has electrical length measured in ...fanfare please... DEGREES. Degrees ain't a length. We can equate it to some ruler length, but that is not what we are after in this case. Well, we know that we need to be talking about the wavelength of our signal when it is in the transmission line. That is what matters, not the physical length, because the wave length in the transmission line is shorter than in air. We need to know where on the _wave_ we are, because we are concerned about phase at this point. So we CAN relate a specific PLACE on the line which gets us to the Phase we want.

Now for the final muddy water exercise...

If we desire to keep this term and use it consistently, then we must talk about the electrical length in _degrees_, no?
BUT, BUT, BUT you say... half a wave length is 180 degrees, so therefore it is ok to use the wavelengths measure for this thing called "electrical length".

OK, lets go there... Lets talk about what we could call an "electrical length" for this antenna. How many _degrees long_ is the aforementioned shortened antenna?
Just so you are sure to know: Here's the final mud.

What two points are YOU going to use for this "Electrical length" In other words; Just what is the antenna?...The radiator only? The radiator AND the coil. Does the coil radiate, is it or is it not part? Take your pick.

In other words, this is a highly questionable and indefinite and confusing way to talk about an antenna. I don't think "electrical length" should be used for an antenna. I don't think it makes sense because you are really talking about, in the first approximation, whether you have gotten back to

you favorite place called resonance --nothing more -- - which has nothing to do with length, but rather impedance matching with (usually) lumped elements. And besides, how do you KNOW with 100% certainty that this "shortened 1/2 wave" [let's say a 32 ft dipole on 40M] has been "lengthened" (by use of loading coils) to 1/2 wave length rather than, say oh, I don't know...3/2 "electrically"??

[[yea, yea. I know there has been a never ending thread on here about what's going on in the antenna loading coil---current at the ends, phase and probably a zillion other things with words flying all about]]

For a transmission line it is all very clear. For antennas, there are miles of room for confusion so my vote is to - cut that out with the beginners

My brain hurts--why do I do this....
--
73, Steve N, K,9;d, c. i My email has no u's.

The two posts in question
==========
In article <v3gPb.265031$dl.14023428@twister.southeast.rr.com>, Jimmy wrote:
> Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
> if it is physically only 4ft long or would this be an 1/8 wavelength

If the antenna is an electrical 1/4 wave then it is a 1/4 wave antenna, even if it is physically shortened by use of coils.

Alex / AB2RC
==========

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:400d9b2f_4@corp.newsgroups.com...
> Jimmy wrote:
>
> > Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
> > if it is physically only 4ft long or would this be an 1/8 wavelength
> > antenna(more or less).I am saying this should be called an 1/8 wl antenna
> > though I am arguing with those who generally know more more about this than
> > I. Not all the old timers disagree with me, so I am betting this is a pretty
> > common problem when discussing antennas.
>
> What you have is a *physically* short antenna that is *electrically*
> 1/4WL long. This usually involves a loading coil.
>
> Also, the electrical length of a piece of coax is longer than it's
> physical length because of the velocity factor less than 1.0.
> --
> 73, Cecil http://www.qsl.net/w5dxp

>

1078. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 21:13:30 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <bupedt$1m12$1@f04n12.cac.psu.edu>
Source record: 101449

In a 1:1 current balun, you would want the Z of the line in balun to be the same as the transmission line i.e. 50 ohms not some Z in the middle. If it is different it will do an impedance transformation of the load Z based on the Z of the line in the balun, its length and frequency. In a 4:1 current balun the Z should be about 100 ohms. I don't know if zip cord or what ever you call it makes a 50 ohm open wire line. I think the spacing is to large. I know that #14 enameled wire close spaced does make a 50 ohm line. Anyway the difference in loss between #18 wire and RG-400 due to IR drop in the length of wire in a balun is too small to worry about.

John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:bup8ofcbn1@titan.btinternet.com...
> > Reg, is that superior to coax wound on the same toroid?
> > I use RG-400 teflon coax for my baluns.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
> ============================
>
> Just compare the coax inner conductor diameter with the 18-gauge wire of
the
> zip-cord. Conductor resistance is inversely proportional to wire
diameter.
>
> Furthermore, the transition from 50-ohm to open-wire line is less abrupt.
> In theory, the impedance of the line wound on the transformer should be
> intermediate between coax Zo and open-wire Zo.
>
> On the other hand, the difference in loss due to either effect is hardly
> detectable. The length of line involned is too small to make much
> difference. I shouldn't bother changing the design.
>
> I can't imagine how the coax got in there in the first place.
> ---
> Reg, G4FGQ
>
>

1079. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 21:50:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401045e6$1_2@127.0.0.1>
Source record: 101451

Steve Nosko wrote:
> And besides, how do you KNOW with 100% certainty that this
> "shortened 1/2 wave" [let's say a 32 ft dipole on 40M] has been
> "lengthened" (by use of loading coils) to 1/2 wave length rather than, say
> oh, I don't know...3/2 "electrically"??

One looks at the current distribution. The current at the end of a
wire is zero. 1/4 electrical wavelength (90 degrees) back from the
end of the wire, the current is at its maximum. That's at the lowest
purely resistive point. If that point is on the antenna, it is
electrically 90 degrees from the end of the antenna. If that point
is on the transmission line, it is electrically 90 degrees from the
end of the antenna.
--
73, Cecil, W5DXP

1080. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 22:30:38 UTC
From: jder8745@aol.com
Message-ID: <20040122173038.19027.00000567@mb-m28.aol.com>
Source record: 101452

Someone sed:

"In my book, to be called a 1/4 wave, it needs to actually be a 1/4 wave
in physical length."

==========

Yes! HELL yes.

(But then there's that darn Slinky."

73 e Jack, K9CUN

1081. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 22:38:21 UTC
From: jder8745@aol.com
Message-ID: <20040122173821.19027.00000568@mb-m28.aol.com>
Source record: 101453

But you have to remember that a 5/8 lamda whip is really trying to be a 1.25-lambda dipole with half of the dipole kind of provided by the perfect conductor infinite ground plane.

Just like a 1/4-lambda whip (vert) is similarly "equivalent" to a vertical 1/2-wave antenna.

A 1.25-lambda doublet (I won't call it a dipole for obvious reasons) has a nice broadside gain over a 1/2-wave dipole.

Hey, if you orient it vertical, you have an omnidirectional "beam".

"Load your downspout!"

Jack, K9CUN

1082. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 22:55:18 UTC
From: andrew <andrew@nospam.co.uk>
Message-ID: <8$yjQKAWTFEAFwvG@gi0nwg.freeserve.co.uk>
Source record: 101454

In article <210010puqs1plblgul6ju0o1j3obpbf0c4@4ax.com>, Bill Turner
<noway@nohow.com> writes
>On Thu, 22 Jan 2004 16:41:21 +0000, andrew <andrew@nospam.co.uk> wrote:
>
>>RIP Amateur Radio as a technical pursuit.
>
>_____
>
>I sympathize with your feelings Andrew, but Amateur Radio is changing
>and there's little we can do about it.
>
>I have homebrewed more stuff than I can remember but those days are
>gone. I am proud of the complete 40 meter mobile SSB rig I designed and
>built from scratch, but I would not expect anyone these days to
>duplicate the feat. It's just not cost-effective and the technology is
>so much better now besides.
>
>We need to focus on what Amateur Radio needs to become and not get
>dragged down by pining for the olden days.
>
>Although a little reminiscing now and then is ok by me. :-)

Hi Bill,

Don't get me wrong, I'm not suggesting that everyone should be able to design and build a transceiver from scratch (I know I couldn't). However, I do have enough knowledge to troubleshoot and fix problems when I let the smoke out of something!!!

Personally, I believe that in a technical hobby the participants should at least have a reasonable technical knowledge so they can understand what they are doing instead of ignorantly causing untold QRM after they've twiddled pots inside the radio. The current examining system is not testing for that, and they are now going to make it even easier.....

If it was as easy to get a driving licence as it is to get a ham licence today, there would be absolute carnage on the roads because the new drivers would have no knowledge about the theoretical side (i.e. the highway code in the UK or whatever the equivalent is in the States). If people don't want to put the effort in to learn the technical side then they should stick to the area of the radio hobby that uses type approved equipment (i.e. CB). Come to think of it, the new M3 licence in the UK is restricted to using type approved equipment... Hmmmm.

One other thing, I don't really pine for the 'old days' as the old days of amateur radio to me is around 1990 when I was licensed (I'm still

only 33 years old) :)

Andrew Williamson GI0NWG / AC6WI
Homepage = http://www.gi0nwg.freeserve.co.uk/

One of the ZL9CI gang
http://www.qsl.net/zl9ci/

1083. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 23:05:48 UTC
From: arrow146@aol.com
Message-ID: <20040122180548.18962.00000660@mb-m28.aol.com>
Source record: 101455

<< Arrow,
One of those important things might be to explain to
me how 9 1/2" is a 1/8 wave at what frequency? I thought
we were talking 10 meters...
'Doc >>

Hello, Doc
As quoted below 2 meters (146 MHz.)
I use two meters because I have all the numbers in
my head, I don't have to use a calculator.
I don't make 10 meter antennas.

73 Al Lowe N0IMW

<<A two meter 5/8 wave length (48") whip does not work
very well. A 3/4 wave length whip will tune
up fine (low SWR) but has a very high angle
of radiation, still does not work well.

Take 1/8 wave (about 9 1/2 inches) of the
3/4 wave and turn it into a coil. And you
end up with an antenna about 48" tall that works
real well. (5/8 wave = 48") >>

1084. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 23:18:59 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <oSYPb.1618$L04.1248@bignews4.bellsouth.net>
Source record: 101456

"Howard" <#mensch90249@yahoo.com> wrote in message
news:rn7s00dpub4qtg5vnvdtsu02p1u99i4r8s@4ax.com...
> On Wed, 21 Jan 2004 02:04:17 -0000, dplatt@radagast.org (Dave Platt)
> wrote:
>
> >>Dave,
> >> But, where's the rotor?
> >> 'Doc
> > >
> > >I was assuming that he'd gimballed the lower joint, and lets the wind
> > >loading spin it ;-)
> >
> > Nope, you are driving the rotor 8-} Need to aim the beam ..... just
> > turn the steering wheel! The lower joint is gimballed and when it
> > rotates it 'adds signal strength' due to the mv*2 factor. The only
> > downside is that it ends up cancelling the 'roger beep'. C'mon folks,
> > start putting that fancy radio science to work so you can properly
> > analyze these grand innovations.
> >
> > Don't know about your neck of the woods, but here in Southern
> > California these past few years I've seen a growing number of CB
> > antennas on big rigs and pickup trucks that have HUGE coils, really
> > thick 'radials' just below the coils and whips that are stout as heck.
> > Probably won't be long before I see a "star gun" - just hope I don't
> > laugh so hard I get in an accident.

I tried to explain to some of the guys on rec.radio.cb that
that antenna is no more "beam" that a boar hog with teats.
I was met with blistering comment from some of the resident experts. LOL!!

Jerry

1085. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 23:38:45 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40105fbb_8@corp.newsgroups.com>
Source record: 101457

Jerry Oxendine wrote:
> I tried to explain to some of the guys on rec.radio.cb that
> that antenna is no more "beam" that a boar hog with teats.
> I was met with blistering comment from some of the resident
> experts. LOL!!

Well Jerry, it looks like a beam - just not for 11m.
Maybe 440 MHz?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1086. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-22 23:58:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bupo3s$ln5$1@sparta.btinternet.com>
Source record: 101458

> Anyway
> the difference in loss between #18 wire and RG-400 due to IR drop in the
> length of wire in a balun is too small to worry about.
>
> John Passaneau, W3JXP
> Penn State University

==========

Just like I said !

But a 1:1 choke balun has an indeterminate transformation ratio.

1087. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 00:21:29 UTC
From: "Dan Richardson"
Message-ID: <a6q0105viprtv7ikg51k2je161sf85dgcm@4ax.com>
Source record: 101460

On Thu, 22 Jan 2004 10:43:15 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>I use RG-400 teflon coax for my baluns.

I've done that too, however, the other day I was made aware of
teflon's problems with cold flow. You might want to look into that.

Danny, K6MHE

1088. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 00:45:32 UTC
From: kashe@rahul.net
Message-ID: <ajr0105j4r434h0tskjkfsr2nnh2120svl@4ax.com>
Source record: 101459

On Thu, 22 Jan 2004 15:30:52 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Figure-of-eight . . . .
>
>Two circles stuck together. Outline of plastic insulation surrounding a
>pair of close-spaced wires.
>
>Zip-cord ?
>---
>Reg

Apparently because when you separate the two at the thin part
at one end, you can just zip it apart easily as far as needed.

1089. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 00:56:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1sr010hucvhm347d2vejn3on9u5l28vnon@4ax.com>
Source record: 101461
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

On 22 Jan 2004 12:29:08 -0800, chris-google@pobox.com (Chris Campbell)
wrote:

>Ivan wrote:
>> try to make a rectangular coil, about 1 ft x 1 ft, some 30 turns wound
>> by a fairly thin magnet wire (#25 to #30). Bring it into resonance at
>> 60 kHz by a capacitor, some 8000 - 10000 pF. Place the coil
>> vertically, aiming to the transmitter, and place the clock to its
>> center. You do not need any mods of the clock. The signal should be
>> significantly stronger.
>
>Now, just so I understand you correctly, you're saying I don't
>actually connect this loop antenna to the clock?

Correct.

> I just place the
>clock in the center of it, and the loop antenna (I guess) induces a
>stronger signal in the clock's internal antenna?

Yup.

> Wow, I'd love that.
>As for the loop ends, I just connect them together across the cap?

You got it.
>
>And when you say "vertically, aiming to the transmitter", you mean
>that the plane of the loop intersects with the transmitting station,
>right? That is, I don't point the *face* of the loop at the
>transmitter, I point the edge towards it. Right?

"Towards" is a relative direction. You may have to experiment.

Hi Chris,

The ultimate explanation is that if you read the instructions
carefully, you may find they state to try on one wall, or move to
another and try again (pretty much the same advice as that above, less
all the wire and capacitors).

The "synchronization" does not always happen all at once (again, this
is undoubtedly discussed in the instructions - or used to be). You
may spend up to a week discovering the sweet spot where the receiver
responds. We have fielded many such questions as yours in the past,
and I cannot recall anyone coming back after having given up (and I

don't recall one needing an external antenna).

73's
Richard Clark, KB7QHC

1090. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 01:14:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jhs010dr7r4ocnhujh5jiet3iti84e9rk6@4ax.com>
Source record: 101462

On Tue, 20 Jan 2004 20:19:39 GMT, "Jimmy" <Gfender@carolina.rr.com>
wrote:

>Is an antenna that is resonant on 10 meters still a 1/4 wavelength antenna
>if it is physically only 4ft long

No.

> or would this be an 1/8 wavelength
>antenna(more or less)

Close enough to say Yes.

>I am saying this should be called an 1/8 wl antenna
>though I am arguing with those who generally know more more about this than
>I. Not all the old timers disagree with me, so I am betting this is a pretty
>common problem when discussing antennas.

Hi Jimmy,

If it wasn't before, it sure is now.

The description is the physical size in the applied frequency's
wavelength.

Skip all the sophistries based on resonance because at 10M that could
lead to a foot long loaded resistor being called a 107/4th's
wavelength antenna. (After the first couple of "electrical"
quarterwaves, why stop? Resonance certainly cannot tell which
quarterwave it is at.) The only way to distinguish successive, odd
quarterwavelength antennas is in their radiation resistance which
accumulates with SIZE, not components (unless you are stringing
resistors like christmas tree bulbs). Even then, the cumulative
resistance does not add beyond the 3rd or 5th quarter.

73's
Richard Clark, KB7QHC

1091. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 01:30:33 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <buptfs$bs2u$1@news3.infoave.net>
Source record: 101463

I for one, would take the present test anytime, any place, and if I don't
get 90% plus you can have my ticket.

Doubtful that I am alone. I suspect that most of the old farts, like myself,
would tell you the same thing.

"John Passaneau" <jxp16@psu.edu> wrote in message
news:buonjq$1hso$1@f04n12.cac.psu.edu...
> I wonder if the guys that are claiming that the license is so easy to get
> could pass the test for their current grade? I bet a few of them would do
a
> lot worse than they would ever admit to.
>
>
> --
> John Passaneau, W3JXP
> Penn State University
> w3jxp@arrl.net
>
>
> "W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
> news:bunkil$anfr$1@news3.infoave.net...
> > We will determine the true worth, when the next set of rule changes,
will
> > allow ARRL to auction licenses on E-Bay.
> >
> > "Bill Turner" <noway@nohow.com> wrote in message
> > news:cr7u00pt2511q28md761fa5fagspac5kg8@4ax.com...
> > > On Wed, 21 Jan 2004 15:26:29 -0800, "Jim" <NN7K@Reno.Rmci.Net> wrote:
> > >
> > > >the value of a license is worthless!
> > >
> > > ____
> > >
> > > Until you get hauled into court for transmitting without one. Then
> > > you'd find it quite worthwhile.
> > >
> > > --
> > > Bill, W6WRT
> > >
> >
> >
>
>

1092. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 02:11:18 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <fZWdnUTgvb9YH43d4p2dnA@comcast.com>
Source record: 101464
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

To avoid all the pissing and moaning on an individual basis, everyone stand up and say, in unison, "I had to take the code test so should everyone else, boo hoo hoo".

"Lloyd Mitchell" <lloydm75@hotmail.com> wrote in message news:X3tPb.32995$2L6.7688@bignews6.bellsouth.net...
> SB QST @ ARL $ARLB003
> ARLB003 ARRL to Propose New Entry-Level License, Code-Free HF Access
>
> ZCZC AG03
> QST de W1AW
> ARRL Bulletin 3 ARLB003
> >From ARRL Headquarters
> Newington CT January 20, 2004
> To all radio amateurs
>
> SB QST ARL ARLB003
> ARLB003 ARRL to Propose New Entry-Level License, Code-Free HF Access
>
> The ARRL will ask the FCC to create a new entry-level Amateur Radio
> license that would include HF phone privileges without requiring a
> Morse code test. The League also will propose consolidating all
> current licensees into three classes, retaining the Element 1 Morse
> requirement--now 5 WPM-only for the highest class. The ARRL Board of
> Directors overwhelmingly approved the plan January 16 during its
> Annual Meeting in Windsor, Connecticut. The proposals--developed by
> the ARRL Executive Committee following a Board instruction last
> July--are in response to changes made in Article 25 of the
> international Radio Regulations at World Radiocommunication
> Conference 2003 (WRC-03). They would continue a process of
> streamlining the amateur licensing structure that the FCC began more
> than five years ago but left unfinished in the Amateur Service
> license restructuring Report and Order (WT 98-143) that went into
> effect April 15, 2000.
>
> ''Change in the Amateur Radio Service in the US, especially license
> requirements and even more so when Morse is involved, has always
> been emotional,'' said ARRL First Vice President Joel Harrison, W5ZN,
> in presenting the Executive Committee's recommendations. ''In fact,
> without a doubt, Morse is Amateur Radio's 'religious debate.'''
>
> The entry-level license class--being called ''Novice'' for now--would
> require a 25-question written exam. It would offer limited HF

> CW/data and phone/image privileges on 80, 40, 15 and 10 meters as
> well as VHF and UHF privileges on 6 and 2 meters and on 222-225 and
> 430-450 MHz. Power output would be restricted to 100 W on 80, 40,
> and 15 meters and to 50 W on 10 meters and up.
>
> ''The Board sought to achieve balance in giving new Novice licensees
> the opportunity to sample a wider range of Amateur Radio activity
> than is available to current Technicians while retaining a
> motivation to upgrade,'' said ARRL CEO David Sumner, K1ZZ. Under the
> ARRL plan, current Novice licensees--now the smallest and least
> active group of radio amateurs--would be grandfathered to the new
> entry-level class without further testing.
>
> The middle group of licensees--Technician, Tech Plus (Technician
> with Element 1 credit) and General--would be merged into a new
> General license that also would not require a Morse examination.
> Current Technician and Tech Plus license holders automatically would
> gain current General class privileges without additional testing.
> The current Element 3 General examination would remain in place for
> new applicants.
>
> The Board indicated that it saw no compelling reason to change the
> Amateur Extra class license requirements. The ARRL plan calls on the
> FCC to combine the current Advanced and Amateur Extra class
> licensees into Amateur Extra, because the technical level of the
> exams passed by these licensees is very similar. New applicants for
> Extra would have to pass a 5 WPM Morse code examination, but the
> written exam would stay the same. Sumner said the Board felt that
> the highest level of accomplishment should include basic Morse
> capability. Current Novice, Tech Plus and General licensees would
> receive lifetime 5 WPM Morse credit.
>
> ''This structure provides a true entry-level license with HF
> privileges to promote growth in the Amateur Service,'' Harrison said.
>
> Among other advantages, Sumner said the plan would allow new Novices
> to participate in HF SSB emergency nets on 75 and 40 meters as well
> as on the top 100 kHz of 15 meters. The new license also could get
> another name, Sumner said. ''We're trying to recapture the magic of
> the old Novice license, but in a manner that's appropriate for the
> 21st century.''
>
> The overall proposed ARRL license restructuring plan would more
> smoothly integrate HF spectrum privileges across the three license
> classes and would incorporate the ''Novice refarming'' plan the League
> put forth nearly two years ago in a Petition for Rule Making
> (RM-10413). The FCC has not yet acted on the ARRL plan, which would
> alter current HF subbands.
>
> The ARRL license restructuring design calls for no changes in

> privileges for Extra and General class licensees on 160, 60, 30, 20,
> 17 or 12 meters. Novice licensees would have no access to those
> bands.
>
> See ''ARRL to Propose New Entry-Level License, Code-Free HF Access''
> on the ARRL Web site, www.arrl.org/news/stories/2004/01/19/1/, for
> the specific subband allocations ARRL is proposing for each class.
> NNNN
> /EX
>
>

1093. 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 03:54:41 UTC
From: pdrunen@aol.com
Message-ID: <20040122225441.22671.00000513@mb-m18.aol.com>
Source record: 101465

Hi Group,

Put up a off-center dipole, 80 feet on one side and 40 feet on the other side and use a 4:1 to step down the impedance.

How does a 4:1 balun change a complex impedance? Is the j part of the antenna also divided by 4? for example, 200+j200 will step down to 50+j50 ?

de KJ4UO

1094. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 10:39:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <buqtl0pmm1@sparta.btinternet.com>
Source record: 101466

Just do what the arithmetic tells you to do.

Z/4 = (R+jX)/4 = R/4 + jX/4

1095. Antenna Comparison?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 11:58:17 UTC
From: Bob <rljames@hotmail.com>
Message-ID: <Xns9479472171AF8rljameshotmailcom@208.34.105.14>
Source record: 101467

I'm a confused radio neophyte trying to compare two antennas using an ICOM R8500...

For the most part both the AOR MA-500 mobile whip and Nil-Jon Super M base seem to capture the same signals but the AOR generally has a much lower "noise floor". That is to say, I can hear clearer voice via the AOR because there is less background noise and scans "work" better because the squelch can be set to a lower threshold. Same physical location and connection cable using each antenna. I listen to a wide range of frequencies but have noticed this phenomenon most in 750 - 950 MHz.

What causes this difference and how I can improve the Nil-Jon?

> The AOR MA500 is a stainless steel 29 inch magnet mount mobile
> scanner antenna covering 25 to 1300 MHz. Peak performance is
> from approximately 100 to 400 MHz.
>
> The NIL-JON Super M Base is a versatile VHF-UHF antenna providing
> very high performance. The receive range is 25 to 1300 MHz. It may
> be used for transceive applications at these frequencies: 144-148
> and 435-465 MHz.

1096. Re: Mil-Spec VHF-UHF Discone Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 12:16:05 UTC
From: Joe O <jenjoeo@zianet.com>
Message-ID: <40110a3e@news.zianet.com>
Source record: 101468

Thanks, very promising !

Joe O

"Ed Price" <edprice@cox.net> wrote in message
news:hUsPb.16735$A74.14562@fed1read02...
>
> "Joe O" <jenjoeo@zianet.com> wrote in message
> news:400e380a@news.zianet.com...
> > Looking for a supplier of a rugged discone.
> >
> > Thanks
> > Joe O, KI5FJ
> >
> >
>
> Try Antenna Research Associates
>
> http://www.aratech-inc.com/PDF/WSG/sas_21-23-r.pdf
>
> Ed
>

1097. Re: Device By An Antenna: Patent WO0245210

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 13:57:23 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <7L9Qb.23589$1e.22682@newsread2.news.pas.earthlink.net>
Source record: 101319

It's simply a ferrite-loaded helical antenna with inductive tap
matching. Nothing really unusual.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
\ \ / \
\ '" \ IEEE Member #40274515
. ( ) \
'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

"PagCal" <pagcal@runbox.com> wrote in message
news:vqpubr5q6l8d66@corp.supernews.com...
> Has anyone looked at this patent?
>
> See http://l2.espacenet.com/espacenet/viewer?PN=WO0245210
>
> for details.
>
> It's basically a coil wrapped around a ferrite rod/tube
> that sensitive to the magnetic part of the electromagnetic
> field.
>
> The author claims it can be built small, handle high
> power, and is mostly omni-directional.
>
> They also went to the trouble of patenting it
> in Canada, number CA2427575, but I can find no US patent.
>
>

1098. AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 14:24:19 UTC
From: n2ion@aol.com
Message-ID: <20040123092419.20558.00000299@mb-m21.aol.com>
Source record: 101320

Long Island Mobile Amateur Radio Club (LIMARC), is looking for DONATIONS of "Ham" gear, like triband beams, rigs, and towers, to be used for our Emergency Communication Stations, and Field Day.

If you have any old equipment that you're not using anymore, and would like to donate it to our cause, we will make sure that you get a nice letter, being that we have 503 c(3) status with the I.R.S. ,for a tax deduction, from our club.
We really need your help, so please try to assist us in any way that you can.

Thanks in advance

1099. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 14:43:58 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <burbve$1l7g$1@f04n12.cac.psu.edu>
Source record: 101321

A 1:1 choke balun made out of coax "chokes" off current flowing on the outside of shield, it has no effect on what is happing inside the coax between the inside of the shield and the center conductor. If you made a choke balun wound on a toroid or with beads with 2 foot of 75 ohm coax and used it on an antenna with a Z of 50 ohms at 28Mhz. That 2 foot of 75 ohm coax would transform the 50 ohms to 59.4+j21.3 ohms at the output end of your balun. If this is a problem it's up to the user to decide but I wouldn't like it. The same effect would happen if the balun was made with a parallel conductor line be it "zip cord" or enameled wire. If the Z of the line in the choke balun doesn't match the Z of the feed line it will cause an impedance transformation that will with vary with frequency. Of course if one is only using the balun at 7Mhz or lower it will not be as noticeable as it is at 28MHz.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:bupo3s$1n5$1@sparta.btinternet.com...
>
> > Anyway
> > the difference in loss between #18 wire and RG-400 due to IR drop in the
> > length of wire in a balun is too small to worry about.
> >
> > John Passaneau, W3JXP
> > Penn State University
>
> ==========
>
> Just like I said !
>
> But a 1:1 choke balun has an indeterminate transformation ratio.
>
>

1100. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 16:18:31 UTC
From: chris-google@pobox.com
Message-ID: <ba42132e.0401230818.2b85acd5@posting.google.com>
Source record: 101322
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Richard Clark <kb7qhc@comcast.net> wrote:
> The ultimate explanation is that if you read the instructions
> carefully, you may find they state to try on one wall, or move to
> another and try again (pretty much the same advice as that above, less
> all the wire and capacitors).
>
> The "synchronization" does not always happen all at once (again, this
> is undoubtedly discussed in the instructions - or used to be). You
> may spend up to a week discovering the sweet spot where the receiver
> responds. We have fielded many such questions as yours in the past,
> and I cannot recall anyone coming back after having given up (and I
> don't recall one needing an external antenna).

Oh, I'm sure lots of folks ask questions here about these clocks :)

Believe me, I tried and I was very patient. I tried the clock set up
in five different locations, which included several orthogonal
directions, and I left it in each position for at least 24 hours, and
probably a lot longer. I spent a month on this and I'm not
exaggerating. It was months ago (I *did* give up :) and my memory is
fuzzy but I know I left it up at least overnight in each position, and
for a week or more in some locations (i.e. on the bench, pointing in
different directions). I never got a sync indoors.

It's just that now I'm trying again, after having given up. Thanks
for your help and I'll try the surrounding-loop solution. Makes me
wish I'd taken that antenna design course in EE school.

1101. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 17:20:17 UTC
From: Dennis <"Howdy Doody"@howdydoody.net>
Message-ID: <1012luj3hfiboe0@corp.supernews.com>
Source record: 101323
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

```
In article <400DD30E.FE3D3E@.deletethis.sympatico.ca>,
mylastname@.deletethis.sympatico.ca says...
>
>
>
>
>"Michael A. Terrell" wrote:
>>
>> Steve Nosko wrote:
>> >
>> > Where are you? I'm in Illinois and just got one of the clocks. I know
it
>> > helps you not not a bit for me to say mine sync'ed up quickly, but
everybody
>> > says that kinda' stuff (:-)..
>> >
>> > Don't think there is anything to buy... Make is the only way.
>> >
>> > The instructions for mine say that it only listens at certain times and
can
>> > take a few _DAYS_ to sync up. That seems strange to me...oh well.
>> >
>> > Ivan's passive loop is a VERY good idea - easy.
>> >
>> > I don't think cinder block walls will matter.
>> >
>> > Search for "lowfer". I wanted to actually hear WWVB and do a little
SWLing
>> > for NDBs (300-500KHz) w/ my new IC 706 and did some snooping. A good
loop
>> > takes a little bit of work.
>>
>> All you will hear is nothing, unless your detector and audio amp goes
>> down to DC. The modulation rate is one bit per second, by reducing the
>> carrier level by 10 dB. There is no audio modulation, because the signal
>> is also a frequency standard. The only way you would hear it would be to
>> mix a signal to beat against WWVB to produce a heterodyne in the radio's
>> pass band.
>>
>> --
>> We now return you to our normally scheduled programming.
>>
>> Take a look at this little cutie! ;-)
```

>> http://home.earthlink.net/~mike.terrell/photos.html
>>
>> Michael A. Terrell
>> Central Florida
>
>
>I hear it fine with several different receivers provided I use either CW
>or SSB. But! I CANNOT hear it on my IC-706; it does not seem to come
>alive until somewhere between 200 and 300kHz.
>
>Dave

You, must have some phenomenal hearing......60KHz!!

1102. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 17:36:18 UTC
From: richardharrison@webtv.net
Message-ID: <13278-40115B92-3@storefull-3251.bay.webtv.net>
Source record: 101325

Art, KB9MZ wrote:
"Antenna engineers have become so focussed on the half wave patterns
that they have completely ignored the low efficiency portions at the
ends of the half wave antenna. Future antennas most surely will remove
these low efficient (sic) radiator parts together with the addition of
coupling techniques that will help to move away from the yagi syndrome."

Don`t hold your breath!

Antenna engineers are focussed on 1/2-wave antenna patterns because
those are the patterns produced by 1/2-wave antennas. A half-wave
antenna is resonant without a reflection from the earth or anything
else. Antenna system resonance is essential to remove reactive impedance
to antenna current flow. No current flow, no antenna operation.

The ends of a dipole have nearly zero radiation because current at the
ends is nearly a zero sum of incident and reflected currents.The H-field
is thus cancelled. Radiation ends where the current ends. A 1/4-wave
back from the reflection point, incident and reflected currents are
in-phase and strong radiation is possible.

What Art calls the "yagi syndrome" is a preference for an antenna which
has only one feedline attachment point and gets about as much gain per
length of wire as any. Size is important for wind loading in addition to
antenna cost and performance. The yagi is a big performer in spite of
its small size.

Yagi elements must be nearly 1/2-wave in length because that`s the
minimum length required to accept significant induced current in a
parasitic element far from ground.

If you were to chop off the ends of a 1/2-wave antenna, you would have
to replace them with another mechanism to bring resonance back to the
shortened dipole. These artifices are almost always lossier than the
lost conductor removed from the antenna. A capacitance hat is an
exception, but this is hardly smaller.

At night it is often more rewarding to look for something lost, not
because the site seems probable, but because the search site is the only
illuminated spot.

Best regards, Richard Harrison, KB5WZI

1103. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 17:37:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <burm4u$4s2$1@hercules.btinternet.com>
Source record: 101324

When connecting a 50-ohm circuit to a 600-ohm line via a choke balun it
makes no difference what the impedance of the short length of line forming
the choke might be.

For practical purposes the severe mismatch is due entirely to the difference
between 50 and 600 ohms.

One must avoid suffering from delusions of accuracy.

Reg

1104. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 17:54:55 UTC
From: Ron McConnell <rcmcc@earthlink.net>
Message-ID: <PddQb.21670$i4.19684@newsread1.news.atl.earthlink.net>
Source record: 101326
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Chris Campbell wrote:
> I'm trying to get a radio clock to sync up with WWVB
(60 kHz out of Colorado). ...

From experience there are also differences in the performance
of WWVB clock receivers of the same brand and model
from opening the box and later from differences in aging.

Several years ago I ordered a wristwatch and two travel clocks
from one of then and still prominent "atomic" clock outfits.
One of the travel clocks locked up soon (overnight? - brain cells
fade) and the second shortly afterwards. The wristwatch
just would not lock up - very small antenna, so I wasn't
surprised that it would take longer. I tried leaving
it overnight in parts of the away from PC, TV, radio, ...
and orienting it in various ways to point it to Colorado.
After about two weeks, when I had given up and was ready
and call the company, I went on a trip from northern NJ
to California. Somewhere, sometime during the trip
it locked up. Then after returning home... nothing.
Making a very long story short, the company _finally_
sent me a replacement wristwatch. The new one
locked up nearly every night for the next 2 years
and then, after any guarantee was gone, it quit.
It still runs, just has long since drifted off time.
Nothing since in the last 3 years, despite the deal
of trying to find a 60-kHz quiet place, reorienting it...

In the meantime, the travel clocks were doing fine,
no matter where they were left or what part of the
country I was in. Then about 2 years ago,
one of them quit. Again - try finding that sweet, magic spot,
leaving it side by side with its brother, oriented
in the same direction. Always the same result -
one fine, one deaf.

I have thought about building a loop antenna
like as has been disussed here to see if I could
get at least the deaf travel clock locking.
Tek makes tunable AM Loop antennas where the AM radio
sits next to the loop and they do work
out here in rural New Jersey.
This discussion may yet spur me
to physical wire and solder,

not just typing, action.

Somewhere I did have the URL of web page
where a fellow built a shielded loop
with an amplifier and all. The passive design,
using Reg's program as a start, is simpler.

I have several of the Sam's Club US$23 atomic wall clocks
that lock up just fine, mounted on walls facing
every which way. The outside temperature reading
433MHz receiver seems to be a flaky, marginal design,
but that's a different story.

Cheers, 73

Ron McConnell

w2iol@arrl.net

N 40ï¿½ 46' 57.9" W 74ï¿½ 41' 21.9"

FN20ps77GV75 per w2iol
or FN20ps77GU46 per K2RIW

http://home.earthlink.net/~rcmcc

1105. Re: Antenna future

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 18:36:36 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401169B3.A66C7B84@uci.edu>
Source record: 101327

Richard Harrison wrote:
>
> Art, KB9MZ wrote:
> "Antenna engineers have become so focussed on the half wave patterns
> that they have completely ignored the low efficiency portions at the
> ends of the half wave antenna. Future antennas most surely will remove
> these low efficient (sic) radiator parts together with the addition of
> coupling techniques that will help to move away from the yagi syndrome."
>
> Don`t hold your breath!

Makes me wonder if Art has ever considered cutting-off the unused parts
of the tires on his car. ;-)

73, Jim AC6XG

1106. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 19:59:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bcu21014lgekvco40o6qh2l5aggool9g66@4ax.com>
Source record: 101328
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

On 23 Jan 2004 08:18:31 -0800, chris-google@pobox.com (Chris Campbell)
wrote:

> It was months ago (I *did* give up :) and my memory is
>fuzzy but I know I left it up at least overnight in each position, and
>for a week or more in some locations (i.e. on the bench, pointing in
>different directions). I never got a sync indoors.
>
>It's just that now I'm trying again, after having given up. Thanks
>for your help and I'll try the surrounding-loop solution. Makes me
>wish I'd taken that antenna design course in EE school.

Hi Chris,

Some years ago in my Cal Lab, the antenna that I used to receive WWVL
was a 16 foot whip. I had it connected to a specialized receiver that
separated out the Naval Observatory's TOC which was a specifically
shaped pulse that occurred every 17 minutes. I used this to
synchronize my Atomic Clock to within 100nS of UTC. It was never a
simple feat, and missing that pulse meant a delay of at least 17
minutes (which was about how long the entire process took).

One question that I have failed to ask the various posters that came
here was "how do you know it hasn't synchronized?" I can imagine
there being a gross error of seconds if not minutes (which may
contribute their/your problem), but under one second variation is
difficult to confirm.

73's
Richard Clark, KB7QHC

1107. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 20:36:54 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <GBfQb.6271$YG.362489@twister.southeast.rr.com>
Source record: 101329

" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:KVAOb.93878$8H.136929@attbi_s03...
> Many hams have just gone thru an ice storm where many have lost the end
> portions of their elements due to the
> weight of ice. Strange thing is that many of those hams who suffered
damage
> are confinced that they see NO difference in their shortened antennas and
a
> few were adamant that the performance had IMPROVED
> One local guru who had many books on radio thought that maybe the real
world
> was different to what he read in books!
> He then took out his ARRL book and right there is said that gain of two
> dipoles side by side increases gain in proportion to the spacing between
the
> ends of the dipole.
> Since this revelation was in a book it was obvious that what other hams
were
> experiencing with their damaged antennas must be true. So the guru
purchased
> two dipole
> and put them side by side and then remove the ends just as the ice storm
> would and thus increased the gap between the two dipoles, which the
A.R.R.L
> BOOK said would produce more gain.
> The guru is now befuddled
> He listened to experiences in the REAL WORLD and merged it with what must
> be right because it was in a BOOK but did not get all this extra gravy he
> was looking for !.
> What is going on between the real world and what is written in books.?
> He He!
> Regards
> Art
>
>
ART, I too have lost portions of my antenna due to ice storms, I was able to
retune and still operate my station with the damaged antenna. Howeever ther
is no way I could tell you if it was better or worse as no reference had
benn previously established for comparison. I seriously doubt if those
others that this has happened to had a chance to establish some meaningful
reference either.
I too am familar with the statement reguarding spacing between the ends of
the antenna. I find it both amusing and incredible that anyone could take
this to mean that cutting off the ends of the antenna will cause an increase

in gain.

1108. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 21:11:44 UTC
From: richardharrison@webtv.net
Message-ID: <19207-40118E10-17@storefull-3252.bay.webtv.net>
Source record: 101330

Chris Campbell wrote:
"I am trying to get a radio clock to sync up with WWVB (60 KHz out of Colorado).

A course in antennas is nice but loop antennas are covered in the "ARRL Antenna Book". In my 19th edition, loop antennas are covered starting on pages 5-1 and 14-2. See Fig 3 on page 14-3.

At 60 KHz, any practical loop is physically small in terms of wavelength. The far field pattern of a small circular loop is the same as that of a small square loop of the same enclosed area (Kraus edition 3, page 197). Area equals the square`s side length squared, and that is equal to pi times the radius squared for the circular loop.

Current is all in the same direction in the small loop, so there`s a null perpendicular to the plane of the loop and radiation is in the plane of the loop. If the loop is placed in the vertical position, radiation is vertically polarized as required for all ground wave propagation.

Far field strength associated with a small loop is directly proportional to the enclosed area in terms of wavelength (Formula 8 on page 199 of Kraus).

Every receiving antenna is also a transmitting antenna. The most power that may be tapped from the antenna is 50%, and a matched load is required to extract 50%. Any mismatch increases the % of re-radiation. At a 100% mismatch, i.e., a shorted dipole or an untapped resonant loop, 100% of the energy captured must be re-radiated.

So, set up a large resonant loop to capture all the 60 KHz energy you can. Position the 60 KHz receiver (clock) to couple the most desired energy and the least undesired energy possible into the receiver.

A high-Q loop, except for radiation resistance, is desirable. Litz` wire uses copper better than solid wire does at 60 KHz.

Best regards, Richard Harrison, KB5WZI

1109. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 21:44:56 UTC
From: richardharrison@webtv.net
Message-ID: <19668-401195D8-56@storefull-3254.bay.webtv.net>
Source record: 101332

Jimmy wrote:
"I too am familiar with the statement regarding spacing between the ends of the antenna."

Yes, The 19th edition of the "ARRL Antenna Book" has Fig 39 on page 8-35 which shows "Gain of two collinear 1/2-WAVE elements as a function of spacing between the adjacent ends."
It says nothing of cutting off your ends to spite your array!

You actually get about 3 dBd gain from two !/2-wave dipoles when there is a 1/2-wave space between their adjacent ends versus only a 1.5 dBd gain when there is only the space of a short insulator between the ends of the 1/2-wave dipoles.

Best regards, Richard Harrison, KB5WZI

1110. Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 21:54:58 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <bus55t$ip3st$1@ID-150848.news.uni-berlin.de>
Source record: 101331

I want to make a VHF receiving dipole with say 1/4" tubing. Can you buy plastic dipole centerpeices? TIA.

1111. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 22:07:12 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <bus5t3$lifvo$1@ID-150848.news.uni-berlin.de>
Source record: 101333

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:bus55t$ip3st$1@ID-150848.news.uni-berlin.de...
> I want to make a VHF receiving dipole with say 1/4" tubing. Can you buy
> plastic dipole centerpeices? TIA.

I mean a plastic center which has socket holes, which you push the tube
into.

1112. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-23 22:12:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4g6310pofcgajqv1k6fjhu0fcdaovchd0j@4ax.com>
Source record: 101334

On Fri, 23 Jan 2004 20:36:54 GMT, "Jimmy" <Gfender@carolina.rr.com>
wrote:

>ART, I too have lost portions of my antenna due to ice storms, I was able to
>retune and still operate my station with the damaged antenna. Howeever ther
>is no way I could tell you if it was better or worse as no reference had
>benn previously established for comparison. I seriously doubt if those
>others that this has happened to had a chance to establish some meaningful
>reference either.
> I too am familar with the statement reguarding spacing between the ends of
>the antenna. I find it both amusing and incredible that anyone could take
>this to mean that cutting off the ends of the antenna will cause an increase
>in gain.
>

Hi Jimmy,

Anecdotal evidence is what sells antennas like the eh, even in the
face of their higher efficiency claims resulting in 30dB poorer
signals.

The argument for clipping off "unused" parts of antennas (especially
yagis) is a howler. It is much like a suggestion to paint out the
parts of the telescope lens that you don't look through. Would the
telescope still work? On the boresight perhaps (no field of view, but
with no more magnification for it though), with less light (you can
only use it at local noon), and more fringing (artifacts due to BW
restriction). No doubt there would be someone to offer glowing
testimonial to that advance in science that so confounds the experts.
(And waiting for a Patent publication for special telescope
enhancement paint.)

73's
Richard Clark, KB7QHC

1113. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 00:23:02 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4011BAE6.EEF72234@cwis.net>
Source record: 101335

Richard,
I haven't seen anything like that sold commercially,
but I don't see why you couldn't make one. Ought to be
able to find a source of plastics on the internet or
locally, maybe. Drill the holes you need and half way
there.
'Doc

1114. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 01:00:49 UTC
From: Bob McConnell <rmcconne@NOSPAM.lightlink.com>
Message-ID: <ofg3109bbbqfdm9ip1r6n8mgnkcamr0ou6@4ax.com>
Source record: 101336
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

On Wed, 21 Jan 2004 18:19:04 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Jim wrote:
>> Pretty much agree with Doc, altho, after the last "restructureing", the
>> value of a license is worthless!
>
>The only value in a license are the privileges granted. The privileges
>granted haven't changed appreciably. I had full access to all ham bands
>in 1953 and I still have full access to all ham bands in 2004. I lost
>11m and 220 MHz but gained the WARC bands. The value of my license is
>very close to what it was in 1953.

Unfortunately, there are far too many for whom the value of their
license is measured in how many people it allows them to look down
their noses at. Their only motivation for moving up was so they could
gloat over how much better they are than anyone that isn't up to their
standards. This is also the primary reason that contests and awards
are rubbed in our faces in most of the magazines and newsletters. This
is the crowd the ARRL has been cutivating for years, because they
don't care about advancing the state of the art, or building their own
equipment, helping others, or any of the other aspects of the hobby
that used to make it great. They simply want to buy the newest,
coolest, fanciest or most expensive rig to help them along on their
ego trip, which keeps the advertisers happy.

Somebody let me know when QST no longer has any contests or award
notices in it. Then I *might* be interested in looking at it again.

Bob McConnell
N2SPP

1115. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 01:01:46 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <busg5s$d669$1@news3.infoave.net>
Source record: 101337

Why do that? You can use a single piece of pipe 1/2 wavelength and simply gamma match it. No need for all the insulation worries.

"Richard" <nearlynews_email@ntlworld.com> wrote in message news:bus5t3$lifvo$1@ID-150848.news.uni-berlin.de...
>
> "Richard" <nearlynews_email@ntlworld.com> wrote in message
> news:bus55t$ip3st$1@ID-150848.news.uni-berlin.de...
> > I want to make a VHF receiving dipole with say 1/4" tubing. Can you buy
> > plastic dipole centerpeices? TIA.
>
>
> I mean a plastic center which has socket holes, which you push the tube
> into.
>
>

1116. Cushcraft 40 meter rotatable dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 01:08:51 UTC
From: wm2f@pics.com
Message-ID: <74e1d9f2.0401231708.6c117931@posting.google.com>
Source record: 101338

Anybody have experience with this rigid dipole. Im thinking of putting this above my beam at around 70 feet.

Best 73

1117. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 01:13:37 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <busgsf$d77b$1@news3.infoave.net>
Source record: 101339
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

I disagree with your premise Bob, I hope that you are not so insecure with your manhood that you would find the success of others a threat.

Many of us older farts strive for excellence, we use various means to measure how we compare to others. Do not confuse pride in accomplishment with ego.

In spite of what the feel good types tell you, competition is a basic human instinct. Keeping score is the way to quantify the competition.

To distain the accomplishments of others as "ego" is both supercilious and lacking in the basic understanding of the human condition.

"Bob McConnell" <rmcconne@NOSPAM.lightlink.com> wrote in message news:ofg3109bbbqfdm9ip1r6n8mgnkcamr0ou6@4ax.com...
> On Wed, 21 Jan 2004 18:19:04 -0600, Cecil Moore

> Unfortunately, there are far too many for whom the value of their
> license is measured in how many people it allows them to look down
> their noses at. Their only motivation for moving up was so they could
> gloat over how much better they are than anyone that isn't up to their
> standards. This is also the primary reason that contests and awards
> are rubbed in our faces in most of the magazines and newsletters. This
> is the crowd the ARRL has been cutivating for years, because they
> don't care about advancing the state of the art, or building their own
> equipment, helping others, or any of the other aspects of the hobby
> that used to make it great. They simply want to buy the newest,
> coolest, fanciest or most expensive rig to help them along on their
> ego trip, which keeps the advertisers happy.
>
> Somebody let me know when QST no longer has any contests or award
> notices in it. Then I *might* be interested in looking at it again.
>
> Bob McConnell
> N2SPP
>

1118. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 01:44:48 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <4011CE03.A2754C06@earthlink.net>
Source record: 101340
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Ron McConnell wrote:
>
> I have thought about building a loop antenna
> like as has been disussed here to see if I could
> get at least the deaf travel clock locking.
> Tek makes tunable AM Loop antennas where the AM radio
> sits next to the loop and they do work
> out here in rural New Jersey.
> This discussion may yet spur me
> to physical wire and solder,
> not just typing, action.
>
> Somewhere I did have the URL of web page
> where a fellow built a shielded loop
> with an amplifier and all. The passive design,
> using Reg's program as a start, is simpler.
>
> I have several of the Sam's Club US$23 atomic wall clocks
> that lock up just fine, mounted on walls facing
> every which way. The outside temperature reading
> 433MHz receiver seems to be a flaky, marginal design,
> but that's a different story.
>
> Cheers, 73
>
> Ron McConnell

I built a Sheilded, amplified loop for my tests, and got a decent signal a few miles north of Orlando, years before they built the new towers, and transmitter.

As far as the oudoor thermometer, Some cordless phones on the same band search for an open frequency, and wipe out the sync between the sensor and the clock. I need a cordless phone, more than the outdoor temperature, so I don't worry about it.

--
We now return you to our normally scheduled programming.

Michael A. Terrell
Central Florida

1119. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 02:41:11 UTC
From: Eric Oyen - N7ZZT <n7zzt@127.0.0.1>
Message-ID: <pan.2004.01.24.02.41.11.312244@127.0.0.1>
Source record: 101341

On Thu, 22 Jan 2004 18:18:59 -0500, Jerry Oxendine wrote:

>
>
>
> I tried to explain to some of the guys on rec.radio.cb that that antenna
> is no more "beam" that a boar hog with teats. I was met with blistering
> comment from some of the resident experts. LOL!!
>
> Jerry
ROFLMAO!

"resident experts"? oh boy... well, having built my own antenna, I do find the marketing of particular brands comical at best (and those so-called "resident experts" are nothing more than snake-oil salesmen).

I've often found that a full wave loop on 11 meters outperforms an end-fed half wave antennal (the solarcon antron-99 comes to mind as such) and has a lot less profile. I used to run that one for some time before I finally gave up on CB (and 11 meter equipment) and went whole hog into ham radio. much of what I learned for building antennas on 11 meters works nicely on 6, 2, 1.25 and .70 meters nicely. I am in process of building a stacked full wave loop system for .70 (using phased line feed systems) and should expect some gain in the verticle polarization. Its sure as hell cheaper than buying a ready made antenna though.

still, the "experts" on rec.radio.cd havea lot to learn. sure those loading coils on vehicle mounted antennas look nice, but do they really perform as advertised. only field testing will tell for certain.

DE N7ZZT
Phoenix, Arizona

--
the difference between intelligence and stupidity is that intelligence has its limits.

1120. Specification for Antena tuners-radio interfaces

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 02:41:31 UTC
From: JB <Jbonilla11@cfl.rr.com>
Message-ID: <vXkQb.90020$873.1627301@twister.tampabay.rr.com>
Source record: 101342

I would like to know the specifications on how the Kenwood and Yaesu radios interface with their automatic antenna tuners.

Thank you in advace,

JB
jbonilla11@cfl.rr.com

1121. Re: Cushcraft 40 meter rotatable dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 02:49:09 UTC
From: wb4una@aol.com
Message-ID: <20040123214909.13001.00000874@mb-m02.aol.com>
Source record: 101343

>Anybody have experience with this rigid dipole. Im thinking of putting
>this above my beam at around 70 feet.
>
>Best 73
>
i have a Cushcraft D-40 at 85 feet and really like it. I was on the band the
other nite and it was dead..called cq and had 4 replys and one was from Cal.
.This was at 23:30 est .Might be much to some people but it was fun to me.I
turned the dipole and got the 6 call in great and then went to a dipole and
never heard him, it is at 80 feet.
So I guess you can say IT works for me..

Randy

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

1122. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 04:00:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4011ee8d$1_6@corp.newsgroups.com>
Source record: 101344
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Bob McConnell wrote:
> Unfortunately, there are far too many for whom the value of their
> license is measured in how many people it allows them to look down
> their noses at.

At 6'4", I don't usually need a ham license for that. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1123. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 11:25:24 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <butklk$lcv8t$1@ID-150848.news.uni-berlin.de>
Source record: 101345

"'Doc" <w5lz@cwis.net> wrote in message news:4011BAE6.EEF72234@cwis.net...
>
>
> Richard,
> I haven't seen anything like that sold commercially,
> but I don't see why you couldn't make one. Ought to be
> able to find a source of plastics on the internet or
> locally, maybe. Drill the holes you need and half way
> there.
> 'Doc

What material do you think?

1124. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 16:47:03 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <401151d4_5@newsfeed.slurp.net>
Source record: 101346

Absolutely. Van Gornden, Budwig, and many others. Check the Ham Radio
on-line retail catalogs...

73,
Mike KI6PR
El Rancho R.F. CA

"Richard" wrote
> I want to make a VHF receiving dipole with say 1/4" tubing. Can you buy
> plastic dipole centerpeices? TIA.
>
>
>

1125. mobile antenna impedance continuation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 17:42:58 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <1015bp6gs5gfd56@corp.supernews.com>
Source record: 101348

Well I got the Nott antenna last night but I had to fix the control box first;
Cold solder joint.

Impedance at resonance with an MFJ analyzer:

band Hustler Tarheel Nott
80 21 ohms 9 ohms 10 ohms
40 25 11 11
20 30 30 19
10 40 32 47

Before switching both antennas back and fourth untill I get repeated, consistent data, I think I'll mount another ball on the left side of my Durango a foot below the one on the right. That'll ensure both coil tops are the same height.
I propose to match both with autoformers and do comparative field strength measurements
when I get the TS-480 installed.

73
H.
NQ5H

1126. Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 17:43:39 UTC
From: Jeff <jeff@rodentiaREMOVETHIS.org>
Message-ID: <jeff-897BF0.12433924012004@corp.supernews.com>
Source record: 101347

Hello.

I live in a third floor apartment without a balcony. As such, finding a way to erect an antenna has been a challenge. My home station is a 2M mobile transceiver (Yaesu FT-2800M) which I've been attempting to find an optimal antenna arrangement without satisfaction.

I originally constructed a J-pole from 450-ohm ladder line that I had hanging in our bedroom corner (the corner where it displayed the best SWR), but the walls of this apartment apparently have alot of metal in them that apparently affect my signal from it. I've attempted hanging it in various places around our place and I've not gotten good reports. Also, I exceed RF safety when I work simplex on 65W with this. My power supply also lets me know this by buzzing during transmission. So.. I had to find a different method.

We've got a wall air conditioner sticking out the side of our building with a metal box covering it. I can place a mag mount on and attach a mobile antenna to with satisfactory results. However, a small base magmount like an MFJ dual band (a 3" diameter mag base) seems to work quite well with a flat SWR, but I'd like to attach a more efficient antenna to it.

I've got a 5" base Comet mag mount that I've attached both a Diamond NR2C (2M 4.1dB center loaded mobile antenna) and a Diamond SG7900 (a huge dualband antenna giving 5.0dB on 2M). Upon testing them on my AC box placement, the SWRs exceed 2.0:1! Nothign I can do seems to improve the SWR with these more efficient antennas.

My speculation is that the larger mag-mount base needs a larger ground plane than the AC box can provide, while the smaller MFJ magmount is sufficiently matched.

Does anyone have a suggestion on why this is occuring? Better yet, is there a way I can possibly put a larger mobile antenna on this AC box and get satisfactory SWR?

Thanks for any suggestions!

73s
Jeff
DE KB1HOL/AG
--
--
J. Rogers KB1HOL
KB1HOLatARRLdotNET

1127. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 18:55:30 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <CczQb.9545$YG.561855@twister.southeast.rr.com>
Source record: 101349

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:jhs010dr7r4ocnhujh5jiet3iti84e9rk6@4ax.com...
> On Tue, 20 Jan 2004 20:19:39 GMT, "Jimmy" <Gfender@carolina.rr.com>
> wrote:
>
> >Is an antenna that is resonant on 10 meters still a 1/4 wavelength
antenna
> >if it is physically only 4ft long
>
> No.
>
> > or would this be an 1/8 wavelength
> >antenna(more or less)
>
> Close enough to say Yes.
>
> >I am saying this should be called an 1/8 wl antenna
> >though I am arguing with those who generally know more more about this
than
> >I. Not all the old timers disagree with me, so I am betting this is a
pretty
> >common problem when discussing antennas.
>
> Hi Jimmy,
>
> If it wasn't before, it sure is now.
>
> The description is the physical size in the applied frequency's
> wavelength.
>
> Skip all the sophistries based on resonance because at 10M that could
> lead to a foot long loaded resistor being called a 107/4th's
> wavelength antenna. (After the first couple of "electrical"
> quarterwaves, why stop? Resonance certainly cannot tell which
> quarterwave it is at.) The only way to distinguish successive, odd
> quarterwavelength antennas is in their radiation resistance which
> accumulates with SIZE, not components (unless you are stringing
> resistors like christmas tree bulbs). Even then, the cumulative
> resistance does not add beyond the 3rd or 5th quarter.
>
> 73's
> Richard Clark, KB7QHC
For what it is worth I got the beer.

1128. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 19:09:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4012c3c1_2@corp.newsgroups.com>
Source record: 101350

Jeff wrote:
> I've got a 5" base Comet mag mount that I've attached both a Diamond
> NR2C (2M 4.1dB center loaded mobile antenna) and a Diamond SG7900 (a
> huge dualband antenna giving 5.0dB on 2M). Upon testing them on my AC
> box placement, the SWRs exceed 2.0:1! Nothign I can do seems to improve
> the SWR with these more efficient antennas.

What does a plot of SWR Vs frequency look like across the band?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1129. Re: 4 X 4 Post as a vertical Insulator support ???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 19:47:23 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <fZzQb.10140$YG.570077@twister.southeast.rr.com>
Source record: 101352

I would reccomend that you contact the manufacturer of the tower you are
going to use and see if they make an insulated base for it.
"Carl R. Stevenson" <wk3cqth@wk3c.com> wrote in message
news:iHydnTj0Y-rtYZDdUSdV9g@ptd.net...
>
> "DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message
> news:100rlghp4dj51c@corp.supernews.com...
> > I'd like to up up a fullsize 80 m vertical and support it in on 4X4
> > pressure treated posts and have it several inches
> > above ground level. Actually I was planning using using a couple of
> > sections of lightweight aluminum tower
> > with tubing out of the top for the added length. Is there
> > a problem using pressure treated lumber? Dry enough
> > to insulate well?
> >
> > Doug, N4IJ
>
>
> Doug,
>
> Pressure treated lumber is notoriously high in moisture content.
> Also, it is heavily impregnated with chemicals which would, I
> believe further increase its conductivity.
>
> While it could make a good support, I would not count on the
> wood alone as an insulator ...
>
> I would recommend that you figure out a way to use some sort
> of additional insulators.
>
> 73,
> Carl - wk3c
>

1130. upside down vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 20:09:56 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <waGdnbpDDq3IV4_d4p2dnA@comcast.com>
Source record: 101351

Hi all,

My wife wants to put up a birdfeeder and I want to put up a hidden antenna. My landlords allow
only the former but seem to be winking at the latter as long as I can assure them that it is absolutely
visible, temporary, and a hazard to no one. I also have friendly neighbors with patios on either
side of my patio, and I have thier permission to mount the far side of a wire on thier balconies.
The balconies are spaced about 20-30 feet apart.

I also have access to the ground outside so that I can mount a discreet dowel row from the dirt to perhaps a few feet above my balcony, using a clamp on the balcony to keep it steady on the top side.

My intention is to put the birdfeeder on a dowel rod which I have wound with #30 white wire and spraypainted with white paint. The dowel rod would be 15-20 feet tall, so a helical for 10-80
meters might make a lot of sense.

Here's the big question: how badly would it hurt the helical's performance to install it "upside down"? I would have a far easier time putting the capacity hat on the dirt side and hiding the hat with sand, and then mounting a 5-15 foot counter poise between balconies.

Thanks in advance,

The Eternal Squire

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.564 / Virus Database: 356 - Release Date: 1/19/04

1131. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 22:44:28 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40131c9e_3@news1.prserv.net>
Source record: 101360
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Steve and group:

I tuned my IC706 down there, and apparently the front end filters block anything that low. My Kenwood R-5000 hears the signal fine with a 100' random wire. The radio I would really like to try, the RCA AR-88LF, only goes down to 74 KHz, and I sold the old RAK? RAL? Navy monster which covers that range, so I have to believe the R-5000 on this one. The signal is a little weak mid-day, but strong the remainder of the time.

I bought one of the cheap "atomic" wristwatches last month, and have been experimenting with orientation for sync. It has an indicator which shows if it has locked up in the last 24 hours, and the manual says it tries at 3 AM in whatever time zone it is set to. The wall clocks also have a lock indicator, and their manual says they try several times in the wee hours if the first try doesn't result in synchronization. But BEWARE, I have now observed two different instances, once each with two different clocks, that while indicating that resynchronization had occurred the previous evening, the clock indicated the time which was exactly 1 minute off, apparently due to a thunderstorm during the night.

The orientation where the wristwatch synchronizes reliably is face down, BTW.

--
Crazy George
Remove N O and S P A M imbedded in return address

1132. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 23:30:12 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40130004.CF5E3730@cwis.net>
Source record: 101353

Richard,
I would think that would depend on what you can find
available,
PVC, plexiglas, 'Delrin', who knows what else. I've used a
multi-
layer thingy of plexiglas glued together before, seemed to work
okay. So the question is 'what can you find?'.
'Doc

1133. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 23:37:49 UTC
From: Ian <krb@lycos.co.uk>
Message-ID: <jlDQb.10458$YV1.7215@newsfep4-winn.server.ntli.net>
Source record: 101354

Hello,

Oh yes, pull the other one. If anyone wants to send me a new shack I'll promise to send a post card. Emergency work should be left to professionals paid to do the job. They can quite often do without people getting under their feet and in the way! There is an amateur/CB group in the UK that causes a bit of annoyance like that, people must just like dressing up as pretend police men. The public take absolutely no notice, and amateurs/CBers don't either.

"N2ION" <n2ion@aol.com> wrote in message
news:20040123092419.20558.00000299@mb-m21.aol.com...
> Long Island Mobile Amateur Radio Club (LIMARC), is looking for DONATIONS
of
> "Ham" gear, like triband beams, rigs, and towers, to be used for our
Emergency
> Communication Stations, and Field Day.
>
> If you have any old equipment that you're not using anymore, and would
like to
> donate it to our cause, we will make sure that you get a nice letter,
being
> that we have 503 c(3) status with the I.R.S. ,for a tax deduction, from
our
> club.
> We really need your help, so please try to assist us in any way that you
can.
>
> Thanks in advance

1134. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 23:47:04 UTC
From: chris-google@pobox.com
Message-ID: <ba42132e.0401241547.5ceff345@posting.google.com>
Source record: 101355
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

remove_ok1sip@atlas.cz (OK1SIP) wrote:
> try to make a rectangular coil, about 1 ft x 1 ft, some 30 turns wound
> by a fairly thin magnet wire (#25 to #30). Bring it into resonance at
> 60 kHz by a capacitor, some 8000 - 10000 pF. Place the coil
> vertically, aiming to the transmitter, and place the clock to its
> center. You do not need any mods of the clock. The signal should be
> significantly stronger.

[I asked this a couple days ago but it was at the tail end of a longer
message so maybe that's why nobody replied.]

Can I stack wire turns, and if not, why not? It seems that all the
designs have the wire turns lined up next to each other like:

*****

and never

*****
*****
*****

Is there something about keeping each loop *exactly* the same
circumferential length (not even 0.2% difference) that dramatically
affects loop antenna performance? Or some other affect?

I'd like to fill a 5mm x 5mm cross section around the perimeter of the
clock with wire turns, which means stacking them.

1135. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-24 23:51:34 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <mq06109u6458jdkpps999vo9bsruvqgjer@4ax.com>
Source record: 101356

On Sat, 24 Jan 2004 12:43:39 -0500, Jeff <jeff@rodentiaREMOVETHIS.org>
wrote:

>Hello.
>
>I live in a third floor apartment without a balcony. As such, finding a
>way to erect an antenna has been a challenge. My home station is a 2M
>mobile transceiver (Yaesu FT-2800M) which I've been attempting to find
>an optimal antenna arrangement without satisfaction.
>
>I originally constructed a J-pole from 450-ohm ladder line that I had
>
>We've got a wall air conditioner sticking out the side of our building

>My speculation is that the larger mag-mount base needs a larger ground
>plane than the AC box can provide, while the smaller MFJ magmount is
>sufficiently matched.
>
>Does anyone have a suggestion on why this is occuring? Better yet, is
>there a way I can possibly put a larger mobile antenna on this AC box
>and get satisfactory SWR?
>
For reference, a good ground plane should be a least a radius of 14
wavelength around the base of the antenna. Two strips of metal at
right angles works reasonably, and the plane need not be solid, aas
long as the holes are not too large in relation to the wavelength.

Theoretically speaking, a ground plane for 2M should be a radius of
19.25 inches.

Practically speaking, I have had good results with a magmount 2M on a
standard cookie sheet, inside the house (single story wood
construction).

There is a book called "Stealth Antennas" which may help you.

Also keep in mind that a vertical antenna can hang down from the feed
point, as well as going up from there.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1136. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 00:02:17 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <l41610tcguhamhhg8rg3kcop0b2im8loch@4ax.com>
Source record: 101357

On Sat, 24 Jan 2004 23:37:49 -0000, "Ian" <krb@lycos.co.uk> wrote:

>Hello,
>
>Oh yes, pull the other one. If anyone wants to send me a new shack I'll
>promise to send a post card. Emergency work should be left to professionals
>paid to do the job. They can quite often do without people getting under
>their feet and in the way! There is an amateur/CB group in the UK that
>causes a bit of annoyance like that, people must just like dressing up as
>pretend police men. The public take absolutely no notice, and
>amateurs/CBers don't either.
>
>"N2ION" <n2ion@aol.com> wrote in message
>news:20040123092419.20558.00000299@mb-m21.aol.com...
>> Long Island Mobile Amateur Radio Club (LIMARC), is looking for DONATIONS
>of
>> "Ham" gear, like triband beams, rigs, and towers, to be used for our
>Emergency
>> Communication Stations, and Field Day.
>>
>> If you have any old equipment that you're not using anymore, and would
>like to
>> donate it to our cause, we will make sure that you get a nice letter,
>being
>> that we have 503 c(3) status with the I.R.S. ,for a tax deduction, from
>our
>> club.
>> We really need your help, so please try to assist us in any way that you
>can.
>>
>> Thanks in advance
>

The world is a very big place, Ian and not all of it is the UK. Some
of us out here in the real world belong to volunteer groups that have
memoranda of understanding with our served organizations and we
practice and drill with them regularly. This is especially true here
in North America where there are areas that are often hit with
extremely severe weather. Some of us are even those "paid
professionals". In fact, most of the fire protection in the US is
provided by volunteers. Unpaid professionals, as it were. Paid
professional fire departments are usually only found in large cities
and densely populated suburban areas.

My first-year composition professor's advice rings especially true here - "write what you know".

Russ

1137. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 00:08:13 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <o42610l87a5mip8c9449pcqkcujgmvopat@4ax.com>
Source record: 101358

On Fri, 23 Jan 2004 22:07:12 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:

>
>"Richard" <nearlynews_email@ntlworld.com> wrote in message
>news:bus55t$ip3st$1@ID-150848.news.uni-berlin.de...
>> I want to make a VHF receiving dipole with say 1/4" tubing. Can you buy
>> plastic dipole centerpeices? TIA.
>
>
>I mean a plastic center which has socket holes, which you push the tube
>into.

For 2 meters I'd use 1/2 inch copper pipe for the dipole and then a
plastic "T" would work for the center insulator. Just glue the pipe
in place.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>

1138. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 00:47:24 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <dlEQb.7881$L04.3812@bignews4.bellsouth.net>
Source record: 101359

"Eric Oyen - N7ZZT" <n7zzt@127.0.0.1> wrote in message
news:pan.2004.01.24.02.41.11.312244@127.0.0.1...
> On Thu, 22 Jan 2004 18:18:59 -0500, Jerry Oxendine wrote:
>
> > >
> > >
> > >
> > > I tried to explain to some of the guys on rec.radio.cb that that antenna
> > > is no more "beam" that a boar hog with teats. I was met with blistering
> > > comment from some of the resident experts. LOL!!
> > >
> > > Jerry
> > ROFLMAO!
>
> "resident experts"? oh boy... well, having built my own antenna, I do find
> the marketing of particular brands comical at best (and those so-called
> "resident experts" are nothing more than snake-oil salesmen).
>
> I've often found that a full wave loop on 11 meters outperforms an
> end-fed half wave antennal (the solarcon antron-99 comes to mind as such)
> and has a lot less profile. I used to run that one for some time before I
> finally gave up on CB (and 11 meter equipment) and went whole hog into ham
> radio. much of what I learned for building antennas on 11 meters works
> nicely on 6, 2, 1.25 and .70 meters nicely. I am in process of building a
> stacked full wave loop system for .70 (using phased line feed systems) and
> should expect some gain in the verticle polarization. Its sure as hell
> cheaper than buying a ready made antenna though.
>
> still, the "experts" on rec.radio.cd havea lot to learn. sure those
> loading coils on vehicle mounted antennas look nice, but do they really
> perform as advertised. only field testing will tell for certain.
>
> DE N7ZZT
> Phoenix, Arizona
>
> --
> the difference between intelligence and stupidity is that intelligence
> has its limits.

Sometimes "looks impressive" is most important to the
radio wannabe! I knew a fella that bought a GLA Texas
Bugcatcher and wanted it installed. I had tried to talk him
out of it explaining he would've been just as well off with a $15 whip.
Nuttin' doin'. He wanted to "look" impressive to his buddies. So, we

installed his 4" dia bugcatcher and tuned it up for 27 MHZ. Of course, the loading coil was not being used at all!

.....(sigh) What a waste of a great antenna!

Jerry

>

1139. A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 02:01:17 UTC
From: Nova_Man73@webtv.net
Message-ID: <1571-4013236D-220@storefull-3278.bay.webtv.net>
Source record: 101362

I recently built a two meter j-pole.In the plan,I saw no mention of pvc use.Yet,I had to place a piece of pvc between the two uprights to get the swr to fall.Is there something I missed?
Also,I have been thinking about long-wire antennas.Every long-wire I've seen has been in an East-to-West direction.How would it work if I divide the wire lengths and transform a long-wire into multiple directions?I realize most foreign lands are to the East and West,but what about the North and South coverage?

1140. New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 02:03:01 UTC
From: Minnie Bannister <GoonButNotForgotten@myob.net>
Message-ID: <10168un9ulibh80@corp.supernews.com>
Source record: 101361

Anybody know anything about this one?

http://www.onemantowers.com/index.html

Alan AB2OS

1141. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 02:24:22 UTC
From: redstickham@yahoo.com
Message-ID: <d57d63e8.0401241824.14d58bea@posting.google.com>
Source record: 101363

Jeff <jeff@rodentiaREMOVETHIS.org> wrote in message
news:<jeff-897BF0.12433924012004@corp.supernews.com>...
> Hello.
>
> I live in a third floor apartment without a balcony. As such, finding a
> way to erect an antenna has been a challenge. My home station is a 2M
> mobile transceiver (Yaesu FT-2800M) which I've been attempting to find
> an optimal antenna arrangement without satisfaction.
>
> I originally constructed a J-pole from 450-ohm ladder line that I had
> hanging in our bedroom corner (the corner where it displayed the best
> SWR), but the walls of this apartment apparently have alot of metal in
> them that apparently affect my signal from it. I've attempted hanging it
> in various places around our place and I've not gotten good reports.
> Also, I exceed RF safety when I work simplex on 65W with this. My power
> supply also lets me know this by buzzing during transmission. So.. I had
> to find a different method.
>
> We've got a wall air conditioner sticking out the side of our building
> with a metal box covering it. I can place a mag mount on and attach a
> mobile antenna to with satisfactory results. However, a small base
> magmount like an MFJ dual band (a 3" diameter mag base) seems to work
> quite well with a flat SWR, but I'd like to attach a more efficient
> antenna to it.
>
> I've got a 5" base Comet mag mount that I've attached both a Diamond
> NR2C (2M 4.1dB center loaded mobile antenna) and a Diamond SG7900 (a
> huge dualband antenna giving 5.0dB on 2M). Upon testing them on my AC
> box placement, the SWRs exceed 2.0:1! Nothign I can do seems to improve
> the SWR with these more efficient antennas.
>
> My speculation is that the larger mag-mount base needs a larger ground
> plane than the AC box can provide, while the smaller MFJ magmount is
> sufficiently matched.
>
> Does anyone have a suggestion on why this is occuring? Better yet, is
> there a way I can possibly put a larger mobile antenna on this AC box
> and get satisfactory SWR?
>
> Thanks for any suggestions!
>
> 73s
> Jeff
> DE KB1HOL/AG

> --

In apartments wanting to work 2 meters, I've used a mobile magmount on anything made of metal, such as a metal panel for the central air and heat, a refrigerator, a stove(when I wasn't cooking of course), a metal cabinet, and have had good results with both a 1/4wave and a 5/8wave magmount.

It worked well for repeaters and simplex. I'm currently running a 1/4wave vertical on top of a metal cabinet and with just a few watts on a handheld, I can put out a good signal for miles simplex.

Hope this helps.

Red

1142. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 02:41:54 UTC
From: Bob McConnell <rmcconne@NOSPAM.lightlink.com>
Message-ID: <as5610dhs97aupcrd5f8a2ts2ilj3qp0cf@4ax.com>
Source record: 101364
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

I have very little problem with my manhood. I have a son with a Master of Music (Education) that is a respected teacher. He has a lovely wife and three wonderful children. I have a daughter with an accounting degree that manages a billing department responsible for preparing invoices totalling nearly $30M last year. I have another son at Fort Brag NC in special forces training, and a third son learning the construction business from the ground up. I survived 2 trips to Vietnam on a US Navy destroyer. My wife (also a Navy veteran) and I are approaching our 31st wedding aniversary. Any of these acomplishments are far and away more important than any award or recognition available from amateur radio.

My problem, due to a number of hams of all ages I have met both in this area and elsewhere, are those that use their ticket, awards, contest status or shack as their primary means of identifying who they are and how necessary they are to the hobby. Maybe they never learned what is important, or just don't have a life. Maybe that's what all Ivy Leaguers are like (most of these are from Cornell). But they sure seem to be in the majority in this hobby. And it appears that most of what the ARRL has done in the past several decades was simply to encourage them with more wallpaper to brag about.

Yes, I know there are others out there that are more like you claim to be, and without them, this hobby probably would have died out years ago. But around here they are few and far between. I know of at least two clubs in this area that don't have any. (Actually, one of them did have two, but one got called up and sent to Iraq two years ago. Then the other got frustrated and left the club.) Neither of those clubs does any public service events, offer any classes or do any demonstrations or open houses. Their planning for field day sounds more like preparation for war, and outsiders are not welcome. They are so self centered, that they won't even talk to newcomers until they know how they stack up. That means they still won't talk to some of us that have intermittantly attended their meetings for over three years. I know of three hams that flat refuse to attend their meetings any more. One of them sold all of his VHF and UHF gear so he wouldn't even have to listen to them on the air. He focuses entirely on HF DX.

I hope conditions are better in your area.

Bob McConnell
N2SPP

On Fri, 23 Jan 2004 20:13:37 -0500, "W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote:

>I disagree with your premise Bob, I hope that you are not so insecure with
>your manhood that you would find the success of others a threat.
>
>Many of us older farts strive for excellence, we use various means to
>measure how we compare to others. Do not confuse pride in accomplishment
>with ego.
>
>In spite of what the feel good types tell you, competition is a basic human
>instinct. Keeping score is the way to quantify the competition.
>
>To distain the accomplishments of others as "ego" is both supercilious and
>lacking in the basic understanding of the human condition.
>
>"Bob McConnell" <rmcconne@NOSPAM.lightlink.com> wrote in message
>news:ofg3109bbbqfdm9ip1r6n8mgnkcamr0ou6@4ax.com...
>> On Wed, 21 Jan 2004 18:19:04 -0600, Cecil Moore
>
>> Unfortunately, there are far too many for whom the value of their
>> license is measured in how many people it allows them to look down
>> their noses at. Their only motivation for moving up was so they could
>> gloat over how much better they are than anyone that isn't up to their
>> standards. This is also the primary reason that contests and awards
>> are rubbed in our faces in most of the magazines and newsletters. This
>> is the crowd the ARRL has been cutivating for years, because they
>> don't care about advancing the state of the art, or building their own
>> equipment, helping others, or any of the other aspects of the hobby
>> that used to make it great. They simply want to buy the newest,
>> coolest, fanciest or most expensive rig to help them along on their
>> ego trip, which keeps the advertisers happy.
>>
>> Somebody let me know when QST no longer has any contests or award
>> notices in it. Then I *might* be interested in looking at it again.
>>
>> Bob McConnell
>> N2SPP
>>
>

1143. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 02:52:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4013302c$1_8@corp.newsgroups.com>
Source record: 101366

Minnie Bannister wrote:
> Anybody know anything about this one?
> http://www.onemantowers.com/index.html

A self-supporting 50 foot tower in a 100 mph wind would have to have
a pretty good foundation. Better obtain their foundation cost specs
before buying the tower.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1144. Re: 4 X 4 Post as a vertical Insulator support ???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 02:54:09 UTC
From: "Dr. Daffodil Swain" <wa4jm@earthlink.net>
Message-ID: <ldGQb.23192$q4.20813@newsread3.news.atl.earthlink.net>
Source record: 101365

Forget trying to insulate the bottom of a tower. Simply shunt feed it!

"Jimmy" <Gfender@carolina.rr.com> wrote in message
news:fZzQb.10140$YG.570077@twister.southeast.rr.com...
> I would reccomend that you contact the manufacturer of the tower you are
> ging to use and see if they make an insulated base for it.
> "Carl R. Stevenson" <wk3cqth@wk3c.com> wrote in message
> news:iHydnTj0Y-rtYZDdUSdV9g@ptd.net...
> >
> > "DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message
> > news:100rlghp4dj51c@corp.supernews.com...
> > > I'd like to up up a fullsize 80 m vertical and support it in on 4X4
> > > pressure treated posts and have it several inches
> > > above ground level. Actually I was planning using using a couple of
> > > sections of lightweight aluminum tower
> > > with tubing out of the top for the added length. Is there
> > > a problem using pressure treated lumber? Dry enough
> > > to insulate well?
> > >
> > > Doug, N4IJ
> >
> >
> > Doug,
> >
> > Pressure treated lumber is notoriously high in moisture content.
> > Also, it is heavily impregnated with chemicals which would, I
> > believe further increase its conductivity.
> >
> > While it could make a good support, I would not count on the
> > wood alone as an insulator ...
> >
> > I would recommend that you figure out a way to use some sort
> > of additional insulators.
> >
> > 73,
> > Carl - wk3c
> >
>
>

1145. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 03:03:04 UTC
From: Mike Coslo <mcoslo@enoughalreadyadelphia.net>
Message-ID: <wfednRB3sIR0rl7dRVn-uA@adelphia.com>
Source record: 101367

Richard Clark wrote:

> On Fri, 23 Jan 2004 20:36:54 GMT, "Jimmy" <Gfender@carolina.rr.com>
> wrote:
>
>
>>ART, I too have lost portions of my antenna due to ice storms, I was able to
>>retune and still operate my station with the damaged antenna. Howeever ther
>>is no way I could tell you if it was better or worse as no reference had
>>benn previously established for comparison. I seriously doubt if those
>>others that this has happened to had a chance to establish some meaningful
>>reference either.
>>I too am familar with the statement reguarding spacing between the ends of
>>the antenna. I find it both amusing and incredible that anyone could take
>>this to mean that cutting off the ends of the antenna will cause an increase
>>in gain.
>>
>
>
> Hi Jimmy,
>
> Anecdotal evidence is what sells antennas like the eh, even in the
> face of their higher efficiency claims resulting in 30dB poorer
> signals.
>
> The argument for clipping off "unused" parts of antennas (especially
> yagis) is a howler. It is much like a suggestion to paint out the
> parts of the telescope lens that you don't look through. Would the
> telescope still work? On the boresight perhaps (no field of view, but
> with no more magnification for it though), with less light (you can
> only use it at local noon), and more fringing (artifacts due to BW
> restriction). No doubt there would be someone to offer glowing
> testimonial to that advance in science that so confounds the experts.
> (And waiting for a Patent publication for special telescope
> enhancement paint.)

Well Richard, have you not heard of the famous aperture mask? Reduces
the aperture of the telescope, and there are people that swear by them!

And, they don't work either. Your analogy is quite correct.

At best they can improve apparent contrast. But at a reduction in detail.

- Mike KB3EIA -

1146. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 03:03:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401332d3$1_8@corp.newsgroups.com>
Source record: 101368

Donnie B wrote:
> Also,I have been thinking about long-wire antennas.Every long-wire I've
> seen has been in an East-to-West direction.How would it work if I divide
> the wire lengths and transform a long-wire into multiple directions? I
> realize most foreign lands are to the East and West,but what about the
> North and South coverage?

An unbalanced long-wire antenna that is longer than about 3/4WL doesn't
have much broadside radiation. Unless one understands what one is doing,
radiation patterns for long-wires are pretty much hit or miss.

BTW, radio waves follow great circles, not lines of longitude. From
Texas, a radio wave travels over Lake Erie and Newfoundland on its
way to England.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1147. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 03:26:10 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40133752.E3E5A7DF@cwis.net>
Source record: 101269

All that I know about this particular tower is what I've
seen on the website given. I think raising the tower sections
in this way is a pretty 'niffy' idea. As for the rest of the
tower, it seems like just another 'square' tower with something
like the 'hazer' added. Nothing wrong with it as far as I could
see, but also not really anything 'special'.
As Cecil said, any 'free standing' tower needs to have a very
good (and large) base under it. Of course, that depends a lot
on
the type of soil it's in, but compared to a guyed tower in the
same 'dirt', get ready for a suprise when you find out just how
big that base has to be (then hang on to your wallet).
I think the 'unsafe' guys in the advertising is a bit much.
Sure, guys are not something to play on/around, and you do have
to
pay attention so that you don't 'clothes line' your self, but
are
they as 'unsafe' as implied? I doubt it. At least, not if they
are done right.
Can't say it isn't a nice tower, but I think you could do
just
as well with another brand at a much cheaper total price. Then
again,
I didn't see a price...
'Doc

1148. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 03:31:55 UTC
From: dplatt@radagast.org
Message-ID: <1016e5bdt0lop29@corp.supernews.com>
Source record: 101270

>Oh yes, pull the other one. If anyone wants to send me a new shack I'll
>promise to send a post card. Emergency work should be left to professionals
>paid to do the job. They can quite often do without people getting under
>their feet and in the way! There is an amateur/CB group in the UK that
>causes a bit of annoyance like that, people must just like dressing up as
>pretend police men. The public take absolutely no notice, and
>amateurs/CBers don't either.

I'm sorry your situation is so poor over there. Believe me, it doesn't have to be that way. It's possible to train the amateur operators properly (so they know how to provide useful communications, and how _not_ to get in the way and make things worse), and set up official well-understood arrangements by which amateurs can provide useful-and-sometimes-critical backup communications. This role as emergency communicators is, in fact, a big part of the legal justification for amateur radio as written into U.S. law.

In my own city, the amateur emergency-communication group is affiliated with the city fire department - most of us are sworn in as volunteers with the FD, and have had background checks run and photo IDs issued. The ARES/RACES radio shack is in the Police & Fire administration building, we've got perhaps a half-dozen antennas up on their towers, the city provides a substantial budget for the purchase and upkeep of amateur radios and the necessary equipment and antennas, we have amateur-radio antennas pre-staged on all of the city fire stations and at the hospitals, and have a good working relationship with the city emergency services manager. We run drills every quarter, have training classes once a month, and encourage amateurs to become involved with their community CERT groups (for which the city provides free emergency-response training classes). A lot of other cities do as much, or more.

In an emergency (e.g. earthquake, a big issue around here!) it's very likely that the number of trained amateur-radio communicators our group can activate will exceed the total number of police officers and firemen. We might even double their number - a lot of the public safety officers live an hour's drive or more outside the city and may not be able to get to work for _days_ after an earthquake.

I can't say that I particularly care for the monthly "please send us your equipment" capital-letters boilerplate posting you're responding to... but the poster's motives and justifications are not as suspect as you seem to feel, I think.

--
Dave Platt <dplatt@radagast.org> AE6EO

Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1149. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 03:34:38 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4013394E.52C6DDEA@cwis.net>
Source record: 101271

Jeff,
Try using the AC as a mounting point for a horizontal
bar running out far enough to mount an antenna on, such
as some type of 'base'(?) antenna.
All antennas have to be tuned and/or impedance matched.
Any antenna near obstructions will have undesirable
characteristics compared to the same antenna in the 'clear'.
I think what you're seeing is fairly 'normal' for your
situation. Good luck...
'Doc

1150. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 03:41:13 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40133AD9.1AED32A4@cwis.net>
Source record: 101273

N2ION,
How many members in your club? Any of them contribute
gear? Time? Can you think of a good way to prove to me
that you are ligitimate, not another scam?
'Doc

1151. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 04:20:27 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <buvg6c$en3u$1@news3.infoave.net>
Source record: 101276
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

You Sir have the opportunity to corrct all that. The beauty of Ham radio is that anyone can start a club.

Maybe it's time you do so and correct all the ills you have observed.

Remember every one has a purpose in life, even if only as a bad example. Now that you know what NOT to do, the rest is easy.

"Bob McConnell" <rmcconne@NOSPAM.lightlink.com> wrote in message news:as5610dhs97aupcrd5f8a2ts2ilj3qp0cf@4ax.com...
> I have very little problem with my manhood. I have a son with a Master

1152. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 04:34:34 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <O-ednSFXvZR5pI7dRVn-gg@ctc.net>
Source record: 101272

> Minnie Bannister wrote:
> > Anybody know anything about this one?
> > http://www.onemantowers.com/index.html
>
> A self-supporting 50 foot tower in a 100 mph wind would have to have
> a pretty good foundation. Better obtain their foundation cost specs
> before buying the tower.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Yea, allow about 6 to 10 yards of concrete for starters.
Not sure how big of a hole that would take right off in dimensions.

1153. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 04:38:18 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <MdqdnWeAPdMjp47d4p2dnA@ctc.net>
Source record: 101274

```
"> >
> > Richard,
> > I haven't seen anything like that sold commercially,
> > but I don't see why you couldn't make one. Ought to be
> > able to find a source of plastics on the internet or
> > locally, maybe. Drill the holes you need and half way
> > there.
> > 'Doc
>
> What material do you think?
>

As the center of a dipole is low impedance almost any insulator will work.
If mounted outside pick something that will withstand the sun.
```

1154. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 04:45:32 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <b_ydndawid7soY7dRVn-hw@ctc.net>
Source record: 101275

> Oh yes, pull the other one. If anyone wants to send me a new shack I'll
> promise to send a post card. Emergency work should be left to
professionals
> paid to do the job. They can quite often do without people getting under
> their feet and in the way! There is an amateur/CB group in the UK that
> causes a bit of annoyance like that, people must just like dressing up as
> pretend police men. The public take absolutely no notice, and
> amateurs/CBers don't either.

In the US the hams are not doing the actual emergency work. We are used to provide communications for the services. Without power or the ability of some services to communicate with others or long range communications , the 'professional services' tend to need help in communicating.

As someone else pointed out , in many areas of the country the volunteers are all we have for fire protection and emergency medical service and transportation. I live in a rural area and appreciate the ones that provide this service. It may or may not be as good as a paid service but it is all I have .

1155. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 04:45:34 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40134b46_2@news1.prserv.net>
Source record: 101277
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Chris:

I thought someone else would answer, but here it is: For highest Q you want
the minimum capacitance between start and end, so what you suggest will
work, but try to actually make the layers carefully so the outside layers
don't collapse down to the first.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Chris Campbell" <chris-google@pobox.com> wrote in message
news:ba42132e.0401241547.5ceff345@posting.google.com...
> remove_ok1sip@atlas.cz (OK1SIP) wrote:
> > try to make a rectangular coil, about 1 ft x 1 ft, some 30 turns wound
> > by a fairly thin magnet wire (#25 to #30). Bring it into resonance at
> > 60 kHz by a capacitor, some 8000 - 10000 pF. Place the coil
> > vertically, aiming to the transmitter, and place the clock to its
> > center. You do not need any mods of the clock. The signal should be
> > significantly stronger.
>
> [I asked this a couple days ago but it was at the tail end of a longer
> message so maybe that's why nobody replied.]
>
> Can I stack wire turns, and if not, why not? It seems that all the
> designs have the wire turns lined up next to each other like:
>
> *****
>
> and never
>
> *****
> *****
> *****
>
> Is there something about keeping each loop *exactly* the same
> circumferential length (not even 0.2% difference) that dramatically
> affects loop antenna performance? Or some other affect?
>
> I'd like to fill a 5mm x 5mm cross section around the perimeter of the
> clock with wire turns, which means stacking them.

1156. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 07:19:05 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <97SdnVzKdIV58I7dRVn-jA@comcast.com>
Source record: 101278

It's a bit different in the US. Amateur emergency work is well coordinated
with the authorities and is appreciated by them.
"Ian" <krb@lycos.co.uk> wrote in message
news:jlDQb.10458$YV1.7215@newsfep4-winn.server.ntli.net...
> Hello,
>
> Oh yes, pull the other one. If anyone wants to send me a new shack I'll
> promise to send a post card. Emergency work should be left to
professionals
> paid to do the job. They can quite often do without people getting under
> their feet and in the way! There is an amateur/CB group in the UK that
> causes a bit of annoyance like that, people must just like dressing up as
> pretend police men. The public take absolutely no notice, and
> amateurs/CBers don't either.
>
> "N2ION" <n2ion@aol.com> wrote in message
> news:20040123092419.20558.00000299@mb-m21.aol.com...
> > Long Island Mobile Amateur Radio Club (LIMARC), is looking for DONATIONS
> of
> > "Ham" gear, like triband beams, rigs, and towers, to be used for our
> Emergency
> > Communication Stations, and Field Day.
> >
> > If you have any old equipment that you're not using anymore, and would
> like to
> > donate it to our cause, we will make sure that you get a nice letter,
> being
> > that we have 503 c(3) status with the I.R.S. ,for a tax deduction, from
> our
> > club.
> > We really need your help, so please try to assist us in any way that you
> can.
> >
> > Thanks in advance
>
>

1157. am loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 11:51:06 UTC
From: lou1@westnet.com
Message-ID: <9f565180.0401250351.49d12250@posting.google.com>
Source record: 101279

am selling a radio shack AM loop. comes with box. only used once.
contact me by email if interested.
Lou1@westnet.com

1158. Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 14:03:59 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <4013ccca$1_2@news.vo.lu>
Source record: 101280
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

Hi,

Was your house/shack stroken by Thor's hammer, I mean a lightning recently ?
I am interested in your experience...

If your installaiton was damaged by a strike event, I would like to now if :
- you used a central ground point bonded to an external grounding system, as well as the home ground.
- you left some gears switched on during the strike event
- you left the TX switched on and the coaxial plugged without protection
- you installed or not lightning controllers in your electric distribution panel
- you had installed another protection
- you swicthed off and unplugged all devices
- you think that the energy came back via the grounding network (probably dut to a difference of potential in a device)

Tell me only in a few words what was the most probable cause of the accident.

At last, if you master the subject, do you really think that a grounding system, as best it could be as the advice provided by PolyPhaser for example, will never protect you against a direct strike on your antenna or on the house lightning conductor
Why ?

All this will help me to conclude the article dealing with this matter :
http://www.astrosurf.com/lombry/qsl-lightning-protection.htm

Thanks in advance

NB. Answer preferably through these forums to please everybody.

Thierry
ON4SKY

1159. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 14:47:48 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <dok710lanid8hfk4iglcuhb9ro1k543apu@4ax.com>
Source record: 101281

On Sat, 24 Jan 2004 23:34:34 -0500, "Ralph Mowery" <rmowery@ctc.net>
wrote:

>
>> Minnie Bannister wrote:
>> > Anybody know anything about this one?
>> > http://www.onemantowers.com/index.html
>>
>> A self-supporting 50 foot tower in a 100 mph wind would have to have
>> a pretty good foundation. Better obtain their foundation cost specs
>> before buying the tower.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
>Yea, allow about 6 to 10 yards of concrete for starters.
>Not sure how big of a hole that would take right off in dimensions.
>
That's in the ballpark of a small concrete house foundation, isn't it?

That would be 162 cu ft (for 6 yards of concrete) or
10 x 10 x 1.6 ft, or
6 x 6 x 4.5 ft.

For reference, 10 yards is the typical capacity of a cement mixer
truck.

For any project, you need to look at the total cost of installation
and all components, not just the primary component.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1160. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 15:04:46 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <1017mok3kj6bfa2@corp.supernews.com>
Source record: 101282
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

I believe lightning struck my chimney and took out the lawn sprinkler
control system and a couple of appliances. After a while I found the
reason. The clamp on the ground rod for the house ground wire had
disintegrated and I think the disintigration was caused by galvanic action.
I just replaced with awhat I thought was a better one and the new one didn't
corrode.
73
hank wd5jfr
"Thierry" <To answer me in private use
http://www.astrosurf.com/lombry/post.htm> wrote in message
news:4013ccca$1_2@news.vo.lu...
> Hi,
>
> Was your house/shack stroken by Thor's hammer, I mean a lightning recently
?
> I am interested in your experience...
>
> If your installaiton was damaged by a strike event, I would like to now if
:
> - you used a central ground point bonded to an external grounding system,
as
> well as the home ground.
> - you left some gears switched on during the strike event
> - you left the TX switched on and the coaxial plugged without protection
> - you installed or not lightning controllers in your electric distribution
> panel
> - you had installed another protection
> - you swicthed off and unplugged all devices
> - you think that the energy came back via the grounding network (probably
> dut to a difference of potential in a device)
>
> Tell me only in a few words what was the most probable cause of the
> accident.
>
> At last, if you master the subject, do you really think that a grounding
> system, as best it could be as the advice provided by PolyPhaser for
> example, will never protect you against a direct strike on your antenna or
> on the house lightning conductor
> Why ?
>
> All this will help me to conclude the article dealing with this matter :
> http://www.astrosurf.com/lombry/qsl-lightning-protection.htm
>

> Thanks in advance
>
> NB. Answer preferably through these forums to please everybody.
>
> Thierry
> ON4SKY
>
>

1161. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 15:49:25 UTC
From: "Airy R. Bean" <airy.r.bean@lycos.co.uk>
Message-ID: <bv0omh$n88t6$1@ID-217727.news.uni-berlin.de>
Source record: 101284
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

"Let us spray"?

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:1017mok3kj6bfa2@corp.supernews.com...
> I believe lightning struck my chimney and took out the lawn sprinkler
> control system and a couple of appliances.

1162. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 15:52:27 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <d0p710le4tcknlv2e7480434k2267ug72i@4ax.com>
Source record: 101285

On Sun, 25 Jan 2004 11:33:38 -0500, "Ralph Mowery" <rmowery@ctc.net>
wrote:

>As you have shown there are many ways to pour the material . I am sure the
>tower maker has their recommendations. I doubt it would do much good to
>have it only 1.5 feet deep and 10 feet wide. I would think it would be
>poured in more of a cubic form but deeper than it is wide. Also there is
>all the rebar to install correctly and if it is like some Rohn tower there
>is a specification of some rocks and sand at the bottom of the hole.
>Towers are not somthing youjust stick up and hope for the best.
>
Agreed, it is not something to make up as you go along. You should
have something designed by a civil engineer, including off-the-shelf
designs.

This would simplify getting a building permit, especially if your town
engineer is unfamiliar with antenna towers. Might make your next-door
neighbor happier, too.

This includes how the bedding under the foundation is handled.
Adjustment for frostline in your area is needed as well.

A non-guyed tower is especially dependent on the strength of its
foundation, and if you do the math of the windload leveraged from the
top of the tower, some rather impressive forces are generated.

The rebar needs to be tied together both physically and electrically,
and thought needs to be given to grounding, both for lightning/short
circuits and for a radio counterpoise.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1163. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 15:54:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4013e78e$1_5@corp.newsgroups.com>
Source record: 101286

CW wrote:
> It's a bit different in the US. Amateur emergency work is well coordinated
> with the authorities and is appreciated by them.

Same for ordinary citizens with concealed handgun permits.
The violent crime rate has nose-dived in the USA while
sky-rocketing in Australia, Canada, and the UK.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1164. more screwdriver data

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 16:16:18 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <1017r3e7hv0kab@corp.supernews.com>
Source record: 101287

I thought I saw a difference on 20 between the Nott and the Tarheel so I did
it again:

System: ball mount on Dodge Durango right rear.
I'm inside with an MFJ analyzer and about a foot of coax direct to the
antenna.
No matching network. Tune to resonance (X=0).

Today's measurements:
At resonance on 20 meters the Nott is 20 ohms and the Tarheel is 31 ohms.
Maybe copper vs aluminum does matter.
H.

73
NQ5H

1165. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 16:33:38 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <7dSdnSOhILj_f47dRVn-vg@ctc.net>
Source record: 101283

> >
> >Yea, allow about 6 to 10 yards of concrete for starters.
> >Not sure how big of a hole that would take right off in dimensions.
> >
> That's in the ballpark of a small concrete house foundation, isn't it?
>
> That would be 162 cu ft (for 6 yards of concrete) or
> 10 x 10 x 1.6 ft, or
> 6 x 6 x 4.5 ft.
>
> For reference, 10 yards is the typical capacity of a cement mixer
> truck.
>
> For any project, you need to look at the total cost of installation
> and all components, not just the primary component.

As you have shown there are many ways to pour the material . I am sure the tower maker has their recommendations. I doubt it would do much good to have it only 1.5 feet deep and 10 feet wide. I would think it would be poured in more of a cubic form but deeper than it is wide. Also there is all the rebar to install correctly and if it is like some Rohn tower there is a specification of some rocks and sand at the bottom of the hole. Towers are not somthing youjust stick up and hope for the best.

1166. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 17:06:09 UTC
From: David Morgan <david@vanguard2.freeserve.co.uk>
Message-ID: <bv0t1t$5ij$1@newsg3.svr.pol.co.uk>
Source record: 101288
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

Safe Breaker wrote:
> On Sun, 25 Jan 2004 15:49:25 -0000, "Airy R. Bean"
> <airy.r.bean@lycos.co.uk> wrote:
>
>> "Let us spray"?
>>
>
> Face it, if wit was sh*t you'd be constipated.

I think you're being a bit harsh on Airy

--
David

1167. WTB: Comet GP-9 base antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 17:16:41 UTC
From: awiecek@hotmail.com
Message-ID: <7234248e.0401250916.7b093e4d@posting.google.com>
Source record: 101289
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Hi All...

I'm looking to purchase (or trade) a dual band base antenna. Mostly interested in Comet GP-9. Please email me with your price at ve3gop@rogers.com
If you're interested in a swap, I've got a Motorola MRX100 rig with mic, cables and manual (excellent condition). Other items for consideration here are Bearcat BC560XLT scanner, working LORAN-C receiver and Timewave DSP filter (older model).

thanks es 73s
Alex VE3GOP

1168. Piss and Moan

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 17:19:12 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <7USQb.12978$Se.6038@lakeread05>
Source record: 101290
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

They Pissed and Moaned when incentive licensing hit...

And they still Piss and Moan when non-incentive licensing hits..

what goes around, comes around...

Pete

1169. High SWR on Magnetic Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 17:53:40 UTC
From: Gery Duyck <Gery@duyck-co.be>
Message-ID: <401402ac$0$784$ba620e4c@news.skynet.be>
Source record: 101291

I'm building a magnetic loop for 7Mhz and 14Mhz.
Here are the specs of my antenna:
- loop length (perimeter): 6m
- coper diameter: 18mm
- loop diameter: 189cm
- feeding loop diameter: 38cm

Calculated tuning capacitor settings:
for 7Mhz: 84.9pF
for 14Mhz: 16.5pF

at this moment I use a 2 x 25pF air capacitor only for testing.
(the distance between the plates are too small)
I know somebody who can make a large butterlfy capacitor.

When transmitting on low power (5W) I get an SWR between
5 and infinite on a cross needle SWR-meter.
Doesn't matter where the capacitor is tuned to, every position
gives me the damn same results.

I checked the feed loop and all is weel soldered like this:
http://users.skynet.be/ON4CEQ/Pickup%20Loop.gif

Anybody got experience with this ??
All hint and tips are welcome!

73'
ON4GDK, Gery.

1170. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 17:56:19 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <4014033f$1_2@news.vo.lu>
Source record: 101292
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:1017mok3kj6bfa2@corp.supernews.com...
> I believe lightning struck my chimney and took out the lawn sprinkler
> control system and a couple of appliances. After a while I found the
> reason. The clamp on the ground rod for the house ground wire had
> disintegrated and I think the disintigration was caused by galvanic
action.
> I just replaced with awhat I thought was a better one and the new one
didn't
> corrode.

Indeed, without care the binding between two metals is always "at risk".
Polyphaser and other grounding kit manufacturers provide products to prevent
this kind of corrosion, including coating for anchor guys (like Anchor
Guard).

Thierry

> 73
> hank wd5jfr
> "Thierry" <To answer me in private use
> http://www.astrosurf.com/lombry/post.htm> wrote in message
> news:4013ccca$1_2@news.vo.lu...
> > Hi,
> >
> > Was your house/shack stroken by Thor's hammer, I mean a lightning
recently
> ?
> > I am interested in your experience...
> >
> > If your installaiton was damaged by a strike event, I would like to now
if
> :
> > - you used a central ground point bonded to an external grounding
system,
> as
> > well as the home ground.
> > - you left some gears switched on during the strike event
> > - you left the TX switched on and the coaxial plugged without protection
> > - you installed or not lightning controllers in your electric
distribution
> > panel
> > - you had installed another protection
> > - you swicthed off and unplugged all devices

> > - you think that the energy came back via the grounding network
(probably
> > dut to a difference of potential in a device)
> >
> > Tell me only in a few words what was the most probable cause of the
> > accident.
> >
> > At last, if you master the subject, do you really think that a grounding
> > system, as best it could be as the advice provided by PolyPhaser for
> > example, will never protect you against a direct strike on your antenna
or
> > on the house lightning conductor
> > Why ?
> >
> > All this will help me to conclude the article dealing with this matter :
> > http://www.astrosurf.com/lombry/qsl-lightning-protection.htm
> >
> > Thanks in advance
> >
> > NB. Answer preferably through these forums to please everybody.
> >
> > Thierry
> > ON4SKY
> >
> >
>
>

1171. Shootout Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 18:00:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401404fb$1_6@corp.newsgroups.com>
Source record: 101293

Someone asked me to post the following summary of three
California 75m Mobile Shootouts:

Bugcatcher/Screwdriver with top hat 0 dB reference

Bugcatcher/Screwdriver, no top hat -3 dB, -50%

Hustler -7 dB, -80%

Outbacker -9 dB, -88%

Hamstick -12 dB, -94%

Whip with autotuner -14 dB, -96%

Considering that the top legal 75m mobile antennas are
only 5%-10% efficient to begin with, a Hamstick radiates
~0.6 watts in the far field with 100 watts input. 75m
Hamstick users must really enjoy QRP. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1172. Re: source for 60 kHz loopstick antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 18:22:33 UTC
From: Ron McConnell <rcmcc@earthlink.net>
Message-ID: <JPTQb.24158$q4.5870@newsread3.news.atl.earthlink.net>
Source record: 101294
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

Michael A. Terrell wrote:
> Ron McConnell wrote:

>>I have several of the Sam's Club US$23 atomic wall clocks
>>that lock up just fine, mounted on walls facing
>>every which way. The outside temperature reading
>>433MHz receiver seems to be a flaky, marginal design,

> As far as the oudoor thermometer, Some cordless phones on the same
> band search for an open frequency, and wipe out the sync between the
> sensor and the clock. I need a cordless phone, more than the outdoor
> temperature, so I don't worry about it.

My cordless phones work on 2.4GHz and the remote thermometers
are on 433MHz - a frequency which is shared among many types
of gadgets.

I should add that there seemed to have been a redesign
of the Sam's Club clock about a year ago. The remote
temperature receiver seems better in new ones.
I have 3 different brands of atomic-clocks-with-remote-thermometers
working from one remote Sam's Club remote thermometer transmitter.

Back to ham antennas... :)

Cheers, 73

Ron McConnell

w2iol@arrl.net

N 40ï¿½ 46' 57.9" W 74ï¿½ 41' 21.9"

FN20ps77GV75 per w2iol
FN20ps77GU46 per K2RIW

Magnetic declination 13ï¿½W in early 2004

http://home.earthlink.net/~rcmcc

1173. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 18:33:01 UTC
From: "Airy R. Bean" <airy.r.bean@lycos.co.uk>
Message-ID: <bv12lp$msvn9$1@ID-217727.news.uni-berlin.de>
Source record: 101295
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

The CBer reveals herself every time that she opens her mouth....

"Safe Breaker" <me@privacy.net> wrote in message
news:gvr710lfikpnv539eosr5v1dqhgc9e32b5@4ax.com...
>
> Face it, if wit was sh*t you'd be constipated.

1174. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 19:35:25 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <6u2dnWxQut7lh4nd4p2dnA@comcast.com>
Source record: 101296

Yep. Just renewed mine.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4013e78e$1_5@corp.newsgroups.com...
>
> Same for ordinary citizens with concealed handgun permits.
> The violent crime rate has nose-dived in the USA while
> sky-rocketing in Australia, Canada, and the UK.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1175. Re: Shootout Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 20:09:46 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10188pdp86vf840@corp.supernews.com>
Source record: 101297

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401404fb$1_6@corp.newsgroups.com...
> Someone asked me to post the following summary of three
> California 75m Mobile Shootouts:
>
> Bugcatcher/Screwdriver with top hat 0 dB reference
>
> Bugcatcher/Screwdriver, no top hat -3 dB, -50%
>
> Hustler -7 dB, -80%
>
> Outbacker -9 dB, -88%
>
> Hamstick -12 dB, -94%
>
> Whip with autotuner -14 dB, -96%
>
> Considering that the top legal 75m mobile antennas are
> only 5%-10% efficient to begin with, a Hamstick radiates
> ~0.6 watts in the far field with 100 watts input. 75m
> Hamstick users must really enjoy QRP. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

Thanks Cecil.
Sure looks consistent with my data.
I've tried 'em all but the Outbacker.
Nothing like a resonant, matched, big antenna.
73
H.
NQ5H

1176. Re: High SWR on Magnetic Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 21:06:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bv1b4v$32i$1@titan.btinternet.com>
Source record: 101298

For a magloop the loop must be continuous. Do NOT cut the circle into two
halves.

Download program MAGLOOP4 to check dimensions.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

"Gery Duyck" <Gery@duyck-co.be> wrote in message
news:401402ac$0$784$ba620e4c@news.skynet.be...
> I'm building a magnetic loop for 7Mhz and 14Mhz.
> Here are the specs of my antenna:
> - loop length (perimeter): 6m
> - coper diameter: 18mm
> - loop diameter: 189cm
> - feeding loop diameter: 38cm
>
> Calculated tuning capacitor settings:
> for 7Mhz: 84.9pF
> for 14Mhz: 16.5pF
>
> at this moment I use a 2 x 25pF air capacitor only for testing.
> (the distance between the plates are too small)
> I know somebody who can make a large butterlfy capacitor.
>
> When transmitting on low power (5W) I get an SWR between
> 5 and infinite on a cross needle SWR-meter.
> Doesn't matter where the capacitor is tuned to, every position
> gives me the damn same results.
>
> I checked the feed loop and all is weel soldered like this:
> http://users.skynet.be/ON4CEQ/Pickup%20Loop.gif
>
> Anybody got experience with this ??
> All hint and tips are welcome!
>
> 73'
> ON4GDK, Gery.
>
>

1177. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 21:39:09 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <y6CdndON6b0bqondRVn-jw@comcast.com>
Source record: 101299

Just as an example, US Tower specifies a concrete slab of 4 x 4 x 7 for
their 72 foot self supporting crank up. Looking at their chart, the depth is
always more than the width.. Their spec is for 50 mph. So, for 100 mph, the
4x4x7 would be good for around 35 - 40 feet of tower.

Tam/WB2TT
"Ralph Mowery" <rmowery@ctc.net> wrote in message
news:7dSdnSOhILj_f47dRVn-vg@ctc.net...
> > >
> > >Yea, allow about 6 to 10 yards of concrete for starters.
> > >Not sure how big of a hole that would take right off in dimensions.
> > >
> > That's in the ballpark of a small concrete house foundation, isn't it?
> >
> > That would be 162 cu ft (for 6 yards of concrete) or
> > 10 x 10 x 1.6 ft, or
> > 6 x 6 x 4.5 ft.
> >
> > For reference, 10 yards is the typical capacity of a cement mixer
> > truck.
> >
> > For any project, you need to look at the total cost of installation
> > and all components, not just the primary component.
>
> As you have shown there are many ways to pour the material . I am sure
the
> tower maker has their recommendations. I doubt it would do much good to
> have it only 1.5 feet deep and 10 feet wide. I would think it would be
> poured in more of a cubic form but deeper than it is wide. Also there is
> all the rebar to install correctly and if it is like some Rohn tower there
> is a specification of some rocks and sand at the bottom of the hole.
> Towers are not somthing youjust stick up and hope for the best.
>
>

1178. Re: upside down vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 21:57:51 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4012ebef_3@newsfeed.slurp.net>
Source record: 101301

Proximity to earth is going to present some interesting tuning problems for you, but if you're feeding with a tuner anyway, you should be able to get past them.

Still, if I had my druthers, I'd prefer to see the capacity hat well above the physical ground.

73,
Mike KI6PR
El Rancho R.F., CA

"The Eternal Squire" wrote
> Hi all,
>
> My wife wants to put up a birdfeeder and I want to put up a hidden antenna.
> My landlords allow
> only the former but seem to be winking at the latter as long as I can assure
> them that it is absolutely
> visible, temporary, and a hazard to no one. I also have friendly neighbors
> with patios on either
> side of my patio, and I have thier permission to mount the far side of a
> wire on thier balconies.
> The balconies are spaced about 20-30 feet apart.
>
> I also have access to the ground outside so that I can mount a discreet
> dowel rod from the dirt to perhaps a few feet above my balcony, using a
> clamp on the balcony to keep it steady on the top side.
>
> My intention is to put the birdfeeder on a dowel rod which I have wound with
> #30 white wire and spraypainted with white paint. The dowel rod would be
> 15-20 feet tall, so a helical for 10-80
> meters might make a lot of sense.
>
> Here's the big question: how badly would it hurt the helical's performance
> to install it "upside down"? I would have a far easier time putting the
> capacity hat on the dirt side and hiding the hat with sand, and then
> mounting a 5-15 foot counter poise between balconies.
>
> Thanks in advance,

>
> The Eternal Squire
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.564 / Virus Database: 356 - Release Date: 1/19/04
>
>

1179. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 22:01:27 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bv1ed2$fnom$1@news3.infoave.net>
Source record: 101300
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

Station grounded to central ground (10 foot ground rod in Georgia Clay tied to 60 radials each 60 feet long 1" below the surface put in before the house was built.)

Power unplugged all antennas grounded via the antenna switch.

1/2 of G5RV up 40 feet, antenna vaporized with only bits and pieces found, the other half undamaged. Came in via powerlines and antenna. All electronic devices in the house destroyed

All antennas on 80 foot tower were untouched.

main stroke followed the powerlines in the attic. The overpressure blew vinyl siding off the house.

In the hamshack the voltage exited the coax from a coiled section burning the rug. TS-830 and 440 destroyed in spite of being unplugged. 6 foot color TV, electronic air cleaner, VCR etc all destroyed. The only electronic survivor was a bedside GE $10 radio alarm clock.

This is a rural setting on 29 acres. Closest house 1/2 mile away. All utilities underground from the road to the house. Closest overhead utilities are 1600 feet away.

"Thierry" <To answer me in private use
http://www.astrosurf.com/lombry/post.htm> wrote in message
news:4013ccca$1_2@news.vo.lu...
> Hi,
>
> Was your house/shack stroken by Thor's hammer, I mean a lightning recently
?
> I am interested in your experience...

1180. Balun on various bands

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 22:15:55 UTC
From: Frank MacKenzie-Lamb <maclamb@charter.net>
Message-ID: <1018ifi7hojsd06@corp.supernews.com>
Source record: 101303

Hi Folks,

I am going to try a balun with a 40m dipole. My question is would my Kenwood AT-250 match to other higher frequencies and if so, would it damage the balun or is it just better to go without the balun abd wire direct?

Thanks
NG1I

1181. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 22:50:52 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <1018i2c1saq2led@corp.supernews.com>
Source record: 101302
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Yeh, BUT-- Moby, Michael Jackson, and, Eminem, and Bono, WITHOUT the degree
(and, probably without even a High School deploma)! are Beating your son,
meanwiile,
Former ENRON accountants, are running circles around your daughter! Shall
we sink
ALL STANDARDS? (Got an idea: Lets legalize BANK ROBBERY, as those that
commit it
need the dough for their attorneys-- too many murders? simply legalize them
as an act of
MERCY!! , ect. Why have ANY standards?? Do your own thing! Granney (at
age 56)?
yeh, send her over Niagra Falls? Yeh that the ticket! When you fail to
jump over the bar,
lets just eliminate the BAR!! That (Unfortunatly) is what has been going
on for too many years!
Jim NN7K

"Bob wrote in message news:as5610dhs97aupcrd5f8a2ts2ilj3qp0cf@4ax.com...
> I have very little problem with my manhood. I have a son with a Master
> of Music (Education) that is a respected teacher. He has a lovely wife
> and three wonderful children. I have a daughter with an accounting
> degree that manages a billing department responsible for preparing
> invoices totalling nearly $30M last year. I have another son at Fort
> Brag NC in special forces training, and a third son learning the
> construction business from the ground up. I survived 2 trips to
> Vietnam on a US Navy destroyer. My wife (also a Navy veteran) and I
> are approaching our 31st wedding aniversary. Any of these
> acomplishments are far and away more important than any award or
> recognition available from amateur radio.
>
> My problem, due to a number of hams of all ages I have met both in
> this area and elsewhere, are those that use their ticket, awards,
> contest status or shack as their primary means of identifying who they
> are and how necessary they are to the hobby. Maybe they never learned
> what is important, or just don't have a life. Maybe that's what all
> Ivy Leaguers are like (most of these are from Cornell). But they sure
> seem to be in the majority in this hobby. And it appears that most of
> what the ARRL has done in the past several decades was simply to
> encourage them with more wallpaper to brag about.
>
> Yes, I know there are others out there that are more like you claim to
> be, and without them, this hobby probably would have died out years
> ago. But around here they are few and far between. I know of at least

> two clubs in this area that don't have any. (Actually, one of them did
> have two, but one got called up and sent to Iraq two years ago. Then
> the other got frustrated and left the club.) Neither of those clubs
> does any public service events, offer any classes or do any
> demonstrations or open houses. Their planning for field day sounds
> more like preparation for war, and outsiders are not welcome. They are
> so self centered, that they won't even talk to newcomers until they
> know how they stack up. That means they still won't talk to some of us
> that have intermittantly attended their meetings for over three years.
> I know of three hams that flat refuse to attend their meetings any
> more. One of them sold all of his VHF and UHF gear so he wouldn't even
> have to listen to them on the air. He focuses entirely on HF DX.
>
> I hope conditions are better in your area.
>
> Bob McConnell
> N2SPP
>
> On Fri, 23 Jan 2004 20:13:37 -0500, "W4JLE" <w4jle(remove to
> reply)@pbtcomm.net> wrote:
>
> >I disagree with your premise Bob, I hope that you are not so insecure
with
> >your manhood that you would find the success of others a threat.
> >
> >Many of us older farts strive for excellence, we use various means to
> >measure how we compare to others. Do not confuse pride in accomplishment
> >with ego.
> >
> >In spite of what the feel good types tell you, competition is a basic
human
> >instinct. Keeping score is the way to quantify the competition.
> >
> >To distain the accomplishments of others as "ego" is both supercilious
and
> >lacking in the basic understanding of the human condition.
> >
> >"Bob McConnell" <rmcconne@NOSPAM.lightlink.com> wrote in message
> >news:ofg3109bbbqfdm9ip1r6n8mgnkcamr0ou6@4ax.com...
> >> On Wed, 21 Jan 2004 18:19:04 -0600, Cecil Moore
> >
> >> Unfortunately, there are far too many for whom the value of their
> >> license is measured in how many people it allows them to look down
> >> their noses at. Their only motivation for moving up was so they could
> >> gloat over how much better they are than anyone that isn't up to their
> >> standards. This is also the primary reason that contests and awards
> >> are rubbed in our faces in most of the magazines and newsletters. This
> >> is the crowd the ARRL has been cutivating for years, because they
> >> don't care about advancing the state of the art, or building their own
> >> equipment, helping others, or any of the other aspects of the hobby

> >> that used to make it great. They simply want to buy the newest,
> >> coolest, fanciest or most expensive rig to help them along on their
> >> ego trip, which keeps the advertisers happy.
> >>
> >> Somebody let me know when QST no longer has any contests or award
> >> notices in it. Then I *might* be interested in looking at it again.
> >>
> >> Bob McConnell
> >> N2SPP
> >>
> >
>

1182. Balun on 40M band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 22:59:53 UTC
From: Frank MacKenzie-Lamb <maclamb@charter.net>
Message-ID: <1018ijb1epk73e0@corp.supernews.com>
Source record: 101304

Hi folks,

I've moved to a country area in central MA and will be putting up a 40m diople. Considering using a balun with my AT-250 tuner with mt TS-430.

If the tuner can tune in 20 and 10M, will damage be done to the 1:1 balun?

Thanks
NG1I

1183. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 23:51:36 UTC
From: Jana <jana_w@nospam.jana.com>
Message-ID: <40145687.3BFC25F2@nospam.jana.com>
Source record: 101305

hi donnie,

check out http://www.cebik.com for lots of neat info on antenna

jana

Donnie

> I recently built a two meter j-pole.In the plan,I saw no mention of pvc
> use.Yet,I had to place a piece of pvc between the two uprights to get
> the swr to fall.Is there something I missed?
> Also,I have been thinking about long-wire antennas.Every long-wire I've
> seen has been in an East-to-West direction.How would it work if I divide
> the wire lengths and transform a long-wire into multiple directions?I
> realize most foreign lands are to the East and West,but what about the
> North and South coverage?

1184. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-25 23:56:36 UTC
From: Jana <jana_w@nospam.jana.com>
Message-ID: <401457B3.CA190946@nospam.jana.com>
Source record: 101306

http://www.limarc.org/members.htm

'Doc wrote:

> N2ION,
> How many members in your club? Any of them contribute
> gear? Time? Can you think of a good way to prove to me
> that you are ligitimate, not another scam?
> 'Doc

1185. Re: Balun on various bands

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 01:08:53 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <401468A5.B2B11F1F@cwis.net>
Source record: 101307

Frank,
Using a balun would probably have little or no affect
on how the AT-250 would handle the 40 meter antenna on
other bands. It would affect the 'balanced' to 'unbalanced'
nature of using a dipole with coax, though, and possibly
help reduce any RFI problems (maybe) if any. I'm not a
great balun 'fan', so personally, I'd do with out it...
'Doc

1186. Re: Balun on 40M band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 01:12:04 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40146964.F37069FD@cwis.net>
Source record: 101308

Frank,
Not unless the balun has a very low power/voltage
rating. Shouldn't make any difference if it's the
'usual' balun sold commercially, they normally can
handle the 100 watts (or so) you'd be putting out.
'Doc

1187. Make your own Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 04:10:18 UTC
From: Peter W <peteppp@optushome.com.au>
Message-ID: <40149326$0$29126$afc38c87@news.optusnet.com.au>
Source record: 101309

http://www.dxantennas.com

There is some good info on this site for making baluns.

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.564 / Virus Database: 356 - Release Date: 19/01/2004

1188. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overheating

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 04:16:56 UTC
From: Peter W <peteppp@optushome.com.au>
Message-ID: <401494b4$0$28871$afc38c87@news.optusnet.com.au>
Source record: 101310

I make a 4:1 transformer out of coax and feed the J-pole at a higher
impedance point, this also gives a better match across the whole band.

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0401192213.19ab7a71@posting.google.com...
> radio913@aol.com (Dr. Slick) wrote in message
news:<1d15af91.0401182259.1a6585a1@posting.google.com>...
>
>
> Ok, folks. Went to the local ham radio outlet, and
> the dude said that the polyethelene foam RG-8 isn't very good in terms of
> breakdown voltage, which is about 600 RMS, i believe.
>
> However, RG-213 is solid polyethelene, with a BV of 3700 volts RMS.
>
> So i went with the RG-213, and reduced the total turns to 4
(originally 6).
>
> Hopefully this will not melt again.
>
>
> Slick

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.564 / Virus Database: 356 - Release Date: 19/01/2004

1189. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 04:20:57 UTC
From: Jeff <jeff@rodentiaREMOVETHIS.org>
Message-ID: <jeff-4BB96F.23205725012004@corp.supernews.com>
Source record: 101311

In article <4012c3c1_2@corp.newsgroups.com>,
Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:

> Jeff wrote:
> > I've got a 5" base Comet mag mount that I've attached both a Diamond
> > NR2C (2M 4.1dB center loaded mobile antenna) and a Diamond SG7900 (a
> > huge dualband antenna giving 5.0dB on 2M). Upon testing them on my AC
> > box placement, the SWRs exceed 2.0:1! Nothign I can do seems to improve
> > the SWR with these more efficient antennas.
>
> What does a plot of SWR Vs frequency look like across the band?

With the smaller (3") MFJ magmount, its as follows:

144Mhz 1.8
145Mhz 1.7
146Mhz 1.5
147Mhz 1.1
148Mhz 1.1

Clearly the antenna is not optimally tuned for the 2M amateur bandwidth,
and I could probably get the SWR bell curve down to 146 by lengthening
the antenna. However, 99% of my use is on the high end of the band so
it works just fine. Its a small antenna and I want something with more
gain, thus I've not fiddled with it to improve the SWR.

With the larger 5" mag-mount on the SG7900:

144Mhz >3.0
145Mhz >3.0
146Mhz 2.5
147Mhz 2.5
148Mhz >3.0

SWR profile is similar with both this antenna and the 2M monobander
Diamond NR2C.

73s
Jeff
--
--
J. Rogers KB1HOL
KB1HOLatARRLdotNET

1190. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 04:26:53 UTC
From: Jeff <jeff@rodentiaREMOVETHIS.org>
Message-ID: <jeff-80231F.23265325012004@corp.supernews.com>
Source record: 101312

In article <mq06109u6458jdkpps999vo9bsruvqgjer@4ax.com>,
Gary S. <Idontwantspam@net> wrote:

> For reference, a good ground plane should be a least a radius of 14
> wavelength around the base of the antenna. Two strips of metal at
> right angles works reasonably, and the plane need not be solid, aas
> long as the holes are not too large in relation to the wavelength.
>
> Theoretically speaking, a ground plane for 2M should be a radius of
> 19.25 inches.

The AC box is rectangular and I've got about 19" on two sides, but less
than that in the other two.

My understanding is this ground plane requirement for a magmount doesn't
change much with each magmount? It could be the larger 5" magmount
requires more metal?

> Practically speaking, I have had good results with a magmount 2M on a
> standard cookie sheet, inside the house (single story wood
> construction).

I could do that, but I want to keep the antenna as far away from people
as possible since I'm on 65W simplex frequently.

Long story short, I'm trying to figure out why the metal AC box
functions just fine for a smaller magmount, but not the larger one.

> There is a book called "Stealth Antennas" which may help you.

I'll keep my eye out, though most stealth antennas seem to require
access to space than I can provide.

> Also keep in mind that a vertical antenna can hang down from the feed
> point, as well as going up from there.

Absolutely, though I don't think our neighbor below us would appreciate
the whip hanging in front of his window. :)

73s
Jeff
--
--
J. Rogers KB1HOL
KB1HOLatARRLdotNET

1191. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 04:30:29 UTC
From: Jeff <jeff@rodentiaREMOVETHIS.org>
Message-ID: <jeff-64A5BF.23302925012004@corp.supernews.com>
Source record: 101313

In article <4013394E.52C6DDEA@cwis.net>, 'Doc <w5lz@cwis.net> wrote:

> Jeff,
> Try using the AC as a mounting point for a horizontal
> bar running out far enough to mount an antenna on, such
> as some type of 'base'(?) antenna.

I've tried to figure out a way to do exactly that. I'd love to get a "stand off" far enough away so I could put on a simple quarter wave ground plane, but it'd take a more mechanically clever person than I to engineer such a thing off this AC box. Not only to do that, but to do it so the maintainance guys here don't get upset with a modification to the apartment's property.

> All antennas have to be tuned and/or impedance matched.
> Any antenna near obstructions will have undesirable
> characteristics compared to the same antenna in the 'clear'.
> I think what you're seeing is fairly 'normal' for your
> situation. Good luck...

But the difference between the smaller and larger magmounts is what puzzles me. Shouldn't both mounts give similar SWR readings?
--
--
J. Rogers KB1HOL
KB1HOLatARRLdotNET

1192. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 04:48:53 UTC
From: dplatt@radagast.org
Message-ID: <101971lfqr8n5f0@corp.supernews.com>
Source record: 101314

In article <jeff-64A5BF.23302925012004@corp.supernews.com>,
Jeff <jeff@rodentiaREMOVETHIS.org> wrote:

>But the difference between the smaller and larger magmounts is what
>puzzles me. Shouldn't both mounts give similar SWR readings?

It would be worth checking to see whether the same antenna, on the larger mag-mount, on a larger ground plane gives better results. It's possible that it won't.

Most mag-mount antennas that I have seen, are designed to establish a capacitive coupling with the metal ground plane, so that it'll actually serve as an RF ground. The shield of the coax cable is connected to a portion of the mag-mount base, and this is then capacitively coupled to the car body (or whatever) in one way or another. Some mag-mounts seem to depend on the magnet itself being a good enough conductor to provide the coupling. Others place some sort of thin, conductive metal foil across the bottom of the magnet (sometimes with a protective plastic covering) and then connect this foil to the coax braid somewhere inside the base.

It's possible that the large mag-mount base you're using doesn't have enough coupling capacitance. Possibly, it was designed for use on an HF antenna base, and isn't _intended_ to provide capacitive ground coupling. At HF frequencies, capacitive coupling doesn't work very well for mag-mounts, and the bases are usually designed to be grounded to the car body via a wire or braid.

If your big mag-mount doesn't couple the ground to the air conditioner base well enough, you'd probably end up with an ineffective ground and a high SWR, and possibly one which changes as you move the coax around. The outer portion of the coax braid would be working as a counterpoise... and how well it works would depend on its position, whether it was coiled up, how close it came to other metal objects, etc.

If you want to be independent of the ground plane provided by your air conditioner, you might want to investigate an end-fed half-wave antenna. You can get mag-mountable commercial half-wave antennas which use a matching coil in the base, and you can make (or perhaps buy) a J-pole made out of something like thin brass or aluminum rod. If you have an outdoor balcony with one of those large sliding glass doors, I'll bet you could fabricate an on-the-glass J-pole, or a center-fed vertical, out of adhesive-backed copper or aluminum tape stuck to the glass.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1193. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 06:14:13 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401252214.327869d3@posting.google.com>
Source record: 101315
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

"Thierry" <To answer me in private use http://www.astrosurf.com/lombry/post.htm> wrote in
message news:<4013ccca$1_2@news.vo.lu>...
> Hi,
>
> Was your house/shack stroken by Thor's hammer, I mean a lightning recently ?

My mast has been struck twice in the last 4 years.
> I am interested in your experience...
>
> If your installaiton was damaged by a strike event, I would like to now if :
> - you used a central ground point bonded to an external grounding system, as
> well as the home ground.

My mast is the central ground point. It's tied into to water pipe,
which is about 2 ft away, and also tied into my "ground window"
outside the shack. All the ground here is tied together, and at the
same potential. The water pipe is iron, not pvc.

> - you left some gears switched on during the strike event

Gears???? No compute...

> - you left the TX switched on and the coaxial plugged without protection

Yes. So was my computer and monitor. Neither flinched at all.
> - you installed or not lightning controllers in your electric distribution
> panel

No.
> - you had installed another protection
No.
> - you swicthed off and unplugged all devices
Yes. But to my radios only. IE: rig and amp unplugged from the wall.
Phone line to the computer unplugged. All the other stuff in the
house/room was left on and plugged in.
My computer was on, as was the TV in the room, which is on cable.

> - you think that the energy came back via the grounding network (probably
> dut to a difference of potential in a device)

Most all of the strike energy went straight to ground via the mast I'm
fairly sure.
I had no damage to anything anywhere. The only thing is did was blow a
hole in my electrical tape "water cap" on the top of the mast. Also
made the slightest arc spot on the end of the mast. You would have to
look hard to see it.

>
> Tell me only in a few words what was the most probable cause of the
> accident.

Accident? What accident? The lightning strike did exactly what I was
intending/hoping it would do.
>
> At last, if you master the subject, do you really think that a grounding
> system, as best it could be as the advice provided by PolyPhaser for
> example, will never protect you against a direct strike on your antenna or
> on the house lightning conductor
> Why ?

You can protect from a direct strike. The level of protection will
depend on the clamping voltage of the gas tube, or whatever you use.
The higher power gas tubes clamp at a higher voltage. If you want max
protection use a low power protector. But I'm too paranoid to operate
during lightning. I see no point anyway, being the static would be a
mess... I totally unhook and ground all antennas. Also, my mast is
much most likely to attract a strike rather than my antennas
themselves. They just float along for the ride. My coaxes all run all
the way down to the ground. The mast acts as a lightning rod in my
case. I was sitting 15 feet away from my mast when it struck mine. In
reality, it's kind of a non event..It's so quick , it's over before
you realize what happened. The strike itself is pretty quiet if you
have a low resistance connection like a well grounded mast. About like
throwing a lightbulb on the ground and breaking it. Only the sonic
boom overhead is loud. You also hear a click in your auditory nerves
when you are that close. Lightning has also hit tall trees in our yard
in that time period. The tree in the front yard was nailed a few
months ago. MK

1194. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 07:28:33 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4014C1A1.FA34B138@cwis.net>
Source record: 101316

I counted over 400 members. At $5 per head the club could afford almost any radio on the market. A bake sale (or the activity of your choice) or two would mean even more. The bunch of you should be ashamed of your selves.
'Doc

1195. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 11:17:47 UTC
From: Frank <ztahbulreo@hwvjakuxihqezcaf.com>
Message-ID: <01c3e3fe$0271b2f0$0125250a@hwvjakuxihqezcaf>
Source record: 101317
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

Mark Keith <25eb70d7.0401252214.327869d3@posting.google.com>...

^ > - you left some gears switched on during the strike event
^
^ Gears???? No compute...

"Gear", not "gears". "Gear" is both singular and plural without the
apostrophe but that sense doesn't translate well. He means "equipment".

Frank

1196. Re: Balun on various bands

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 11:55:34 UTC
From: Frank MacKenzie-Lamb <maclamb@charter.net>
Message-ID: <101gjglegsb6mba@corp.supernews.com>
Source record: 101133

Thanks for the advice...I'll just be running 100watts from a TS-430 to a
coaxline fed Model 1:1 balun by W2AU which is sold commercially...
"'Doc" <w5lz@cwis.net> wrote in message news:401468A5.B2B11F1F@cwis.net...
> Frank,
> Using a balun would probably have little or no affect
> on how the AT-250 would handle the 40 meter antenna on
> other bands. It would affect the 'balanced' to 'unbalanced'
> nature of using a dipole with coax, though, and possibly
> help reduce any RFI problems (maybe) if any. I'm not a
> great balun 'fan', so personally, I'd do with out it...
> 'Doc

1197. Need dual band mobile antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 11:58:53 UTC
From: aokd5fxt@aol.com
Message-ID: <20040126065853.22671.00000708@mb-m18.aol.com>
Source record: 101318

I need a dual band mobile antenna capable of handling 50 watts. Preferably a mag mount type. Pls email me with what you might have.
Thanks
Bill, kd5fxt

1198. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 13:05:02 UTC
From: richardharrison@webtv.net
Message-ID: <24171-4015107E-191@storefull-3257.bay.webtv.net>
Source record: 101369

Dave Platt wrote:
"Others place some sort of thin, conductive metal foil across the bottom of the magnet."

Skin effect confines r-f to conductor surfaces. It is difficult to get common-mode current through spaces as tiny as glue and paint thicknesses on either side of the metal foil at the bottom of a mag-mount.. Polarity of propagation at any instant is the same on all surfaces involved. The little electrons avoid each other as much as possible on all surfaces. Also, any current generates counter-emf which in a combination of such surfaces tends to strongly oppose current, just as flowing into the depths of aluminum or copper is opposed at r-f.

Dave also wrote:
"If you want to be independent of the ground plane provided by your air conditioner, you might want to investigate an end-fed half-wave antenna."

An end-fed antenna, regardless of its length, requires a ground or something else to provide the second connection for the antenna.

A balanced antenna such as a dipole or loop is the only system independent of the ground plane.

Best regards, Richard Harrison, KB5WZI

1199. Re: Balun on 40M band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 14:38:31 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4013cf77_1@newsfeed.slurp.net>
Source record: 101370

Why are you building a new dipole with a balun in it, before you even know if you need a balun? Try building the dipole with a "normal" center support (Budwig, etc.) and put it on the air. If you see no problems, you're done. Save the balun until you know it can be inserted to alleviate a problem, rather than taking thechance on the balun BEING the problem...

73,
Mike KI6PR
El Rancho R.F., CA

"Frank MacKenzie-Lamb" wrote > Hi folks,
>
> I've moved to a country area in central MA and will be putting up a 40m
> diople. Considering using a balun with my AT-250 tuner with mt TS-430.
>
> If the tuner can tune in 20 and 10M, will damage be done to the 1:1 balun?
>
> Thanks
> NG1I
>
>

1200. Re: Balun on various bands

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 14:39:53 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4013cfbc_4@newsfeed.slurp.net>
Source record: 101371

See my response to your other note

"Frank MacKenzie-Lamb" wrote
> Hi Folks,
>
> I am going to try a balun with a 40m dipole. My question is would my
Kenwood
> AT-250 match to other higher frequencies and if so, would it damage the
> balun or is it just better to go without the balun abd wire direct?
>
> Thanks
> NG1I
>
>

1201. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 15:11:06 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <m3fze2lp85.fsf@qmc.ph.msstate.edu>
Source record: 101372

>Richard,
> I would think that would depend on what you can find
>available,
>PVC, plexiglas, 'Delrin', who knows what else. I've used a
>multi-
>layer thingy of plexiglas glued together before, seemed to work
>okay. So the question is 'what can you find?'.
> 'Doc

I use the plastic from kitchen cutting boards for such parts. Strong and
easily available.

Torsten
N4OGW

1202. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 15:28:11 UTC
From: richardharrison@webtv.net
Message-ID: <25140-4015320B-199@storefull-3258.bay.webtv.net>
Source record: 101374

Thierry wrote:
"I am interested in your experience."

My electric utility company`s service standards book says:

"National Electrical Code (N.E.C.) requires grounding to a "metallic underground water piping system" if available. Acceptable alternatives include a driven ground rod which is preferred by your company regardless of the type of grounding used. N.E.C. requires that the "interior metallic cold water piping system" be bonded to it."

My home installation has metallic water piping inside and outside the house. A heavy cable connects cold water pipimg to the electrical service entrance and to an external ground rod.

Telephone and TV cables are bonded to the electrical service ground. This is done to lessen the possibility of a potential difference between the various services.

Nevertheless, I had a combination clock radio telephone which was burnt by a lightning strike. Enough potential difference was generated between the phone wiring and powerline wiring inside the house to fry the clock radio telephone which was at the opposite end of the house from the service entrance where services share a common ground point. It is a wood frame house.

There was no protection at the clock radio telephone. Had low-pass filters with voltage-limiting on electrical and telephone outlets been installed and had they shared a common ground connection at the apparatus, it is likely no damage would have occurred. I`ve used MOV`s for power line surge protection with success against common-mode and differential-mode surges. Carbons and gas tubes are suitable for phone lines.

I worked many years in broadcast stations, medium wave and short wave. Never saw a dime`s worth of lightning damage in the well protected stations in which I worked.

I worked more decades with land/mobile and microwave radios and found ways to protect these too, mostly by using the same techniques already perfected in broadcasting. No. We did not use 120 radials for our VHF, UHF, and microwave towers, but we did use a separate ground rod en each tower leg. This was lightning protection. We also used closed circuit antennas grounded at the tops of the towers. Coax rejects common-mode lightning energy. We used zero protection across coax and never had a burnt transistor receiver front-end.

Best regards, Richard Harrison, KB5WZi

1203. Re: Shootout Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 15:33:29 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <101acqg7k1u0icf@corp.supernews.com>
Source record: 101373

Hi
I want to know what Bugcatcher/Screwdriver means? It sounds like it might
be a Screwdriver with Bugcatcher loading coil or they're one and the same/
Do you hve anymore info?
tnx
hank wd5jfr
"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401404fb$1_6@corp.newsgroups.com...
> Someone asked me to post the following summary of three
> California 75m Mobile Shootouts:
>
> Bugcatcher/Screwdriver with top hat 0 dB reference
>
> Bugcatcher/Screwdriver, no top hat -3 dB, -50%
>
> Hustler -7 dB, -80%
>
> Outbacker -9 dB, -88%
>
> Hamstick -12 dB, -94%
>
> Whip with autotuner -14 dB, -96%
>
> Considering that the top legal 75m mobile antennas are
> only 5%-10% efficient to begin with, a Hamstick radiates
> ~0.6 watts in the far field with 100 watts input. 75m
> Hamstick users must really enjoy QRP. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1204. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 15:45:01 UTC
From: richardharrison@webtv.net
Message-ID: <25140-401535FD-203@storefull-3258.bay.webtv.net>
Source record: 101375

R. Torsten Clay wrote
"I use the plastic from kitchen cutting boards for such parts."

Sounds like a good suggestion. Haven`t read all the postings, but many plastics are deteriorated by sunlight. It might be well to use something resistant to sunlight and whatever chemicals may be in the air at your site.

Best regards, Richard Harrison, KB5WZI

1205. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 16:12:08 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <s%aRb.8$gl2.3@lakeread05>
Source record: 101376

"Richard Harrison" <richardharrison@webtv.net> wrote
> Coax rejects common-mode
> lightning energy. We used zero protection across coax and never had a
> burnt transistor receiver front-end.

Richard, could you please explain the term "common mode lightning"? I've seen you reference that many times and meant to ask what that is. Apparently an uncommon mode burned through 300' of RG8 (literally melting the end connected at the radio) and disintegrated the internal coax post inside a Drake R8B.

I sent the radio to Drake, and they explained that the lightning protection inside the radio was literally exploded, but it did it's job and the radio was easily and inexpensively repaired.

The coax in question was disconnected about 150' from the house, but lightning apparently jumped from the tower feed across a foot of air space and back into the PVC pipe channel housing several coax, which led to the house. The Drake was the luckiest of the second-story ungrounded shack gear. The protecton on this particular installation was multiple radial-grounds from the base of the tower. It was a very nasty strike or set of strikes, as several outbuildings on the property all suffered equipment damage. _Maybe_ this was a case of ground current from the strike jumping into the coax, but in any case several coax carried very high charges into the home.

Jack

1206. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 16:26:51 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <bv3f4e$15fm$1@f04n12.cac.psu.edu>
Source record: 101377

That's true but sometime we use current baluns in 50 ohm systems and one should be aware of what happens to the Z when the line in the balun is some random impedance.
I've done some tests on various types of baluns looking at balanced to unbalanced conversion verses frequency and losses and I like 3 to 4" diameter toroids with a mu of 100 to 200 wound with Teflon coax. Most of my antennas are close to 50 ohm and I don't need any unwanted impedance transformations.

--
John Passaneau W3JXP
State College Pa
jxp16@psu.edu
This mail is a natural product. The slight variations in spelling and grammar enhance its individual character and beauty and in no way are to be considered flaws or defects.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:burm4u$4s2$1@hercules.btinternet.com...
> When connecting a 50-ohm circuit to a 600-ohm line via a choke balun it
> makes no difference what the impedance of the short length of line forming
> the choke might be.
>
> For practical purposes the severe mismatch is due entirely to the difference
> between 50 and 600 ohms.
>
> One must avoid suffering from delusions of accuracy.
> ---
> Reg
>
>

1207. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 16:31:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401541b3$1_8@corp.newsgroups.com>
Source record: 101378

Jeff wrote:
> But the difference between the smaller and larger magmounts is what
> puzzles me. Shouldn't both mounts give similar SWR readings?

A thought - mag mounts are designed to work on a painted surface
through capacitive coupling. If your metal box is unpainted metal,
you might be getting a DC path through one mag mount and not the
other.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1208. Re: Shootout Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 16:40:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4015439f_8@corp.newsgroups.com>
Source record: 101379

Henry Kolesnik wrote:
> I want to know what Bugcatcher/Screwdriver means? It sounds like it might
> be a Screwdriver with Bugcatcher loading coil or they're one and the same/
> Do you hve anymore info?

Top of the line screwdrivers and bugcatchers are neck-and-neck in
the latest shootouts and can essentially be lumped together. A
screwdriver mounted on a Hustler bottom section and with a good
top hat is a top performer. There's not enough difference between
bugcatchers and screwdrivers to mention.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1209. Re: Advice Needed for Super J-Pole Design: Inductive Loops Overhea...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 16:41:23 UTC
From: richardharrison@webtv.net
Message-ID: <25140-40154333-211@storefull-3258.bay.webtv.net>
Source record: 101380

Dr. Slick wrote:
"Can I get away without using the tnductive loops?"

A similar "Super-J" is shown in the 19th edition of the "ARRL Antenna Book" on page 16-25. I see no mention of decoupling the outside of the coax.

Exterior coiling and exterior coupling of the coax should hardly affect the interior of the coax.

W2DU ferrite cores could be used for the same purpose as coils in the coax as could other decouplers such as sleeves, etc.

Melted foam inside the coax might indicate a near short nearby.

Load on the coax should be a resistance of Zo value and if so, there should be no high-current hot spot.

Best regards, Richard Harrison, KB5WZI

1210. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 17:21:49 UTC
From: richardharrison@webtv.net
Message-ID: <25140-40154CAD-222@storefull-3258.bay.webtv.net>
Source record: 101382

Jack Painter wrote:
"---explain the term "Common mode lightning"."

A folded monopole or another antenna with a 1/4-wave short-circuited stub across its drivepoint is a low impedance except at resonance. At other frequencies containing most of the lightning energy, the exposed antenna is a short to the grounded tower. At the resonant frequency, the same voltage with the same polarity is imposed on both the center conductor and the inside of the coax shield.

Inside the coax, currents in one conductor induce opposing and near equal currents in each other, cancelling. It worked for me in hundreds of locations over decades of time including countless lightning strikes to what was often the most exposed and salient structure for miles around.

Best regards, Richard Harrison, KB5WZI

1211. Re: Shootout Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 17:28:17 UTC
From: "paulfriedman@comcast.net" <p.paulfriedman@comcast.net>
Message-ID: <R6cRb.27324$U%5.180682@attbi_s03>
Source record: 101381

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4015439f_8@corp.newsgroups.com...
> Henry Kolesnik wrote:
> > I want to know what Bugcatcher/Screwdriver means? It sounds like it
might
> > be a Screwdriver with Bugcatcher loading coil or they're one and the
same/
> > Do you hve anymore info?
>
> Top of the line screwdrivers and bugcatchers are neck-and-neck in
> the latest shootouts and can essentially be lumped together. A
> screwdriver mounted on a Hustler bottom section and with a good
> top hat is a top performer. There's not enough difference between
> bugcatchers and screwdrivers to mention.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

Cecil:

I know the shootout is for 75m but am curious if the group has ever done
anything similar for some of the higher bands.

73

Paul AB0SI

1212. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 19:14:21 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <iGdRb.17$gl2.15@lakeread05>
Source record: 101383

Thanks Richard, I remember your explanation about a dipole being no attractor of anything except it's resonant freq. But I guess the the currents in the coax weren't "near enough equal" in this one case. Kind of defines lightning as it's own anomoly when it wants to be, huh.

Jack

Richard Harrison wrote
> Inside the coax, currents in one conductor induce opposing and near
> equal currents in each other, cancelling.

1213. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 19:29:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c8qa10hi0ge06ino6cl3ir7ud4r9ori9ch@4ax.com>
Source record: 101384

On Mon, 26 Jan 2004 14:14:21 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

> But I guess the the
>currents in the coax weren't "near enough equal" in this one case.

This is the definition of Common Mode.

>Kind of
>defines lightning as it's own anomoly when it wants to be, huh.

It means you lacked the Common Mode protection. Your earlier posting
of:

>>The coax in question was disconnected about 150' from the house, but
>>lightning apparently jumped from the tower feed across a foot of air space
>>and back into the PVC pipe channel housing several coax, which led to the
>>house. The Drake was the luckiest of the second-story ungrounded shack gear.

screams this big time. There was nothing anomalous about that
lightning strike, it did what it was enabled to do.

73's
Richard Clark, KB7QHC

1214. Re: upside down vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 20:05:25 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv3s1e$nf9$1@newshost.mot.com>
Source record: 101385

Sumptin's wrong wi dis picture, Sir Squire.

If the capacity hat is at the bottom, what will then be at the top? The counterpoise??

What were you intending to put at the bottom of the "non-inverted" version? Radials, or just a ground rod?

Is the intended design a ground-plane type vertical (1/4 wave -or rather a shortened 1/4 wave), or a di-pole (1/2 wave or rather a shortened 1/2 wave - center or end fed) type?

It would seem to me that the bird house could be a pretty good "capacity hat" as it would have quite a bit of capacitance to the universe, being a pretty good volume of conductive material (since you would make sure it is conductive, that is). Also, I can easily see a "squirrel baffle" right below the bird house which, being made of metal, makes a pretty good addition to the "Bird hat".

..Now, the question is, how much de-tuning will the bigger birds have ??.... Stand-by fellas. I have to go out and chase the owl off my antenna to get the antenna tuned back to the top of the band.

--
Steve N, K,9;d, c. i My email has no u's.

"The Eternal Squire" <eternalsquire@comcast.net> wrote in message news:waGdnbpDDq3IV4_d4p2dnA@comcast.com...
> Hi all,
>
> My wife wants to put up a birdfeeder and I want to put up a hidden antenna.
> [...snip...]
>
> My intention is to put the birdfeeder on a dowel rod which I have wound with
> #30 white wire and spraypainted with white paint. The dowel rod would be
> 15-20 feet tall, so a helical for 10-80 meters might make a lot of sense.
>
> Here's the big question: how badly would it hurt the helical's performance
> to install it "upside down"? ....
> The Eternal Squire

1215. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 20:14:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv3shs$o8e$1@newshost.mot.com>
Source record: 101386

Jimmy,

What did you call it to get the beer?

--
Steve N, K,9;d, c. i My email has no u's.

"Jimmy" <Gfender@carolina.rr.com> wrote in message
news:CczQb.9545$YG.561855@twister.southeast.rr.com...
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:jhs010dr7r4ocnhujh5jiet3iti84e9rk6@4ax.com...
> > On Tue, 20 Jan 2004 20:19:39 GMT, "Jimmy" <Gfender@carolina.rr.com>
> > wrote:
> >
> > >Is an antenna that is resonant on 10 meters still a 1/4 wavelength
> > > antenna if it is physically only 4ft long

> For what it is worth I got the beer.
>
>

1216. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 20:23:10 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv3t2r$p2e$1@newshost.mot.com>
Source record: 101387

Looks like they just have "built-in" gin or or is jin pole capability.
Seems like you could do the same thing with a triangular section tower.
Looks neat, though. Pretty husky too...however...

I wonder about the fact that there is no diagonal bracing. The horiz
bracing is quite heavy looking, but it looks like one giant parallelogram to
me. What would 'ole Octave Chanute say?

--
Steve N, K,9;d, c. i My email has no u's.

"Minnie Bannister" <GoonButNotForgotten@myob.net> wrote in message
news:10168un9ulibh80@corp.supernews.com...
> Anybody know anything about this one?
>
> http://www.onemantowers.com/index.html
>
> Alan AB2OS

1217. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 20:35:41 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv3tq6$q3m$1@newshost.mot.com>
Source record: 101388

Donnie,

The "open end" of the matching section of the J antenna (commonly called a "J-Pole"), as you have found, does have a large effect on the characteristics. The spacing of the two parallel lines or pipes changes the match. I think that to the first approximation, this is an acceptable way to adjust the match. The only problem I can foresee is that the top of the shorter line/pipe is at a high impedance point and any changes there would cause changes---such as dirt build up over time or deterioration of the PVC. I would tend to put it a little ways down from the top to head off such concerns. I recent built a J antenna for 1296 MHz and used a small piece of plastic in this location for tuning it.

--
Steve N, K,9;d, c. i My email has no u's.

"Donnie B" <Nova_Man73@webtv.net> wrote in message
news:1571-4013236D-220@storefull-3278.bay.webtv.net...
> I recently built a two meter j-pole.In the plan, I saw no mention of pvc
> use.Yet, I had to place a piece of pvc between the two uprights to get
> the swr to fall.Is there something I missed?
...

1218. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 21:02:38 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <OffRb.30$gl2.5@lakeread05>
Source record: 101389

"Richard Clark" wrote

> It means you lacked the Common Mode protection. Your earlier posting
> of:
>
> >>The coax in question was disconnected about 150' from the house, but
> >>lightning apparently jumped from the tower feed across a foot of air
space
> >>and back into the PVC pipe channel housing several coax, which led to
the
> >>house. The Drake was the luckiest of the second-story ungrounded shack
gear.
>
> screams this big time. There was nothing anomalous about that
> lightning strike, it did what it was enabled to do.

Richard, do you mean that if the coax had been left connected to the dipole it would have afforded common-mode protection? I think I understand what you're saying but would appreciate you tying that principle together. Thanks.

Jack

1219. Midland 18405 2m antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 21:57:28 UTC
From: "M.D." <ve3tmt@yahoo.ca>
Message-ID: <v3gRb.34679$Kg6.245559@news20.bellglobal.com>
Source record: 101391

Recently picked one of these up in great shape but no assembly instructions.
Does anyone have a copy they can scan and e-mail me. Fax also available.

Thanks,
Max

Please reply direct ve3tmt@yahoo.ca

1220. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 22:02:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8e1b10lpqacil981601febalsruuj5heab@4ax.com>
Source record: 101390

On Mon, 26 Jan 2004 16:02:38 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>
>Richard, do you mean that if the coax had been left connected to the dipole
>it would have afforded common-mode protection? I think I understand what
>you're saying but would appreciate you tying that principle together.
>Thanks.
>
>Jack

Hi Jack,

Ask yourself "Where is ground in this picture?"

THAT is the Common of the Common Mode. I see it discussed nowhere in
your description. There is the inference of it being back in the
house (code requires it) where lightning eventually found it, the hard
way.

As you describe it:
>The coax in question was disconnected about 150' from the house,
disconnected where, how? Up the tower? At the bottom of the tower?
Is the tower grounded? Does the tower ground meet code in being tied
to the house ground? Is the coax grounded? Where? Does it supply
ground? Where?

>The Drake was the luckiest of the second-story ungrounded shack gear.
No ground? There are two problems with this statement.
1.) It is unlikely due to code;
2.) It means you accept Common Mode problems.

It being unlikely does not mean you are protected (experience proves
this), it means you went with the flow - of several KV.

73's
Richard Clark, KB7QHC

1221. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 22:45:11 UTC
From: Donnie <"look me up"@qrz.com>
Message-ID: <0q5b10l3atomle9s3p6sccdl43gvtv4vo3@4ax.com>
Source record: 101392

On Mon, 26 Jan 2004 01:28:33 -0600, 'Doc <w5lz@cwis.net> wrote:

>
>
> I counted over 400 members. At $5 per head the club
>could afford almost any radio on the market. A bake
>sale (or the activity of your choice) or two would mean
>even more. The bunch of you should be ashamed of your
>selves.
> 'Doc

Doc,
This guy has no shame, every month he spams the newgroups with this thread.
I concur shame on Jeff and the whole bunch of them on Long Island...
Youse guys need to get a life not that many needs for surplus equipment.

Donnie (N4JZH)

''Behold how good and well brethren dwell together in unity''

1222. Re: CB Radio Snake Oil Antenna (laugh)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 22:53:00 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv45rk$8k9$1@newshost.mot.com>
Source record: 101394

Hey! Post that link again. I want to send it around. It's really cool in a stupid sort of way. Makes you feel good about yourself knowing that there will always be people stupider that you.

Steve

1223. Aluminum rod for yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 23:08:14 UTC
From: rein0zn@ix.netcom.com
Message-ID: <74dae202.0401261508.706e06aa@posting.google.com>
Source record: 101393

Hi All,

Could anybody tell me where I can buy Aluminum rod 1/8", 3/16", 1/4"
in 6 or 8 ft length for homebrew yagis in the US?
Years ago, one could buy this in hardware stores, all over.

73 Rein W6/PA0ZN

1224. Re: Balun on 40M band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 23:10:41 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv46st$a63$1@newshost.mot.com>
Source record: 101397

Dipoles at even multiples of the main frequency have a problem. The two bands you mention should be the most difficult to tune with the tuner - regardless of the balun question. These two bands put the feedpoint at/near a high impedance feed point on the antenna. On 20 you have two half waves, one on each side and on 10 you have two full waves. If you do match it, the balun has to be able to handle the voltage. 10 being so wide, some part of the band may be a better Z for the tuner to handle.
My guess is that the tuner (not) matching these bands will be a bigger problem than balun survivability. It has to handle an impedance "at the outer edge" of the Smith chart, so to speak. It may do it for certain feedline lengths, but not others. I don't know enough about the capability of these tuners to be more specific 0 except that the few I have seen specs on specify the Z range over which they can match, so if the Z at the tuner is outside that range...tilt.

The 40M 1/2 wave dipole (or inverted V) will work fine on 30, 17 & 15 and probably 12 & 60 where the tuner shouldn't have to strain too much, so to speak. I've used my 40 M Inverted-V with my MFJ tuner on all these but 60 (and of course 20 & 10). I even managed to load it on 75 with my MFJ tuner & work the east coast, but that's not a good thing. Just wanted to try.

--
Steve N, K,9;d, c. i My email has no u's.

"Frank MacKenzie-Lamb" <maclamb@charter.net> wrote in message news:1018ijb1epk73e0@corp.supernews.com...
> Hi folks,
>
> I've moved to a country area in central MA and will be putting up a 40m
> diople. Considering using a balun with my AT-250 tuner with mt TS-430.
> If the tuner can tune in 20 and 10M, will damage be done to the 1:1 balun?
> Thanks
> NG1I

1225. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 23:16:42 UTC
From: richardharrison@webtv.net
Message-ID: <25140-40159FDA-280@storefull-3258.bay.webtv.net>
Source record: 101395

Jack Painter wrote:
"But I guess the currents in the coax weren`t "near enough equal" in this case."

Yes, and I can`t guarantee common-mode or equal currents. If the folded unipole gets zapped, equal or non-equal currents may flow in both conductors. Induced currents are likely to be differential-mode. But if they are differential-mode currents, something else likely happens. The line flashes over.

I seem to be very lucky to never have damage with so many opportunities for damage. We never lost a transistor radio front end with countless strikes as evidenced by the pitted antennas. We know the coax arcs in broadcast stations. Most stations have automatic circuits to kill the transmitter when the coax arcs.

In medium wave broadcast stations there is almost always a Faraday screen to keep down the harmonic radiation. It gets countless zaps as evidenced by pock marks and metal splattered about its shield box.Even so, the coax gets arcs. When you are on the air, transmitter energy keeps the arc alive once a transient has struck the arc. Most transmitters are equipped with a momentary kill relay whose d-c coil circuit is completed by the coax arc. As soon as the transmitter is killed, the relay is de-energized and the transmitter returns to the air.

In the 2-way radio world, the transmitter is going to drop out in a moment when the mike button is released, or the station was in the receive mode when the lightning hit and there is no energy to sustain the arc.

The arc prevents conveyance of the energy to the radio. I never saw a broadcast transmitter with evidence of lightning inside the transmitter and we have a good ides that these stations get struck almost every time a dark cloud passes by.

Best regards, Richard Harrison, KB5WZI

1226. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 23:28:15 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <4015A299.5000604@get.lost>
Source record: 101396

Cecil Moore wrote:

> Same for ordinary citizens with concealed handgun permits.
> The violent crime rate has nose-dived in the USA while
> sky-rocketing in Australia, Canada, and the UK.

Got data or just rehashing AM talk shows? Somehow I don't recall anything sky-rocketing in Canada, let alone violent crime, but then again, I've been away for five years - is anyone still alive there? As for the US, the crime rate cycle closely follows the economy.

73 ... WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

1227. Re: Aluminum rod for yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 23:30:23 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <dl8b10hregfen71qd534efcej07oph132j@4ax.com>
Source record: 101398

On 26 Jan 2004 15:08:14 -0800, rein0zn@ix.netcom.com (W6/PA0ZN) wrote:

>Hi All,
>
>Could anybody tell me where I can buy Aluminum rod 1/8", 3/16", 1/4"
>in 6 or 8 ft length for homebrew yagis in the US?
>Years ago, one could buy this in hardware stores, all over.
>
One source would be McMaster-Carr, www.mcmaster.com

Some ham radio sources as well.

Industrial suppliers tend to have large minimum orders.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1228. ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-26 23:46:10 UTC
From: Nelson <tstevens@cogeco.ca>
Message-ID: <NLhRb.176$_62.87@read1.cgocable.net>
Source record: 101399

Is there such a thing, some guy in El Gorah, Egypt a Yank no less tried to sell my friend a copy of this, ok so him and I were a little game, we bought the thing from him, guess its seems to be all the right answers for the Advanced test, so my question is now how many of these things are there out there, and how guys are for real, not some two bit cow-boy that knows nothing about nothing. What happens when we need those guys in a emergency and they don't know crap!!.

Guys if you know of other cheat sheets out there, please send them this way, I will do my level best to get them out.

Nelson Stevens

1229. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 00:13:10 UTC
From: Topaz305RK <2smoore@nemontel.net>
Message-ID: <P5SdnWn45qiQMljd4p2dnA@vnet-inc.com>
Source record: 101400

```
1 2 3 4 5 6 7 8 9 10
/
/
/
/
/
/
/
/
/
/
TROLL - O - METER
```

1230. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 00:15:47 UTC
From: Nixo Villie <nixo_villie@hotmail.com>
Message-ID: <d7iRb.56$L_4.12@okepread01>
Source record: 101401

"Nelson" <tstevens@cogeco.ca> wrote in message
news:NLhRb.176$_62.87@read1.cgocable.net...
****snip****
: Guys if you know of other cheat sheets out there, please send them
this way,
: I will do my level best to get them out.
:

http://www.arrl.org/arrlvec/pools.html

I hope you didn't pay *too* much!

73

--
Nixo

nixo_villie@hotmail.com

1231. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 00:40:07 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <bv4c16qsu1@news.oregonstate.edu>
Source record: 101402

Nelson <tstevens@cogeco.ca> wrote:
> Is there such a thing, some guy in El Gorah, Egypt a Yank no less tried to
> sell my friend a copy of this, ok so him and I were a little game, we
> bought the thing from him, guess its seems to be all the right answers
> for the Advanced test, so my question is now how many of these things are
> there out there, and how guys are for real, not some two bit cow-boy that
> knows nothing about nothing. What happens when we need those guys in a
> emergency and they don't know crap!!.

It seems that anyone who actually _purchases_ copies of the answers clearly hasn't spent even 5 minutes studying the real material (enough time to learn that all the answers are freely available) and therefore deserves to fail by default? :-)

I think it's safe to say that most government-conducted exams have publically available question and answer pools...

As far as what happens when we 'need those guys in an emergency' -- given that amateurs are volunteers when it comes to providing emergency communication services, I think it's safe to say, 'you get what you pay before?' There's no guarantee, but clearly amateurs have typically shown very high levels of competency and one can point to many examples where their assistance was tremendously appreciated. Keep in mind that, in the U.S., the same is also true of many rural fire departments -- 100% volunteers! Something along the lines of, 'if you're not interested in doing the job well, you probably won't sign up for it in the first place, given that the most compensation you'll receive is a pat on the back...'

---Joel Kolstad

1232. Re: Question on antenna symantics

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 01:10:52 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <wUiRb.18207$YG.1175176@twister.southeast.rr.com>
Source record: 101403

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:bv3shs$o8e$1@newshost.mot.com...
> Jimmy,
>
> What did you call it to get the beer?
>
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>
> "Jimmy" <Gfender@carolina.rr.com> wrote in message
> news:CczQb.9545$YG.561855@twister.southeast.rr.com...
> >
> > "Richard Clark" <kb7qhc@comcast.net> wrote in message
> > news:jhs010dr7r4ocnhujh5jiet3iti84e9rk6@4ax.com...
> > > On Tue, 20 Jan 2004 20:19:39 GMT, "Jimmy" <Gfender@carolina.rr.com>
> > > wrote:
> > >
> > > >Is an antenna that is resonant on 10 meters still a 1/4 wavelength
> > > > antenna if it is physically only 4ft long
>
> > For what it is worth I got the beer.
> >
> >
>
> We agreed that it should be identified by its physical length

1233. Re: Aluminum rod for yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 01:24:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4015be78$1_8@corp.newsgroups.com>
Source record: 101406

W6/PA0ZN wrote:
> Could anybody tell me where I can buy Aluminum rod 1/8", 3/16", 1/4"
> in 6 or 8 ft length for homebrew yagis in the US?
> Years ago, one could buy this in hardware stores, all over.

http://www.texastowers.com
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1234. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 01:29:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4015bfdc_8@corp.newsgroups.com>
Source record: 101407

Zoran Brlecic wrote:
> Got data or just rehashing AM talk shows?

Latest stats reported by "First Freedom" magazine.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1235. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 01:32:14 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4015c05c$1_8@corp.newsgroups.com>
Source record: 101408

Nelson wrote:
> Guys if you know of other cheat sheets out there, please send them this way,
> I will do my level best to get them out.

Good luck! The Q&A "cheat" sheets are published on the ARRL web page.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1236. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 01:34:14 UTC
From: dplatt@radagast.org
Message-ID: <101bg0mjeq8tm38@corp.supernews.com>
Source record: 101409

>Is there such a thing, some guy in El Gorah, Egypt a Yank no less tried to
>sell my friend a copy of this, ok so him and I were a little game, we bought
>the thing from him, guess its seems to be all the right answers for the
>Advanced test,

Ummm... the correct answers for every question in each of the licensing exam pools are posted on the ARRL web site. For example, see http://www.arrl.org/arrlvec/tech2003.txt to view the complete question pool for the Technician exam - you'll find the correct answer for each question listed with the question's number.

The actual exams consist of a certain number of questions drawn from each subelement of the question pools. A whole bunch of different exams are prepared in advance. Certainly, the correct numerical answer for each coded exam ought not to be available... the specific set of questions drawn from the pool for each of the exam sheets is supposed to be kept confidential by the VECs.

If the "cheat sheet" to which you are referring is simply the list of questions, each question's four choices, and an indication of which choice is correct, then this is (and by current intent is _supposed_ to be) public knowledge. That's how the FCC has set things up for quite a few years. No need to pay anyone for it - it's freely available from the ARRL, from the FCC, and probably from numerous other sites.

> so my question is now how many of these things are there out
>there, and how guys are for real, not some two bit cow-boy that knows
>nothing about nothing. What happens when we need those guys in a emergency
>and they don't know crap!!.

A fair number of people get their Tech license by going to a one-day "cram course", memorizing the answers to all of the questions, and then taking and passing the exam.

Those among them who are wise, will realize that they don't really know much if anything more than they did when they started, and will treat this as the _beginning_ of their study and learning experience rather than the end of it. These are among the amateurs who you'll be able to count upon in an emergency.

Some of the others may very well be useless under those conditions.

However, even those who truly study the material _before_ they take and pass the exam, will almost certainly need (or at least benefit by) additional study and experience if they are to be of real use in a communications emergency. Passing traffic, working effectively in

open and directed nets, working with government agencies, etc. are
topics which the FCC exams barely touch upon. I've learned a lot more
about these things by spending time on my local ARES/RACES nets, and
taking the basic ARRL Emergency Communications course, than I ever did
in studying for my ticket.

>Guys if you know of other cheat sheets out there, please send them this way,
>I will do my level best to get them out.

My guess is that you'll have no luck at all attempting this.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1237. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 02:00:02 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <4015C62B.1010502@get.lost>
Source record: 101410

Cecil Moore wrote:

>> Got data or just rehashing AM talk shows?
>
> Latest stats reported by "First Freedom" magazine.

Care to share? Not that I'm against carrying concealed and blasting the
criminals away, mind you. It's just that these type of claims have
regularly fallen under the urban legend category, i.e. fantasy.

73 ... WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

1238. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 02:07:24 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <xJjRb.627$gl2.206@lakeread05>
Source record: 101411

Richard, my earlier posts described the grounding my friend, here is quick summary:

1.Well grounded 100' tower, hundreds of feet of many radials, rods, etc. Survived many strikes.
2. Feedline from tower's dipole was disconnected about 20' from tower where it enters a buried pvc conduit that travels 150' to house, then up to second story shack. Where nothing is grounded, except by virtue of house AC wiring - a bad I know (not mine either).
3. Ground current from the tower strike most likely entered the coax feedlines at the disconnect point as they entered the pvc conduit then traveled on into house.
4. House current also took huge jolts, zorching all kinds of connected equipment, phones, tv's etc.
5. Outbuilding with radio equipment connected took huge hit, ball lightning inside room fried test cords connected to nothing, hanging on test bench, where the leads touched tile floor, huge blow-out of tile. AC power blew wall warts across room, computers next to each other had .22 rifle bullet sized hole between them. Equipment in this bldg was grounded, and some that was was damaged, others not touched. In short, a massive, multiple strike-path hit that may not be protectable from - but I realize there was a lot missing from a good ground picture here also.

Jack

"Richard Clark" <kb7qhc@comcast.net> wrote
> Ask yourself "Where is ground in this picture?"
>
> THAT is the Common of the Common Mode. I see it discussed nowhere in
> your description. There is the inference of it being back in the
> house (code requires it) where lightning eventually found it, the hard
> way.
>
> As you describe it:
> >The coax in question was disconnected about 150' from the house,
> disconnected where, how? Up the tower? At the bottom of the tower?
> Is the tower grounded? Does the tower ground meet code in being tied
> to the house ground? Is the coax grounded? Where? Does it supply
> ground? Where?
>
> >The Drake was the luckiest of the second-story ungrounded shack gear.
> No ground? There are two problems with this statement.
> 1.) It is unlikely due to code;
> 2.) It means you accept Common Mode problems.
>

> It being unlikely does not mean you are protected (experience proves
> this), it means you went with the flow - of several KV.
>
> 73's
> Richard Clark, KB7QHC

1239. Re: Balun on 40M band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 02:08:49 UTC
From: JR <JR@nospam.com>
Message-ID: <gqhb10h82ujeir1upqa5it51topo9r75k4@4ax.com>
Source record: 101412

Or make an off center fed dipole w/ 4:1 balun, which cover some
bands better with a tuner.. ala what radioworks does with
carolina windom. I did work the E44 on 75M using an off center
fed 40M dipole several years back.

I am in leominster, we have tons of people using these locally
and we also have folks having good luck with 160M loops, feeding
it with a 4:1 balun 8-10 feet off a corner. I have not modeled it but
seems pretty good on multiple bands around 20 feet up.

fyi
Jerry AA2T

On Mon, 26 Jan 2004 17:10:41 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>Dipoles at even multiples of the main frequency have a problem. The two
>bands you mention should be the most difficult to tune with the tuner -
>regardless of the balun question. These two bands put the feedpoint at/near
>a high impedance feed point on the antenna. On 20 you have two half waves,
>one on each side and on 10 you have two full waves. If you do match it,
>the balun has to be able to handle the voltage. 10 being so wide, some part
>of the band may be a better Z for the tuner to handle.
>My guess is that the tuner (not) matching these bands will be a bigger
>problem than balun survivability. It has to handle an impedance "at the
>outer edge" of the Smith chart, so to speak. It may do it for certain
>feedline lengths, but not others. I don't know enough about the capability
>of these tuners to be more specific 0 except that the few I have seen specs
>on specify the Z range over which they can match, so if the Z at the tuner
>is outside that range...tilt.
>
>The 40M 1/2 wave dipole (or inverted V) will work fine on 30, 17 & 15 and
>probably 12 & 60 where the tuner shouldn't have to strain too much, so to
>speak. I've used my 40 M Inverted-V with my MFJ tuner on all these but 60
>(and of course 20 & 10). I even managed to load it on 75 with my MFJ tuner
>& work the east coast, but that's not a good thing. Just wanted to try.

1240. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 02:10:09 UTC
From: Sarge <sarge43@ev1.net>
Message-ID: <101bi48p11fjv4e@corp.supernews.com>
Source record: 101413

and just what the hell is wrong with cowboys?!?!?!

1241. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 02:12:17 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <5MOdnaDIFuIZJojdRVn-jg@ctc.net>
Source record: 101404

"> Is there such a thing, some guy in El Gorah, Egypt a Yank no less tried to
> sell my friend a copy of this, ok so him and I were a little game, we bought
> the thing from him, guess its seems to be all the right answers for the
> Advanced test, so my question is now how many of these things are there out
> there, and how guys are for real, not some two bit cow-boy that knows
> nothing about nothing. What happens when we need those guys in a emergency
> and they don't know crap!!.
>
> Guys if you know of other cheat sheets out there, please send them this way,
> I will do my level best to get them out.

There are suckers born every day. I may be one for sending this. The FCC requires that all question and answers for the test must be standard and published. They are free on the internet and for a few dollars you can get them most anywhere ham radio books are sold. It is about as cheep to buy the book as it is to print them out on your own printer.

1242. Re: Aluminum rod for yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 02:13:57 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <1Z6dnaRcSqN6JojdRVn-jA@ctc.net>
Source record: 101405

> Could anybody tell me where I can buy Aluminum rod 1/8", 3/16", 1/4"
> in 6 or 8 ft length for homebrew yagis in the US?
> Years ago, one could buy this in hardware stores, all over.

Try here:

http://www.texastowers.com/

1243. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 02:38:27 UTC
From: Minnie Bannister <GoonButNotForgotten@myob.net>
Message-ID: <101bjp82gte34b2@corp.supernews.com>
Source record: 101414

Not just *rural* fire departments: The Incorporated Village of Williston Park (pop. ~ 10,000) on Long Island, NY has a volunteer Fire Department, which solicits donations from the residents to keep things going.

Alan AB2OS

On 01/26/04 07:40 pm Joel Kolstad put fingers to keyboard and launched the following message into cyberspace:

> . . . Keep in mind that, in the
> U.S., the same is also true of many rural fire departments -- 100%
> volunteers!

1244. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 03:14:05 UTC
From: Bob <nospam@nowhere.nobody.forgetit.nil>
Message-ID: <aIkRb.4233$qU3.211692@news20.bellglobal.com>
Source record: 101415

Cecil Moore wrote:

> Same for ordinary citizens with concealed handgun permits.
> The violent crime rate has nose-dived in the USA while
> sky-rocketing in Australia, Canada, and the UK.

Sorry Cecil, violent crime is the lowest it's been in 15 years according to surveys by Statistics Canada as well as many demographic studies conducted by different universities.

Where did you read it was sky-rocketing in Canada?

Bob

1245. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 03:50:52 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4015E01C.A3DFA775@cwis.net>
Source record: 101416

Cecil,
Paint the airconditioner??
'Doc

1246. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 04:28:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4015e9a5_3@corp.newsgroups.com>
Source record: 101417

Zoran Brlecic wrote:
> Care to share? Not that I'm against carrying concealed and blasting the
> criminals away, mind you. It's just that these type of claims have
> regularly fallen under the urban legend category, i.e. fantasy.

I threw it away after reading. As I remember, crime in the US is
down 35% while crime in the UK is up 35%. Canada and Australia
were also mentioned as having increasing crime rates along with
their increasingly restrictive gun laws.

Even in the US, the highest crime rates are the states that have
the strictest gun laws. If you were a criminal, would you rather
break into a house in New York City or Dallas?

While I was living near Phoenix, "The Phoenix Sun" reported that
an attempted robbery using a knife at a local Circle-K was foiled
by an ordinary customer who was carrying a concealed weapon. "First
Freedom" magazine carries about ten similar reports per month where
the good guys' guns foil the bad guy's violent crimes. But apparently
that is not newsworthy enough for the liberal newspapers.

On another note, the local Madisonville Meteor carried the following
story. "C.G. was arrested for not driving without a license." :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1247. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 04:31:46 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4015eb36_3@news1.prserv.net>
Source record: 101418

Well, since Tom Landry was fired.....Oh, you said cowboys,
not The Cowboys. (Squeaky Roseanne Rosanadana voice:)
Nevermind.....

--
Crazy George
Remove N O and S P A M imbedded in return address
"Sarge" <sarge43@ev1.net> wrote in message
news:101bi48p11fjv4e@corp.supernews.com...
> and just what the hell is wrong with cowboys?!?!?!
>
>

1248. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 04:37:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4015ebe3_3@corp.newsgroups.com>
Source record: 101219

Bob wrote:
> Sorry Cecil, violent crime is the lowest it's been in 15 years according
> to surveys by Statistics Canada as well as many demographic studies
> conducted by different universities.

Is that the system where if a rape victim dies days after a rape,
without regaining consciousness, it is reported as neither a rape
nor a murder?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1249. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 04:55:59 UTC
From: tdonaly@aol.com
Message-ID: <20040126235559.21736.00000590@mb-m25.aol.com>
Source record: 101220

Bob wrote,
>
>Cecil Moore wrote:
>
>
>> Same for ordinary citizens with concealed handgun permits.
>> The violent crime rate has nose-dived in the USA while
>> sky-rocketing in Australia, Canada, and the UK.
>
>Sorry Cecil, violent crime is the lowest it's been in 15 years according
>to surveys by Statistics Canada as well as many demographic studies
>conducted by different universities.
>
>Where did you read it was sky-rocketing in Canada?
>
>Bob
>

Cecil reads all the inflammatory, right wing, gun magazines and
believes them.
Tom Donaly, KA6RUH

1250. Re: Aluminum rod for yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 05:07:12 UTC
From: manny <manny@mannynospamers.com>
Message-ID: <4015F200.96F99064@mannynospamers.com>
Source record: 101221

I have used McMaster-Carr for years, fast service
and the online catalog is a wealth of information on the items for sale
for example, the grades and types of aluminum rods and tubes. etc..

http://www.mcmaster.com

They ship from several whse. across the usa, I ordered online and had
the aluminum rods 3/16 " 6' lengths the next day at my door for ground
rates !

manny

W6/PA0ZN wrote:

> Hi All,
>
> Could anybody tell me where I can buy Aluminum rod 1/8", 3/16", 1/4"
> in 6 or 8 ft length for homebrew yagis in the US?
> Years ago, one could buy this in hardware stores, all over.
>
> 73 Rein W6/PA0ZN

1251. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 05:12:01 UTC
From: manny <manny@mannynospamers.com>
Message-ID: <4015F321.A1755CE9@mannynospamers.com>
Source record: 101222

How about the other 'club' in nyc at the high school,
the gear ends up for auction on ebay. they are a 503(c)charity.

manny

Jana wrote:

> http://www.limarc.org/members.htm
>
> 'Doc wrote:
>
> > N2ION,
> > How many members in your club? Any of them contribute
> > gear? Time? Can you think of a good way to prove to me
> > that you are ligitimate, not another scam?
> > 'Doc

1252. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 05:24:12 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <4015F606.2000406@get.lost>
Source record: 101223

Cecil Moore wrote:

>> Care to share? Not that I'm against carrying concealed and blasting
>> the criminals away, mind you. It's just that these type of claims have
>> regularly fallen under the urban legend category, i.e. fantasy.
>
> I threw it away after reading. As I remember, crime in the US is
> down 35% while crime in the UK is up 35%. Canada and Australia
> were also mentioned as having increasing crime rates along with
> their increasingly restrictive gun laws.

Well, I'd be extremely skeptical about this type of "statistics". For one, I am sure they were not comparing the same periods, and there are numerous tricks available for anyone who is attempting to prove anything with statistical figures. Take, for example, the US 35% reduction in crime rate. It is more than likely that this figure was achieved by comparing the crime rate from the peak of a recession to its bottom. The US crime rate always faithfully follows the economy - employed people don't have to resort to crime. No connection to the CCW whatsoever. What about the "increasing crime rate" in the UK or Canada? CCW has never been legal in these countries to begin with, yet both countries have the crime rate ten times lower than the US. I bet the mag never raised that issue.

> Even in the US, the highest crime rates are the states that have
> the strictest gun laws. If you were a criminal, would you rather
> break into a house in New York City or Dallas?

That's not how it works. A criminal in Dallas doesn't wake up one day and decide to break into a house, following up with a visit to the local library to do research on where he's less likely to get shot, then catching a bus to Big Apple. Also, the crime rate - gun law strictness comparison is a common post hoc fallacy. Is it possible that the relationship is inverse: because those states have the highest crime rates, they instituted the strictest gun laws?

> While I was living near Phoenix, "The Phoenix Sun" reported that
> an attempted robbery using a knife at a local Circle-K was foiled
> by an ordinary customer who was carrying a concealed weapon.

It happens. However, this type of testimonial evidence proves little. I'm not sure that as a neutral bystander I'd like to be in the middle of a shoot-out between the criminals and armed civilians. Even the police makes numerous mistakes in these types of situations, and we are to believe that any Joe Blow is capable of handling a situation where even the cops call for backup first.

> "First Freedom" magazine carries about ten similar reports per month where
> the good guys' guns foil the bad guy's violent crimes.

I'm sure they do. If I were the editor of a magazine pandering to the gun owners, I'd do the same, while completely ignoring the negative aspects.

> But apparently
> that is not newsworthy enough for the liberal newspapers.

"Liberal", as usual being defined as anything a person calling himself a conservative hates in a given moment? A friendly reminder: fat-ass hypocrite AM talk show drug addicts don't get to define liberalism and liberals, especially not with their hate propaganda.

73 ... WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

1253. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 05:27:40 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <4015F6D6.4060301@get.lost>
Source record: 101224

Cecil Moore wrote:

>> Sorry Cecil, violent crime is the lowest it's been in 15 years
>> according to surveys by Statistics Canada as well as many demographic
>> studies conducted by different universities.
>
> Is that the system where if a rape victim dies days after a rape,
> without regaining consciousness, it is reported as neither a rape
> nor a murder?

No, it isn't. And, btw, red herring.

73 ... WA7AA ex VA3GW

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

1254. Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 05:39:10 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <p7ub10h414c4pnqk54icseeukklks8o5p9@4ax.com>
Source record: 101225

www.qsl.net/n7ws

Follow the links.

1255. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 05:41:50 UTC
From: tdonaly@aol.com
Message-ID: <20040127004150.21833.00000486@mb-m25.aol.com>
Source record: 101226

Zoran wrote,
>
>Cecil Moore wrote:
>
>>> Sorry Cecil, violent crime is the lowest it's been in 15 years
>>> according to surveys by Statistics Canada as well as many demographic
>>> studies conducted by different universities.
>>
>> Is that the system where if a rape victim dies days after a rape,
>> without regaining consciousness, it is reported as neither a rape
>> nor a murder?
>
>No, it isn't. And, btw, red herring.
>
>73 ... WA7AA ex VA3GW
>
>--
>

The BBC reports that violent crimes reported to the police were up 14% in
the UK last year, but a more accurate survey, the British Crime Report
said violent crime actually dropped 3%. Overall crime in the UK was supposed
to be stable. The old wive's tale that crime rises in proportion to the number
of
restrictive gun laws isn't born out by statistics.
73,
Tom Donaly, KA6RUH

1256. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 06:26:12 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40160484.D94FABF0@cwis.net>
Source record: 101227

Jeff

> Long story short, I'm trying to figure out why the metal AC box
> functions just fine for a smaller magmount, but not the larger one.
>

One possible explanation is that it isn't the AC's box that's
different, but the amount of capacitive coupling furnished by
the
larger magnet mount. One way of finding out is by extending the
length of the antenna slightly to compensate for the greater
coupling.
If that lowers the SWR to a reasonable level (or even if it
doesn't, but
does lower the SWR), then you know you're onto something and can
'fiddle' with it till it's 'right'.
'Doc

1257. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 06:27:15 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <401604C3.A9CCAFC5@cwis.net>
Source record: 101228

Wes,
Do you really think that it makes ~that~ much
difference?
'Doc

1258. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 07:19:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l14c10h3clb5dp9pku09dfjs7qnkmsfgtm@4ax.com>
Source record: 101229

On Mon, 26 Jan 2004 21:07:24 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>Richard, my earlier posts described the grounding my friend, here is quick
>summary:
>
>1.Well grounded 100' tower, hundreds of feet of many radials, rods, etc.
>Survived many strikes.
>2. Feedline from tower's dipole was disconnected about 20' from tower where
>it enters a buried pvc conduit that travels 150' to house, then up to second
>story shack. Where nothing is grounded, except by virtue of house AC
>wiring - a bad I know (not mine either).
>3. Ground current from the tower strike most likely entered the coax
>feedlines at the disconnect point as they entered the pvc conduit then
>traveled on into house.
>4. House current also took huge jolts, zorching all kinds of connected
>equipment, phones, tv's etc.
>5. Outbuilding with radio equipment connected took huge hit, ball lightning
>inside room fried test cords connected to nothing, hanging on test bench,
>where the leads touched tile floor, huge blow-out of tile. AC power blew
>wall warts across room, computers next to each other had .22 rifle bullet
>sized hole between them. Equipment in this bldg was grounded, and some that
>was was damaged, others not touched. In short, a massive, multiple
>strike-path hit that may not be protectable from - but I realize there was a
>lot missing from a good ground picture here also.
>
>Jack

Hi Jack,

You know, it sounds like the lightning hit your house/out-building and
went toward the tower.

73's
Richard Clark, KB7QHC

1259. Re: upside down vertical? (aka: Squire's Jousting Pole)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 07:50:25 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <9JOdncFKeoXkjlvd4p2dnA@comcast.com>
Source record: 101230

> If the capacity hat is at the bottom, what will then be at the top? The
> counterpoise??

Yup.

> What were you intending to put at the bottom of the "non-inverted"
version?
> Radials, or just a ground rod?

Ground is lousy in Tucson where:
1) There is sand all over the place.
2) I'm on the second floor so my ground wire would radiate anyway.
3) I can't be sure of building grounds.
4) I can't bury my radials. Best to hide them in plain sight as innocent
SWL wires of #30 Kynar, invisible beyond 5 feet.

Therefore, a counterpoise makes better sense for me. Basically:

```
___
/ \ Birdhouse hides
feedpoint.
| o |
---------------=====--------------- 1/4 Lambda radials disguised as
invisible dipole.
O
O
O Helical wound
around 15 foot "support pole"
O for birdhouse.
O
O
O
-------- Capacity hat buried
in the sand.
```

> Is the intended design a ground-plane type vertical (1/4 wave -or rather a
> shortened 1/4 wave), or a di-pole (1/2 wave or rather a shortened 1/2
wave -
> center or end fed) type?

The former.

>
> It would seem to me that the bird house could be a pretty good "capacity
> hat" as it would have quite a bit of capacitance to the universe, being a
> pretty good volume of conductive material (since you would make sure it is
> conductive, that is). Also, I can easily see a "squirrel baffle" right

> below the bird house which, being made of metal, makes a pretty good
> addition to the "Bird hat".

I understand. Fortunately, no squirrels, just pigeons.

>
> ..Now, the question is, how much de-tuning will the bigger birds have
??....
> Stand-by fellas. I have to go out and chase the owl off my antenna to get
> the antenna tuned back to the top of the band.

I doubt for QRP it is going to matter much :)

I'm more interested in how my radiation pattern is going to be affected
by inverting the vertical, assuming that there would be effectively no
conductive ground below the capacity hat.

The Eternal Squire

>
>
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>
>
> "The Eternal Squire" <eternalsquire@comcast.net> wrote in message
> news:waGdnbpDDq3IV4_d4p2dnA@comcast.com...
> > Hi all,
> >
> > My wife wants to put up a birdfeeder and I want to put up a hidden
> antenna.
> > [...snip...]
> >
> > My intention is to put the birdfeeder on a dowel rod which I have wound
> with
> > #30 white wire and spraypainted with white paint. The dowel rod would
> be
> > 15-20 feet tall, so a helical for 10-80 meters might make a lot of
sense.
> >
> > Here's the big question: how badly would it hurt the helical's
> performance
> > to install it "upside down"? ....
> > The Eternal Squire
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.564 / Virus Database: 356 - Release Date: 1/19/04

1260. Top Loading Butternut HF2V for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 09:14:40 UTC
From: Dave Richardson <Dave.Richardson@dshack.demon.co.uk>
Message-ID: <bv5a6o$bu5$1$8300dec7@news.demon.co.uk>
Source record: 101231

Hi thanks for reading.
I'm trying to maximise the DX capabilities of my new HF2V/160S on top band.
Butternut recommend top loading wires, mainly for increasing the bandwidth
but some say this reduces the effective height, leading to detrimental
effects as a DX antenna?
Also, mine sways around like a whip in the wind so I'd imagine the loading
wires would have to be very slack?
I dont particularly need extra bandwidth so am unsure whether to go to the
bother?

Do you have any experience of top loading this or similar LF antennas?
Thanks in advance for any tips. 73 Dave G4GED

1261. stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 09:15:57 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <bv59pgptr1@fata.cs.interbusiness.it>
Source record: 101232

Hello to everybody,
first of all I say sorry for my bad English and for my really bad knowledge.
I'm projecting an antenna for RFID (13.56 MHz) and I don't know if is
possible to use a strip line with this frequency.
I've seen that in some books there are some theory equations regarding GHz,
but nothing about Mhz.
Is the wavelenght too long compare to the dimension of a stripline?
Thank you,

Massimo

1262. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 10:20:10 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <40163b52$1_1@news.vo.lu>
Source record: 101233
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

Many thanks to all you you.
I will probably contact you personally very soon.

73's
Thierry
ON4SKY

"Thierry" <To answer me in private use
http://www.astrosurf.com/lombry/post.htm> wrote in message
news:4013ccca$1_2@news.vo.lu...
> Hi,
>
> Was your house/shack stroken by Thor's hammer, I mean a lightning recently
?
> I am interested in your experience...
>
> If your installaiton was damaged by a strike event, I would like to now if
:
> - you used a central ground point bonded to an external grounding system,
as
> well as the home ground.
> - you left some gears switched on during the strike event
> - you left the TX switched on and the coaxial plugged without protection
> - you installed or not lightning controllers in your electric distribution
> panel
> - you had installed another protection
> - you swicthed off and unplugged all devices
> - you think that the energy came back via the grounding network (probably
> dut to a difference of potential in a device)
>
> Tell me only in a few words what was the most probable cause of the
> accident.
>
> At last, if you master the subject, do you really think that a grounding
> system, as best it could be as the advice provided by PolyPhaser for
> example, will never protect you against a direct strike on your antenna or
> on the house lightning conductor
> Why ?
>
> All this will help me to conclude the article dealing with this matter :
> http://www.astrosurf.com/lombry/qsl-lightning-protection.htm
>
> Thanks in advance
>

> NB. Answer preferably through these forums to please everybody.
>
> Thierry
> ON4SKY
>
>

1263. Re: Top Loading Butternut HF2V for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 11:08:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bv5gr3cuh1@sparta.btinternet.com>
Source record: 101234

HF2V/160S means nothing to me. I assume it is a coil loaded vertical.

Extending a loading wire from the top will seriously lower the top-band resonant frequency. Unless the loading coil is variable the loading wire will shift the resonant frequency right outside the band.

Assuming the coil inductance can be reduced, eg., shorted turns, then top capacitance loading will work nicely.

Extending the top sideways, even at an angle of 45 degrees below the horizontal, will considerably improve all-round performance. The longer the loading wire the better. If possible come downwards at the remote end to make an inverted-U out of it.

But a lot depends on the local environment.

The ground connection/system is just as important as the antenna. A single ground rod is not of any use unless it is all you have got. With good garden soil a system equivalent to half-dozen shortish radials, preferably shallow buried, will get you somewhere. Include the incoming water main and domestic plumbing system in the ground system. On 160m include all you can find.

Amuse yourself with program LOADCOIL.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

"Dave Richardson"
> Hi thanks for reading.
> I'm trying to maximise the DX capabilities of my new HF2V/160S on top
band.
> Butternut recommend top loading wires, mainly for increasing the bandwidth
> but some say this reduces the effective height, leading to detrimental
> effects as a DX antenna?
> Also, mine sways around like a whip in the wind so I'd imagine the loading
> wires would have to be very slack?
> I dont particularly need extra bandwidth so am unsure whether to go to the
> bother?
>
> Do you have any experience of top loading this or similar LF antennas?
> Thanks in advance for any tips. 73 Dave G4GED
>

>

1264. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 12:29:13 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401270429.3121f1bf@posting.google.com>
Source record: 101235

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<l14c10h3clb5dp9pku09dfjs7qnkmsfgtm@4ax.com>...
> On Mon, 26 Jan 2004 21:07:24 -0500, "Jack Painter" <223bthp@cox.net>
> wrote:
>
> >Richard, my earlier posts described the grounding my friend, here is quick
> >summary:
> >
> >1.Well grounded 100' tower, hundreds of feet of many radials, rods, etc.
> >Survived many strikes.
> >2. Feedline from tower's dipole was disconnected about 20' from tower where
> >it enters a buried pvc conduit that travels 150' to house, then up to second
> >story shack. Where nothing is grounded, except by virtue of house AC
> >wiring - a bad I know (not mine either).
> >3. Ground current from the tower strike most likely entered the coax
> >feedlines at the disconnect point as they entered the pvc conduit then
> >traveled on into house.
> >4. House current also took huge jolts, zorching all kinds of connected
> >equipment, phones, tv's etc.
> >5. Outbuilding with radio equipment connected took huge hit, ball lightning
> >inside room fried test cords connected to nothing, hanging on test bench,
> >where the leads touched tile floor, huge blow-out of tile. AC power blew
> >wall warts across room, computers next to each other had .22 rifle bullet
> >sized hole between them. Equipment in this bldg was grounded, and some that
> >was was damaged, others not touched. In short, a massive, multiple
> >strike-path hit that may not be protectable from - but I realize there was a
> >lot missing from a good ground picture here also.
> >
> >Jack
>
> Hi Jack,
>
> You know, it sounds like the lightning hit your house/out-building and
> went toward the tower.
>
> 73's
> Richard Clark, KB7QHC

Sounds like it. I'm fairly sure it didn't hit the tower. Or if it did,
it also hit the houses at the same time. You don't get dime size holes
in the house, unless the strike is traveling in the house. I don't
think it's too likely ground currents traveled up the unconnected coax
to the house. It would have gone on to ground at the tower, being it's
well grounded. I think the upstairs part of the house was struck, and

the coax from the drake, along with power wiring was the return to ground. Note all the damage in the house. Jack, you are one lucky $#^ *#^*@....:) It could have burned the house down. The coax to ground level from the upstairs drake may have routed a good bit of the strike out to ground. Not enough to save damage though..MK

1265. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 12:43:07 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <g1nc10tvd6gp3imcbs96l8ni020blmqhn3@4ax.com>
Source record: 101236

On Tue, 27 Jan 2004 00:27:15 -0600, 'Doc <w5lz@cwis.net> wrote:

|
|
|Wes,
| Do you really think that it makes ~that~ much
|difference?
| 'Doc

Yes... or no... or maybe, depending on what "it" is and how much
difference "it" does or does not make.

Regards,

Wes

1266. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 13:52:32 UTC
From: Alex Flinsch <alex@localhost.localdomain>
Message-ID: <slrnc1crhv.92v.alex@homer.linux1.lan>
Source record: 101237

In article <NLhRb.176$_62.87@read1.cgocable.net>, Nelson wrote:
> the thing from him, guess its seems to be all the right answers for the
> Advanced test, so my question is now how many of these things are there out

>
> Guys if you know of other cheat sheets out there, please send them this way,
> I will do my level best to get them out.

All of the test questions and answers are available somewhere on the net.
try http://www.arrl.org for a start.

BTW you did get ripped off, as there is no longer an Advanced test.

1267. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 14:44:47 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40167b9f_1@news1.prserv.net>
Source record: 101238

A half wavelength at that frequency is about 10 meters. Hard to fold that up in a small tag. Figure all dimensions are 1000X when translating from microwaves to HF.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Massi" <msignorini@calearotlc.com> wrote in message news:bv59pgptr1@fata.cs.interbusiness.it...
> Hello to everybody,
> first of all I say sorry for my bad English and for my really bad knowledge.
> I'm projecting an antenna for RFID (13.56 MHz) and I don't know if is
> possible to use a strip line with this frequency.
> I've seen that in some books there are some theory equations regarding GHz,
> but nothing about Mhz.
> Is the wavelenght too long compare to the dimension of a stripline?
> Thank you,
>
> Massimo
>
>

1268. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 14:59:18 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <401525fd_6@newsfeed.slurp.net>
Source record: 101239

Nelson, right now, there is NO Advanced-class test. Advanced-class licensees are currently being grandfathered, but no new licenses are being issued for the Advanced class.

Cheat sheet? Under current conditions, a U.S. Amateur Radio License exam is based on a fixed question pool. The questions and their corresponding correct answers are available.for just a couple of bucks from any American Amateur Radio retailer, and for free from many on-line websites. These materials are intended for study purposes only; "Cheat sheets" or any other material designed to falsely pass an Amateur Radio exam could result in automatic failure, fines, and/or permanent denial of license privileges.

- Mike KI6PR
El Rancho R.F., CA

"Nelson" wrote
El Gorah, Egypt a Yank no less tried to
> sell my friend a copy of this, ok so him and I were a little game, we
bought
> the thing from him, guess its seems to be all the right answers for the
> Advanced test, so my question is now how many of these things are there
out
> there, and how guys are for real, not some two bit cow-boy that knows
> nothing about nothing. What happens when we need those guys in a emergency
> and they don't know crap!!.
>
> Guys if you know of other cheat sheets out there, please send them this
way,
> I will do my level best to get them out.
>
>
> Nelson Stevens
>
>
>

1269. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 15:21:48 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401682cc$1_7@corp.newsgroups.com>
Source record: 101240

Zoran Brlecic wrote:
> No, it isn't. And, btw, red herring.

In one of those anti-gun countries, a crime is not reported as
an official crime until someone is convicted for the crime.
Unsolved crimes still on the books are not reported to the
outside world - bad for business.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1270. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 15:25:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4016839d_7@corp.newsgroups.com>
Source record: 101241

Tdonaly wrote:
> The BBC reports that violent crimes reported to the police were up 14% in
> the UK last year, but a more accurate survey, the British Crime Report
> said violent crime actually dropped 3%.

This is probably because the UK doesn't consider that a crime officially
exists until someone is convicted for the crime. Thus, reported crimes
that remain unsolved don't make it into their "more accurate survey".
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1271. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 15:48:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40168901_7@corp.newsgroups.com>
Source record: 101242

Zoran Brlecic wrote:
> "Liberal", as usual being defined as anything a person calling himself a
> conservative hates in a given moment?

I'm not a conservative and didn't vote for Bush. I'm a libertarian.
I believe in as much freedom from governmental intervention as is
feasible. Republicans want to limit my social freedoms. Democrats
want to limit my economic freedoms. I'm against both of them.

My offhand comment wasn't designed to turn this thread into an endless
tirade against guns by gun-haters. Guns work well for personal defense
in the hands of trained average citizens. The percentage of concealed
carry permit holders involved in crimes is miniscule compared to the
general population.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1272. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 15:56:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40168af2_7@corp.newsgroups.com>
Source record: 101243

Richard Harrison wrote:
> You actually get about 3 dBd gain from two !/2-wave dipoles when there
> is a 1/2-wave space between their adjacent ends versus only a 1.5 dBd
> gain when there is only the space of a short insulator between the ends
> of the 1/2-wave dipoles.

Too bad coils don't have a phase shift through them. :-) If they did,
a phase-reversing coil could be used in that "short insulator space"
to bring the gain back to about 3 dBd as described by Kraus in
_Antennas_for_all_Applications_, vol 3.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1273. Distance between transmit and receive antennas on 160 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 16:09:02 UTC
From: Metalhead <burcha@tampabay.rr.com>
Message-ID: <8t2d10p2982rgsubfgo5gocph33nddc7kf@4ax.com>
Source record: 101244

I am thinking about building a small receiving loop for 160 meters. I can probably only get the loop about 50 feet or so away from my transmitting antenna (inverted L.) My questions are:

1) Is this spacing to close?
2) Does spacing this close effect the radiation pattern for the transmitting Inverted L?
3) Is the only drawback to this close spacing a nosier receiving loop?

Would just like some opinions before I go through the trouble of building the loop. The particular loop design I am looking at is the KC2TX receiving loop.

Thanks for any opinions, positive or negative.

Burch
K4QXX

1274. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 16:31:13 UTC
From: Helmut Wabnig <hXXXwabnig@aXXXon.at>
Message-ID: <td4d10dfpgcooc0pi2nnfnq691g4hff3c5@4ax.com>
Source record: 101245

On Tue, 27 Jan 2004 10:15:57 +0100, "Massi"
<msignorini@calearotlc.com> wrote:

>Hello to everybody,
>first of all I say sorry for my bad English and for my really bad knowledge.
>I'm projecting an antenna for RFID (13.56 MHz) and I don't know if is
>possible to use a strip line with this frequency.
>I've seen that in some books there are some theory equations regarding GHz,
>but nothing about Mhz.
>Is the wavelenght too long compare to the dimension of a stripline?
>Thank you,

no strip lines necessary, this 13,56 MHz frequency is "DC radio" ,
a rather low frequency application.

Look there for a detailed description:

http://www.ti.com/tiris/docs/manuals/appNotes/HFAntennaDesignNotes.pdf

w.

1275. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 16:44:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p94d10lf2n4vfjhpn33aia1avne4kh5ade@4ax.com>
Source record: 101246

On Tue, 27 Jan 2004 05:43:07 -0700, Wes Stewart <n7ws@_arrl.net>
wrote:
>On Tue, 27 Jan 2004 00:27:15 -0600, 'Doc <w5lz@cwis.net> wrote:
>|
>|
>|Wes,
>| Do you really think that it makes ~that~ much
>|difference?
>| 'Doc
>
>Yes... or no... or maybe, depending on what "it" is and how much
>difference "it" does or does not make.
>Regards,
>Wes

Hi Wes,

The difference in your examination satisfyingly amounts to:
1.) the absence of ego towering over the problem;
1a.) the corresponding lack of sneer review that
reduces the argument to "you won't change my mind";
2.) the presence of clear unequivocal study of the problem;
3.) less than 1dB.

73's
Richard Clark, KB7QHC

1276. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 16:47:10 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <fa2dnUic27-YC4vdRVn-tw@comcast.com>
Source record: 101247

What a great way to reduce crime. Just ignore it.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401682cc$1_7@corp.newsgroups.com...
> Zoran Brlecic wrote:
> > No, it isn't. And, btw, red herring.
>
> In one of those anti-gun countries, a crime is not reported as
> an official crime until someone is convicted for the crime.
> Unsolved crimes still on the books are not reported to the
> outside world - bad for business.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1277. Re: upside down vertical? (aka: Squire's Jousting Pole)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 17:28:58 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv6781quh1@newshost.mot.com>
Source record: 101250

With great puzzlement Steve attempts a reply ...

"The Eternal Squire" <eternalsquire@comcast.net> wrote in message
news:9JOdncFKeoXkjIvd4p2dnA@comcast.com...

> > If the capacity hat is at the bottom, what will then be at the top? The
> > counterpoise??
>
> Yup.

But...but. Isn't that BIGGER than the capacity hat? Therefore a BIGGER
problem to hide from the neighbors...?

> > What were you intending to put at the bottom of the "non-inverted"
> > version? Radials, or just a ground rod?
>
> Ground is lousy in Tucson where:
> 1) There is sand all over the place.

OK, now were getting a better picture of your constraints.

> 2) I'm on the second floor so my ground wire would radiate anyway.

Won't touch the radiating ground wire here.

OK... Second floor out of how many? If you're at the top, can you
put some ("invisibly hidden") wires up over the roof? Along the outside
walls?

> 3) I can't be sure of building grounds.

That's irrelevant. A building ground is never an antenna ground (except
for special cases). People seem to think there is something special about
the "real ground", but that's another complete subject.

Getting back to the problem @ hand, you need to construct a self contained
antenna (both halves).

> 4) I can't bury my radials. Best to hide them in plain sight as innocent.

Yea. With some of that invisible paint. Sorry, couldn't help
myself, just being silly.

> SWL wires of #30 Kynar, invisible beyond 5 feet.
> Therefore, a counterpoise makes better sense for me. Basically:
>
> ___
> / \ Birdhouse
hides feedpoint.

> | o |
> ---------------=====---------------- 1/4 Lambda radials disguised as
> invisible dipole.
> O
> O
> O Helical wound around 15 foot "support
pole"
> O for birdhouse.
> O
> O
> O
> -------- Capacity hat
buried in the sand.

Yup. That's the picture I was getting.

But whoa! Hold on there partner. You really seem to be upside down in your thinking or I been smoking bad stuff... "Buried capacity hat" ... Yikes! You said above that you can't bury the radials! This is confusing. You say that you can "bury" a "capacity hat" (relatively small) yet "show" a radial system (relatively large). I still say you can make the capacity hat = "disguised as invisible dipole" and put the radials in the sand. Septin' you said you are on the second floor... Am I bitin' on something I shouldn't be bitin' on here fellas?

IF "SWL wires of #30 Kynar" are invisible, then how about an "SWL dipole".

> > It would seem to me that the bird house could be a pretty good "capacity
> > hat" ......

>
> I understand. Fortunately, no squirrels, just pigeons.

Be creative. Bigger house.... Hey! I just realized you were saying "bird house" and I was thinking "Bird feeder". Add a Bird house/feeder combo with a "seed catching tray" for all the "seeds that get knocked off the feeder". I have birds that intentionally knock seeds to the ground up here in glacial deposit country (Illinois)!

> > ..Now, the question is, how much de-tuning will the bigger birds have
??....
> > Stand-by fellas. I have to go out and chase the owl off my antenna to
get
> > the antenna tuned back to the top of the band.
>
> I doubt for QRP it is going to matter much :)

The very same amount as with QRO, friend.

How about a nice 9/11 honoring, patriotic "flag pole". Wink, wink, nudge, nudge.

Whew!...You got more constraints than Carter had pills... Collecting match book covers is a nice hobby. I have quite a collection I'd be willing to donate to get you started (and distracted).

Then there's IRLP / EchoLink?

73, Steve
--
Steve N, K,9;d, c. i My email has no u's.. and my brain hurts.

1278. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 17:30:59 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <u08d10pu7qforg5iv9a6kcbb584bfrffer@4ax.com>
Source record: 101248

```
On Tue, 27 Jan 2004 16:44:50 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

|On Tue, 27 Jan 2004 05:43:07 -0700, Wes Stewart <n7ws@_arrl.net>
|wrote:
|>On Tue, 27 Jan 2004 00:27:15 -0600, 'Doc <w5lz@cwis.net> wrote:
|>|
|>|
|>|Wes,
|>| Do you really think that it makes ~that~ much
|>|difference?
|>| 'Doc
|>
|>Yes... or no... or maybe, depending on what "it" is and how much
|>difference "it" does or does not make.
|>Regards,
|>Wes
|
|Hi Wes,
|
|The difference in your examination satisfyingly amounts to:
|1.) the absence of ego towering over the problem;
|1a.) the corresponding lack of sneer review that
| reduces the argument to "you won't change my mind";
|2.) the presence of clear unequivocal study of the problem;
|3.) less than 1dB.

Thanks!

Wes
```

1279. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 17:31:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv67c0$r63$1@newshost.mot.com>
Source record: 101249

"Massi" <msignorini@calearotlc.com> wrote in message
news:bv59pgptr1@fata.cs.interbusiness.it...
> Hello to everybody,
> [...] I'm projecting an antenna for RFID (13.56 MHz) and I don't know if
is
> possible to use a strip line with this frequency.
> I've seen that in some books there are some theory equations regarding
GHz,
> but nothing about Mhz.
> Is the wavelenght too long compare to the dimension of a stripline?

Yes. Just use a resonant circuit "open to the air".
--
Steve N, K,9;d, c. i My email has no u's.

1280. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 17:37:31 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv67o3rkk1@newshost.mot.com>
Source record: 101251

Love it!

"Topaz305RK" <2smoore@nemontel.net> wrote in message
news:P5SdnWn45qiQMIjd4p2dnA@vnet-inc.com...

> 1 2 3 4 5 6 7 8 9 10
> /
> /
> /
> /
> /
> /
> /
> /
> /
> /
> TROLL - O - METER
>
>

1281. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 17:38:45 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv67qd$rq4$1@newshost.mot.com>
Source record: 101254

Yea! WHAT?

"Sarge" <sarge43@ev1.net> wrote in message
news:101bi48p11fjv4e@corp.supernews.com...
> and just what the hell is wrong with cowboys?!?!?!
>
>

1282. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 17:39:25 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv67rlrrg1@newshost.mot.com>
Source record: 101253

Is this group old enough to know this George?

Steve

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
news:4015eb36_3@news1.prserv.net...
> Well, since Tom Landry was fired.....Oh, you said
cowboys,
> not The Cowboys. (Squeaky Roseanne Rosanadana voice:)
> Nevermind.....
>
> --
> Crazy George
> Remove N O and S P A M imbedded in return address
> "Sarge" <sarge43@ev1.net> wrote in message
> news:101bi48p11fjv4e@corp.supernews.com...
> > and just what the hell is wrong with cowboys?!?!?!
> >
> >
>
>

1283. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 17:45:22 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv686q$sb6$1@newshost.mot.com>
Source record: 101252

Mikey,
You missed the scam all together... Troll + "cheat sheet" + Advanced
test.

I understand there are such sheets for the Tech Plus and the class A and
Class B Amateur licenses as well. In addition, there are really good cheat
sheets for the 20 WPM Extra class Code test and the General 13 WPM code
test. I used them when I got my General in '61 and Extra.
http://www.codecheaters.org

73, Steve

P.S.

Did you all know that the same it true for Pilot licenses ?

"Mikey" <ki6pr@arrl.net> wrote in message
news:401525fd_6@newsfeed.slurp.net...
> Nelson, right now, there is NO Advanced-class test. Advanced-class
> licensees are currently being grandfathered, but no new licenses are being
> issued for the Advanced class.
>
> Cheat sheet? Under current conditions, a U.S. Amateur Radio License exam
is
> based on a fixed question pool. The questions and their corresponding
> correct answers are available.for just a couple of bucks from any American
> Amateur Radio retailer, and for free from many on-line websites. These
> materials are intended for study purposes only; "Cheat sheets" or any
other
> material designed to falsely pass an Amateur Radio exam could result in
> automatic failure, fines, and/or permanent denial of license privileges.
>
> - Mike KI6PR
> El Rancho R.F., CA
>
> "Nelson" wrote
> El Gorah, Egypt a Yank no less tried to
> > sell my friend a copy of this, ok so him and I were a little game, we
> bought
> > the thing from him, guess its seems to be all the right answers for the
> > Advanced test, so my question is now how many of these things are there
> out
> > there, and how guys are for real, not some two bit cow-boy that knows
> > nothing about nothing. What happens when we need those guys in a
emergency
> > and they don't know crap!!.

> >
> > Guys if you know of other cheat sheets out there, please send them this
> way,
> > I will do my level best to get them out.
> >
> >
> > Nelson Stevens
> >
> >
> >
>
>

1284. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 18:33:24 UTC
From: k7itm@aol.com
Message-ID: <3200347.0401271033.3ff23ce7@posting.google.com>
Source record: 101255

Stripline will work fine at 13MHz. I'd expect it to have a
characteristic impedance that's practically identical to what it has
at microwave frequencies, for any practical size line. If it's a
short run connecting to a load that's the same impedance as the line,
that's probably all you need to know, but if you're using it for a
matching stub or series matching section, you'll need to worry about
loss and propagation velocity and things like that...and in general,
at 13MHz you'll find it more efficient in both volume and power loss
to use a lumped matching network.

Tell us more specifically what you are trying to do, and we may be
able to give more help.

Cheers,
Tom

"Massi" <msignorini@calearotlc.com> wrote in message
news:<bv59pgptr1@fata.cs.interbusiness.it>...
> Hello to everybody,
> first of all I say sorry for my bad English and for my really bad knowledge.
> I'm projecting an antenna for RFID (13.56 MHz) and I don't know if is
> possible to use a strip line with this frequency.
> I've seen that in some books there are some theory equations regarding GHz,
> but nothing about Mhz.
> Is the wavelenght too long compare to the dimension of a stripline?
> Thank you,
>
> Massimo

1285. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 18:33:28 UTC
From: tdonaly@aol.com
Message-ID: <20040127133328.21833.00000502@mb-m25.aol.com>
Source record: 101256

Wes wrote,
>Message-id: <p7ub10h414c4pnqk54icseeukklks8o5p9@4ax.com>
>
>www.qsl.net/n7ws
>
>Follow the links.
>

Very good, but what is "current moment?"
73,
Tom Donaly, KA6RUH

1286. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 18:51:37 UTC
From: tdonaly@aol.com
Message-ID: <20040127135137.21833.00000503@mb-m25.aol.com>
Source record: 101257

Cecil wrote,
>
>Richard Harrison wrote:
>> You actually get about 3 dBd gain from two !/2-wave dipoles when there
>> is a 1/2-wave space between their adjacent ends versus only a 1.5 dBd
>> gain when there is only the space of a short insulator between the ends
>> of the 1/2-wave dipoles.
>
>Too bad coils don't have a phase shift through them. :-) If they did,
>a phase-reversing coil could be used in that "short insulator space"
>to bring the gain back to about 3 dBd as described by Kraus in
>_Antennas_for_all_Applications_, vol 3.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

What value coil does Kraus recommend, Cecil, for, say, a
pair of forty meter dipoles to make them do what you want
at forty meters?
73,
Tom Donaly, KA6RUH

1287. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 18:55:42 UTC
From: Nelson <tstevens@cogeco.ca>
Message-ID: <TuyRb.262$SY3.51171@read2.cgocable.net>
Source record: 101259

Steve wasn't looking for a cheat sheet I was just wondering how many people out there used this sort of thing to get a licence, what happens when we need a HAM op and he doesn't know his ass from grass.

Nelson

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message news:bv686q$sb6$1@newshost.mot.com...
> Mikey,
> You missed the scam all together... Troll + "cheat sheet" + Advanced
> test.
>
> I understand there are such sheets for the Tech Plus and the class A and
> Class B Amateur licenses as well. In addition, there are really good
cheat
> sheets for the 20 WPM Extra class Code test and the General 13 WPM code
> test. I used them when I got my General in '61 and Extra.
> http://www.codecheaters.org
>
> 73, Steve
>
> P.S.
>
> Did you all know that the same it true for Pilot licenses ?
>
>
>
> "Mikey" <ki6pr@arrl.net> wrote in message
> news:401525fd_6@newsfeed.slurp.net...
> > Nelson, right now, there is NO Advanced-class test. Advanced-class
> > licensees are currently being grandfathered, but no new licenses are
being
> > issued for the Advanced class.
> >
> > Cheat sheet? Under current conditions, a U.S. Amateur Radio License
exam
> is
> > based on a fixed question pool. The questions and their corresponding
> > correct answers are available.for just a couple of bucks from any
American
> > Amateur Radio retailer, and for free from many on-line websites. These
> > materials are intended for study purposes only; "Cheat sheets" or any
> other
> > material designed to falsely pass an Amateur Radio exam could result in
> > automatic failure, fines, and/or permanent denial of license privileges.

> >
> > - Mike KI6PR
> > El Rancho R.F., CA
> >
> > "Nelson" wrote
> > El Gorah, Egypt a Yank no less tried to
> > > sell my friend a copy of this, ok so him and I were a little game, we
> > bought
> > > the thing from him, guess its seems to be all the right answers for
the
> > > Advanced test, so my question is now how many of these things are
there
> > out
> > > there, and how guys are for real, not some two bit cow-boy that knows
> > > nothing about nothing. What happens when we need those guys in a
> emergency
> > > and they don't know crap!!.
> > >
> > > Guys if you know of other cheat sheets out there, please send them
this
> > way,
> > > I will do my level best to get them out.
> > >
> > >
> > > Nelson Stevens
> > >
> > >
> > >
> >
> >
>
>

1288. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 18:59:31 UTC
From: Nelson <tstevens@cogeco.ca>
Message-ID: <tyyRb.263$SY3.53412@read2.cgocable.net>
Source record: 101258

DONATIONS

DONATIONS

I could use any kind of

DONATIONS

DONATIONS

If you live in the Kingston VE3 area I would like to have a look

Nelson

"manny" <manny@mannynospamers.com> wrote in message
news:4015F321.A1755CE9@mannynospamers.com...
> How about the other 'club' in nyc at the high school,
> the gear ends up for auction on ebay. they are a 503(c)charity.
>
> manny
>
> Jana wrote:
>
> > http://www.limarc.org/members.htm
> >
> > 'Doc wrote:
> >
> > > N2ION,
> > > How many members in your club? Any of them contribute
> > > gear? Time? Can you think of a good way to prove to me
> > > that you are ligitimate, not another scam?
> > > 'Doc
>

1289. Re: Plastic Dipole centerpiece

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 20:15:58 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <pghd10p6e7fh5uk1adqepmp4rndai2uvj1@4ax.com>
Source record: 101260

On 26 Jan 2004 09:11:06 -0600, tclay@qmc.ph.msstate.edu (R. Torsten
Clay) wrote:

>
>
>>Richard,
>> I would think that would depend on what you can find
>>available,
>>PVC, plexiglas, 'Delrin', who knows what else. I've used a
>>multi-
>>layer thingy of plexiglas glued together before, seemed to work
>>okay. So the question is 'what can you find?'.
>> 'Doc
>
>I use the plastic from kitchen cutting boards for such parts. Strong and
>easily available.

I've been using 1/4 inch thick Plexiglass and Lexan scraps from the
local hard ware store. Generally they will give away the Plexiglass
pieces that are big enough to use for center supports and insulators.
(3 X 6 inches) YMMV With the price of Lexan the pieces are pretty
small before they give those away. I bought a piece about 3 feet long
and a foot wide with the protective paper on both sides. That stuff
is expensive, but very handy and it doesn't age like Plexiglass out in
the sun.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
>Torsten
>N4OGW

1290. Re: Distance between transmit and receive antennas on 160 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 20:43:05 UTC
From: David Robbins <noone@nowhere.com>
Message-ID: <vvqdnflxht39UIvd4p2dnA@crocker.com>
Source record: 101261

"Metalhead" <burcha@tampabay.rr.com> wrote in message
news:8t2d10p2982rgsubfgo5gocph33nddc7kf@4ax.com...
>
> I am thinking about building a small receiving loop for 160 meters. I
> can probably only get the loop about 50 feet or so away from my
> transmitting antenna (inverted L.) My questions are:
>
> 1) Is this spacing to close?

only if you want to tx and rx at the same time

> 2) Does spacing this close effect the radiation pattern for the
> transmitting Inverted L?

probably not so that you would notice it.

> 3) Is the only drawback to this close spacing a nosier receiving
> loop?

the loop will probably not pick up much coupled from the L, or at least not
enough to cause any real problem.

>
> Would just like some opinions before I go through the trouble of
> building the loop. The particular loop design I am looking at is the
> KC2TX receiving loop.
>
> Thanks for any opinions, positive or negative.
>
> Burch
> K4QXX
>

1291. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 21:00:08 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv6jk1fpe1@newshost.mot.com>
Source record: 101262

You ask guys like me. I know everything except how to be humble.

Besides, it's always been that way.--
Steve N, K,9;d, c. i My email has no u's.

"Nelson" <tstevens@cogeco.ca> wrote in message
news:TuyRb.262$SY3.51171@read2.cgocable.net...
> Steve wasn't looking for a cheat sheet I was just wondering how many
people
> out there used this sort of thing to get a licence, what happens when we
> need a HAM op and he doesn't know his ass from grass.
>
> Nelson

1292. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 21:15:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4016d5ac_7@corp.newsgroups.com>
Source record: 101263

Tdonaly wrote:
> What value coil does Kraus recommend, Cecil, for, say, a
> pair of forty meter dipoles to make them do what you want
> at forty meters?

It's a textbook, not a cookbook, so he doesn't recommend a specific "value". The requirement is that the coil be self-resonant at the operating frequency. Quoting Kraus: "Here the (1/2WL) elements present a high impedance to the coil which may be resonated without an external capacitance due to its distributed capacitance." He says a 2-element array of 1/2WL elements has a gain of 3.8 dBi, a 3-element array a gain of 5.3 dBi, and a 4-element array a gain of 6.4 dBi.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1293. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 21:19:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4016d68d_7@corp.newsgroups.com>
Source record: 101264

Nelson wrote:
> Steve wasn't looking for a cheat sheet I was just wondering how many people
> out there used this sort of thing to get a licence, what happens when we
> need a HAM op and he doesn't know his ass from grass.

Right on. What if the aliens take over and Morse code is
needed to save the earth?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1294. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 21:27:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4016d88d_7@corp.newsgroups.com>
Source record: 101265

Steve Nosko wrote:
I know everything except how to be humble.

"Oh Lord, it's hard to be humble,
when you're perfect in every way ..."
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1295. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 21:55:12 UTC
From: Jana <jana@nospamer.com>
Message-ID: <4016DE3F.50FC8A50@nospamer.com>
Source record: 101266

Guess it only helps with the Tourism !

CW wrote:

> What a great way to reduce crime. Just ignore it.
>

1296. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 22:20:30 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <OuBRb.13755$F86.1531636@twister.southeast.rr.com>
Source record: 101267

In the plan I have for one it calls for a piece of fiberglass rod, others bakelite. to keep the two sections of the J at the right sepration. Somtimes mechanical rigidity is enough, for one like the latter search for "copper cactus".

"Donnie B" <Nova_Man73@webtv.net> wrote in message news:1571-4013236D-220@storefull-3278.bay.webtv.net...
> I recently built a two meter j-pole.In the plan,I saw no mention of pvc
> use.Yet,I had to place a piece of pvc between the two uprights to get
> the swr to fall.Is there something I missed?
> Also,I have been thinking about long-wire antennas.Every long-wire I've
> seen has been in an East-to-West direction.How would it work if I divide
> the wire lengths and transform a long-wire into multiple directions?I
> realize most foreign lands are to the East and West,but what about the
> North and South coverage?
>

1297. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 22:33:36 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv6p3cnsu1@newshost.mot.com>
Source record: 101169

Cecil,
I should clarify that I was being humorous.

Since I did, I used to say that "I know everything." Some time back, a friend noted that this was a bit arrogant and mentioned it to me. Reason prevailed and I did, indeed, realize that it was. I was therefore forced to change to the one I used, namely; "I know everything except how to be humble. " A short time later, it occurred to that same friend that if I was, indeed, admitting to the non humble behavior, I was most certainly showing signs of humility. I was therefore forced to go to the original "I know everything."
'guards, Steve

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4016d88d_7@corp.newsgroups.com...
> Steve Nosko wrote:
> I know everything except how to be humble.
>
> "Oh Lord, it's hard to be humble,
> when you're perfect in every way ..."
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1298. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 22:36:49 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv6p99$o3g$1@newshost.mot.com>
Source record: 101268

It's more of a math term than an antenna term. I believe this refers to the 'method of moments' used to calculate the far field. Take the currents in all the little sections of the antenna and sum the contributions of each for the total field...like what happens in real life.
Steve N.

"Tdonaly" <tdonaly@aol.com> wrote in message news:20040127133328.21833.00000502@mb-m25.aol.com...
> Wes wrote,
> >Message-id: <p7ub10h414c4pnqk54icseeukklks8o5p9@4ax.com>
> >
> >www.qsl.net/n7ws
> >
> >Follow the links.
> >
>
> Very good, but what is "current moment?"
> 73,
> Tom Donaly, KA6RUH
>
>

1299. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 22:38:42 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv6pcroai1@newshost.mot.com>
Source record: 101170

From reading between the lines (RFID) I got the impression the OP was after
an antenna not a transmission line.
Steve N.

"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0401271033.3ff23ce7@posting.google.com...
> Stripline will work fine at 13MHz. I'd expect it to have a
> characteristic impedance that's practically identical to what it has
> at microwave frequencies, for any practical size line. If it's a
> short run connecting to a load that's the same impedance as the line,
> that's probably all you need to know, but if you're using it for a
> matching stub or series matching section, you'll need to worry about
> loss and propagation velocity and things like that...and in general,
> at 13MHz you'll find it more efficient in both volume and power loss
> to use a lumped matching network.
>
> Tell us more specifically what you are trying to do, and we may be
> able to give more help.
>
> Cheers,
> Tom
>
> "Massi" <msignorini@calearotlc.com> wrote in message
news:<bv59pgptr1@fata.cs.interbusiness.it>...
> > Hello to everybody,
> > first of all I say sorry for my bad English and for my really bad
knowledge.
> > I'm projecting an antenna for RFID (13.56 MHz) and I don't know if is
> > possible to use a strip line with this frequency.
> > I've seen that in some books there are some theory equations regarding
GHz,
> > but nothing about Mhz.
> > Is the wavelenght too long compare to the dimension of a stripline?
> > Thank you,
> >
> > Massimo

1300. test. please ignore

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 23:35:46 UTC
From: kz3ab@arrl.net
Message-ID: <4dd27175.0401271535.398d26b4@posting.google.com>
Source record: 101171

Please ignore.

1301. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 23:46:26 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4016f913_7@corp.newsgroups.com>
Source record: 101172

Steve Nosko wrote:
> Cecil, I should clarify that I was being humorous.

So was I, Steve. Those are the words to a neat
Country and Western Song.

"Oh Lord, it's hard to be humble,
but I'm doing the best that I can."
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1302. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-27 23:52:40 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <8RCRb.169112$xy6.792930@attbi_s02>
Source record: 101173

Cecil was nominated for the Humblest-Man-of-the-Year award in 2003.

But, the award's chairman revoked it when Cecil held out his jacket's
lapel so it could be pinned on! :-)

DD

Cecil Moore wrote:

> Steve Nosko wrote:
> I know everything except how to be humble.
>
> "Oh Lord, it's hard to be humble,
> when you're perfect in every way ..."

1303. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 00:06:36 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <g2DRb.11770$Cg2.2982@newssvr23.news.prodigy.com>
Source record: 101174

"'Doc" <w5lz@cwis.net> wrote in message news:40133752.E3E5A7DF@cwis.net...
> All that I know about this particular tower is what I've
> seen on the website given. I think raising the tower sections
> in this way is a pretty 'niffy' idea. As for the rest of the
> tower, it seems like just another 'square' tower with something
> like the 'hazer' added. Nothing wrong with it as far as I could
> see, but also not really anything 'special'.

The one thing I don't like about it... I don't
see any triangles, anywhere. All square
construction. This causes it to rely on the
material, rather than the design, for strength.

Self-supporting towers should taper... is this
not obvious?

--
Steve
KI5YG
.

1304. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 00:17:27 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <rcDRb.11771$sD2.11129@newssvr23.news.prodigy.com>
Source record: 101175

"Jimmy" <Gfender@carolina.rr.com> wrote in message
news:OuBRb.13755$F86.1531636@twister.southeast.rr.com...
> In the plan I have for one it calls for a piece of fiberglass rod, others
> bakelite. to keep the two sections of the J at the right sepration.

Are we talking regular J, or Super J here? The
antenna you're describing is a Super, a colinear
array with the middle phasing section. In a normal
J-pole, there is no insulator needed.

Here's a confusing point from the original post...

<>
I recently built a two meter j-pole.In the plan,I saw no mention of pvc
use.Yet,I had to place a piece of pvc between the two uprights to get
the swr to fall.Is there something I missed?
</>

Is the pipe used in an insulator fashion, or
is it used to spread the Q-section? I believe
it's the latter... if so, the newbie can just bend
or re-solder the pole so the spacing's correct.

And if the newbie is describing a 300ohm
twinlead J-pole, then I give up.

>Somtimes
> mechanical rigidity is enough, for one like the latter search for "copper
> cactus".

A thing of beauty... I've got a nice copper
J for six that I'm considering converting to
the saguaro configuration.

--
Steve
KI5YG
.

1305. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 00:27:37 UTC
From: tdonaly@aol.com
Message-ID: <20040127192737.21785.00000921@mb-m14.aol.com>
Source record: 101176

Cecil wrote,
>
>Tdonaly wrote:
>> What value coil does Kraus recommend, Cecil, for, say, a
>> pair of forty meter dipoles to make them do what you want
>> at forty meters?
>
>It's a textbook, not a cookbook, so he doesn't recommend a
>specific "value". The requirement is that the coil be self-
>resonant at the operating frequency. Quoting Kraus: "Here the
>(1/2WL) elements present a high impedance to the coil which
>may be resonated without an external capacitance due to its
>distributed capacitance." He says a 2-element array of 1/2WL
>elements has a gain of 3.8 dBi, a 3-element array a gain of
>5.3 dBi, and a 4-element array a gain of 6.4 dBi.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

So he didn't give an analysis, but just wrote that a self-resonant
coil would do the job. Thanks, Cecil.
73,
Tom Donaly, KA6RUH

1306. Re: upside down vertical? (aka: Squire's Jousting Pole)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 00:28:10 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <umDRb.11772$vF2.1144@newssvr23.news.prodigy.com>
Source record: 101177

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:bv6781quh1@newshost.mot.com...
> With great puzzlement Steve attempts a reply ...

...

> But whoa! Hold on there partner. You really seem to be upside down in
> your thinking or I been smoking bad stuff... "Buried capacity hat" ...
> Yikes! You said above that you can't bury the radials! This is
confusing.
> You say that you can "bury" a "capacity hat" (relatively small) yet "show"
a
> radial system (relatively large). I still say you can make the capacity
> hat = "disguised as invisible dipole" and put the radials in the sand.
> Septin' you said you are on the second floor... Am I bitin' on something
I
> shouldn't be bitin' on here fellas?

You can't put the voltage end of an antenna
in the dirt... you're working into a short. It
has to be the normal way, since we are talking
about ground here.

Just do the cap hat in wire-wrap wire
like you were going to do the counterpoise...
I see no need to invert the thing.

Not to mention the difficulty in lowering
the antenna every time you add food...
what about the hazard of invisible wires
to birds? Sounds like you're creating
a bird-mangling device.

A pox on all deed restrictions regarding
antennas!

--
Steve
KI5YG
.

1307. Re: Help! Apartment Antenna Question!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 00:33:12 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <crDRb.11773$JJ2.7474@newssvr23.news.prodigy.com>
Source record: 101178

"'Doc" <w5lz@cwis.net> wrote in message news:4013394E.52C6DDEA@cwis.net...
>
>
> Jeff,
> Try using the AC as a mounting point for a horizontal
> bar running out far enough to mount an antenna on, such
> as some type of 'base'(?) antenna.
> All antennas have to be tuned and/or impedance matched.
> Any antenna near obstructions will have undesirable
> characteristics compared to the same antenna in the 'clear'.
> I think what you're seeing is fairly 'normal' for your
> situation. Good luck...
> 'Doc

What Doc said... your high-gain base antenna
has phased sections that interact badly when
their near-field radiation is interfered with.
Get ye a yardarm! Something like that, to
get the antenna out farther.

--
Steve
.

1308. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 00:35:48 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401703E4.2BFAE08A@uci.edu>
Source record: 101181

Dave Shrader wrote:
>
> Cecil was nominated for the Humblest-Man-of-the-Year award in 2003.
>
> But, the award's chairman revoked it when Cecil held out his jacket's
> lapel so it could be pinned on! :-)
>
> DD

What actually happened is Cecil became impatient with the ceremony,
reached up, grabbed the pin, and put it on himself.

73, jk

> Cecil Moore wrote:
>
> > Steve Nosko wrote:
> > I know everything except how to be humble.
> >
> > "Oh Lord, it's hard to be humble,
> > when you're perfect in every way ..."

1309. Re: FC-20 Antenna Tuner broken on 10m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 00:45:10 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <qCDRb.11778$SN2.5534@newssvr23.news.prodigy.com>
Source record: 101180

"Simon" <nahidontthinkso@somewhere.com> wrote in message
news:8jzPb.5908$KV.70073452@news-text.cableinet.net...
> Hi,
>
> I'm using a Yaesu FC-20 ATU but find it won't work on (or near) the 10m
> band. IF I try to tune the tuner takes ages and the 'SWR bars' on the 100D
> seem to flicker as if there is a bad connection and then the tuner gives
up.
> It's not because the antenna is a bad match because i've tried a windom
with
> about 2-1 match and also a half-wave vertical whch is a good match at
1.5-1
> but the tuner still can't 'see' this good match and won't tune.
>
> Is there something in the tuner that is only used for 10m? Maybe a certain
> inductor with a bad connection/broken that when it tries to 'select' for
10m
> doesn't work? Or could it be the radio istelf? The tuner seems to work
very
> well on all the other bands (though it can be quite slow and sometimes
> misses the best swr and finishes with 'two bars' for the match)

What's your shack RF ground look like? Sounds like
you're up on the second floor to me...

--
Steve
KI5YG
.

1310. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 00:45:14 UTC
From: tdonaly@aol.com
Message-ID: <20040127194514.21785.00000925@mb-m14.aol.com>
Source record: 101179

Steve wrote,
>
>It's more of a math term than an antenna term. I believe this refers to the
>'method of moments' used to calculate the far field. Take the currents in
>all the little sections of the antenna and sum the contributions of each for
>the total field...like what happens in real life.
>Steve N.
>

Thanks Steve. The way the fellow used it it sounded like a single
quantity the square of which was proportional to the radiation
resistance. People who write articles for journals sometimes
get a bit fanciful in their terminology.
73,
Tom Donaly, KA6RUH

1311. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 01:03:03 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <101e2gobksc0ja3@corp.supernews.com>
Source record: 101182

" Stephen Cowell" <scowell@sbcglobal.net> wrote in message
news:rcDRb.11771$sD2.11129@newssvr23.news.prodigy.com...
>
> "Jimmy" <Gfender@carolina.rr.com> wrote in message
> news:OuBRb.13755$F86.1531636@twister.southeast.rr.com...
> > In the plan I have for one it calls for a piece of fiberglass rod,
others
> > bakelite. to keep the two sections of the J at the right sepration.
>
> Are we talking regular J, or Super J here? The
> antenna you're describing is a Super, a colinear
> array with the middle phasing section. In a normal
> J-pole, there is no insulator needed.

If a 2 meter J-pole construction is imperfect enough that
the short and long vertical portions are not exactly parallel
it might require an insulated piece of something to force them
to be parallel. If one builds a 6 meter J-pole the long and short
vertical parts are sufficiently lengthy and flexible that some
kind of insulating brace will probably be required to keep
winds from misaligning them. I recently built just such a 6 meter
J-pole that used a 102" whip to reduce weight and wind loading
on the top of the 1/2 wave radiator side. Even so the original plan
called for a pvc brace to keep the vertical tubes aligned. (the
whip portion of the 1/2 wave radiator started about 7 inches
above the top of the 1/4 wave matching stub) Both the lower
portion of the radiator and all of the matching stub were of
3/4 inch copper pipe.

Harold
KD5SAK

1312. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 01:20:21 UTC
From: dplatt@radagast.org
Message-ID: <101e3il88sjopb1@corp.supernews.com>
Source record: 101183

>If a 2 meter J-pole construction is imperfect enough that
>the short and long vertical portions are not exactly parallel
>it might require an insulated piece of something to force them
>to be parallel.

For what it's worth - the "American Legion" aluminum-rod J-poles which are quite popular in my area have just this sort of separator near the top of the matching section. It seems likely to me that the junctions between the rods, and the aluminum crosspiece which forms the bottom of the J-pole are not rigid enough to keep the rods parallel over the lifetime of the antenna, and that bracing is necessary.

These J-poles use a somewhat uncommon feed technique - the SO-259 is attached near the center of the crosspiece and grounded there, and the short side of the matching section is fed through a bent-wire transmission line and gamma match.

http://www.pcarc.net/jpole.pdf shows the construction, including the crossbrace.

I'm not sure just what they use for the cross-brace - the document indicates acrylic. This doesn't seem to stand up to sunlight all that well in the long term - if I see an American Legion J-pole which has failed, it's usually due to the cross-piece breaking. I'd suggest ABS, black Delrin, or some other plastic which is more UV-stable (or, just coat clear or white acrylic with paint to shield it from UV).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1313. Re: Distance between transmit and receive antennas on 160 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 01:24:38 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <101e3r77m7kgt31@corp.supernews.com>
Source record: 101184

Several years ago I put up an 80mtr loop without taking down my inverted V. The loop sorta surounded the V. and I did have an improved receive and transmit signal on it. When I lowered the V down to ground level I couldn't tell any difference in the loop. So, if it's ok on 80 it oughta be ok for 160 whether you use one or both at the same time.

Try it, only cost you a little time.

Butch KF5DE

Metalhead wrote:

> I am thinking about building a small receiving loop for 160 meters. I
> can probably only get the loop about 50 feet or so away from my
> transmitting antenna (inverted L.) My questions are:
>
> 1) Is this spacing to close?
> 2) Does spacing this close effect the radiation pattern for the
> transmitting Inverted L?
> 3) Is the only drawback to this close spacing a nosier receiving
> loop?
>
> Would just like some opinions before I go through the trouble of
> building the loop. The particular loop design I am looking at is the
> KC2TX receiving loop.
>
> Thanks for any opinions, positive or negative.
>
> Burch
> K4QXX
>

1314. Re: test. please ignore

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 01:26:53 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <101e3v2asmk5dde@corp.supernews.com>
Source record: 101185

Damn Al, I read the thing. If I hadda just read the subject....

Butch

Al wrote:

> Please ignore.

1315. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 01:29:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qp3e109765g04g8h0jh2c0egfnevq5d8n4@4ax.com>
Source record: 101186

On 28 Jan 2004 00:45:14 GMT, tdonaly@aol.com (Tdonaly) wrote:

>Steve wrote,
>>
>>It's more of a math term than an antenna term. I believe this refers to the
>>'method of moments' used to calculate the far field. Take the currents in
>>all the little sections of the antenna and sum the contributions of each for
>>the total field...like what happens in real life.
>>Steve N.
>>
>
>Thanks Steve. The way the fellow used it it sounded like a single
>quantity the square of which was proportional to the radiation
>resistance. People who write articles for journals sometimes
>get a bit fanciful in their terminology.
>73,
>Tom Donaly, KA6RUH
>

Hi Fellows,

I dunno. When I read it, it looked like a reference to graphical
analysis or the projection of a point that represents a mean within a
surface area (which, again, harkens back to the "sinusoidal" current
distribution curve).

73's
Richard Clark, KB7QHC

1316. Automotive Diversity Reception problems- 98 Corvette

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 01:48:09 UTC
From: ericdwong@yahoo.com
Message-ID: <7b667fe1.0401271748.6655a4c7@posting.google.com>
Source record: 101187
Cross-posted to: rec.radio.amateur.antenna,rec.autos.tech

not sure where I should have posted this, anyway I have a 98 Corvette and it uses diversity reception. There is one antenna embedded in the front glass, and another in the rear glass. The control/switching box is above my head.

My FM reception really really sux on my coup, even with an aftermarket radio. The reception in my 97 Maxima (which has diversity reception- 1 power mast style antenna, and one in the rear glass style) has the best reception for a car radio I've ever seen. Anyway, it does not help my front antenna was rubbed off, probably cause there used to be a tint strip there and that was taken off. I repaired that the best I could with circuit board repair conductive paint. However, the reception still leaves to be desired.
I am thinking about putting in a power antenna on the rear fender from a 03 Corvette convert. I cannot get ANY AM stations whatesover and most FM is rather fuzzy. now that I'm on the highway alot, I need to depend on the AM and FM to check traffic (and I cant stand it when I know that something is wrong with my car).

Or, is there a way to check that my current diversity reception is functional right now? Thanks

1317. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 02:32:28 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <v45e10hstadibt545408hgocu0aiispkur@4ax.com>
Source record: 101188

On Sun, 25 Jan 2004 11:33:38 -0500, "Ralph Mowery" <rmowery@ctc.net>
wrote:

>> >
>> >Yea, allow about 6 to 10 yards of concrete for starters.
>> >Not sure how big of a hole that would take right off in dimensions.
>> >
>> That's in the ballpark of a small concrete house foundation, isn't it?
>>
>> That would be 162 cu ft (for 6 yards of concrete) or
>> 10 x 10 x 1.6 ft, or
>> 6 x 6 x 4.5 ft.
>>
>> For reference, 10 yards is the typical capacity of a cement mixer
>> truck.
>>
>> For any project, you need to look at the total cost of installation
>> and all components, not just the primary component.
>

I figure I have as much invested in concrete as I do in the tower and
mine is guyed. http://www.rogerhalstead.com/ham_files/tower.htm

>As you have shown there are many ways to pour the material . I am sure the
>tower maker has their recommendations. I doubt it would do much good to
>have it only 1.5 feet deep and 10 feet wide. I would think it would be

Although it's not normally recommended to go that way, the weight is
the stabilizing factor to be considered.

>poured in more of a cubic form but deeper than it is wide. Also there is

A cube is normally fine, but still, there are zoning restrictions and
the engineering standards by which to abide. With ROHN they come
right out and give you the specs.

Disclaimer: Do not use my calculations for anything other than an
examples. Refer to the specific pages in the ROHN catalog for actual
requirements.

Going over the catalog they list the base for a free standing ROHN
45-G as requiring 4.1 yards of concrete. That makes the assumption
the builder will strictly adherer to the ROHN Specs and maximum wind
loading. Based on the 45 G specs the concrete base will be 5'3" on a
side, or for a ball park figure that is 27.5 sq ft. A cubic yard is 3
X 3 X 3 or 27 cubic feet. Sooo... we can figure *roughly* with a base
of those dimensions, each foot of depth equals one yard of concrete.

Then the base would be 4 feet deep and 5' 3" square.
BUT the 45 G is limited to only 11.4 sq ft of wind load at 45 feet
when free standing with a 70 MPH wind limitation and no ice.
(certainly they do have a healthy safety factor built into those
calculations.

Using the same calculations for a 65-G results in 8.9 cubic yards of
concrete and *roughly* 65 feet for an 11 sq ft wind load at 70 MPH and
no ice. This tower base is 7' 9" square, or 60 cubic feet for each
foot of depth. That is 2.2 cubic yards. So, 8.0/2.2 surprise 4 feet
deep again.

It turns out, in my guyed installation I also happened to have about 9
yards of concrete. 1.5 yards at the base and the rest evenly divided
between the guy anchors. I used slightly more concrete than required
in the base.

On thing emphasized by ROHN is there will be *no* welding of the
reinforcements/rerod in the concrete. All the reinforcements are free
floating. They have a whole set of specifications on those as well.

>all the rebar to install correctly and if it is like some Rohn tower there
>is a specification of some rocks and sand at the bottom of the hole.

6 inches of compacted sand and gravel for a drainage bed.

There is also a specification as to the soil in the sides of the hole
and requires soil samples to verify the soil is strong enough to meet
their specs. Otherwise more concrete is required and I don't have the
figures for that.

>Towers are not somthing youjust stick up and hope for the best.
>

At least nothing more than a small TV antenna tower installation.
This is probably the main reason the insurance companies don't want to
see towers bracketed to the end of a house, or to the eves. My
insurance carrier was willing to insure mine as long as there was no
direct connection to the house. (coax doesn't count)

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

1318. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 02:40:30 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <3t7e105595t8kgda85kjofhi00bo3cbbh5@4ax.com>
Source record: 101189

On Mon, 26 Jan 2004 14:23:10 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>Looks like they just have "built-in" gin or or is jin pole capability.

That was my impression. Kind of a nifty feature, but I'm not so sure
about the rest. I don't really like the idea of using square tubing
and no diagonals.

>Seems like you could do the same thing with a triangular section tower.

You can.

>Looks neat, though. Pretty husky too...however...

I'd have to see the data on the tubing and the quality of the welding.
>
>I wonder about the fact that there is no diagonal bracing. The horiz

I'd not be concerned about it as much in a guyed installation, but I'd
kinda like to see then in a free standing tower.

>bracing is quite heavy looking, but it looks like one giant parallelogram to
>me.

I'd also prefer to see a triangular tower cross section. As you say it
looks like a giant parallelogram in 3 dimensions. It may be plenty
strong, but "I'd think" the box cross section would be more
susceptible (less resistant) to torque than a triangular one.

> What would 'ole Octave Chanute say?
Roger Halstead (K8RI & ARRL life member)
(N833R, S♯ CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

1319. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 03:23:02 UTC
From: Bob <nospam@nowhere.nobody.forgetit.nil>
Message-ID: <zWFRb.4816$qU3.315640@news20.bellglobal.com>
Source record: 101192

Cecil Moore wrote:

> Bob wrote:
>
>> Sorry Cecil, violent crime is the lowest it's been in 15 years
>> according to surveys by Statistics Canada as well as many demographic
>> studies conducted by different universities.
>
>
> Is that the system where if a rape victim dies days after a rape,
> without regaining consciousness, it is reported as neither a rape
> nor a murder?

No sir, it's not. (and I was not trying to be confrontational either, so lets leave out the tangential speculation/hearsay please.)

So I suppose the original question remains unanswered:

Where did you read/hear crime is Canada is skyrocketing?
(It's a sincere question sir, stats published up here indicate it's been declining steadily for over a decade. If you're reading current reports of it being increasing at an alarming rate, where exactly are you getting that data?)

Thanks,
Bob (yet another non-violent law abiding Canadian :-)

1320. Re: Top Loading Butternut HF2V for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 03:25:36 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401271925.9ba30d0@posting.google.com>
Source record: 101190

"Dave Richardson" <Dave.Richardson@dshack.demon.co.uk> wrote in message
news:<bv5a6o$bu5$1$8300dec7@news.demon.co.uk>...
> Hi thanks for reading.
> I'm trying to maximise the DX capabilities of my new HF2V/160S on top band.
> Butternut recommend top loading wires, mainly for increasing the bandwidth
> but some say this reduces the effective height, leading to detrimental
> effects as a DX antenna?

Effective height? I don't see where they get that at...The height of
the vertical radiator is still the same. Top loading by wires is very
effective. It's much less lossy that inductive loading, and you will
need fewer coil turns to tune than without the top loading wires. But
there is another advantage. The current distribution is improved, and
will be much more constant along the vertical section, than without
the top loading.

> Also, mine sways around like a whip in the wind so I'd imagine the loading
> wires would have to be very slack?

I'd use them as extra guy wires, and tighten them up a bit to cut the
swaying.

> I dont particularly need extra bandwidth so am unsure whether to go to the
> bother?

The improved current distribution alone is worth it on 160m.
>
> Do you have any experience of top loading this or similar LF antennas?

I run one here. It's actually my 80m turnstile and 40 dipole fed with
a single coax feedline. On 160m, I short the coax together at the
shack, and feed as a top loaded vertical. Mine is appx 42 ft tall, and
uses four 60 ft loading wires, along with the two 32 ft wires. I've
modeled it, and the current distribution along the vertical section is
nearly constant, and it has an overhead null and pattern much the same
as a monopole. How does it work? I have a 1/4 wave inverted L about 45
ft up a tree. Only very early in the evening when the skip is straight
up and back down is it ever better than the top load antenna. "due to
the horizontal componant of the inv L" Most all other times, the top
load vertical is better. Usually by about 5-10 db on the average
radio's meter. I'm fairly sure the increase in performance is due to
the improved current distribution. Both antennas are the same appx
height. This also reduces ground losses a bit since the current level
near the ground is lower.
MK

1321. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 03:26:35 UTC
From: Minnie Bannister <GoonButNotForgotten@myob.net>
Message-ID: <101eav9prnvab15@corp.supernews.com>
Source record: 101191

That's interesting! A guy on the TowerTalk discussion group said that his insurance co. insisted that his AN Wireless tower must be attached to the house.

Alan AB2OS

On 01/27/04 09:32 pm Roger Halstead put fingers to keyboard and launched the following message into cyberspace:

>>Towers are not somthing youjust stick up and hope for the best.

> At least nothing more than a small TV antenna tower installation.
> This is probably the main reason the insurance companies don't want to
> see towers bracketed to the end of a house, or to the eves. My
> insurance carrier was willing to insure mine as long as there was no
> direct connection to the house. (coax doesn't count)

1322. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 03:46:36 UTC
From: spam@spam.com
Message-ID: <40172f9a.12634359@news.east.cox.net>
Source record: 101193

On Tue, 27 Jan 2004 10:15:57 +0100, "Massi"
<msignorini@calearotlc.com> wrote:

>Hello to everybody,
>first of all I say sorry for my bad English and for my really bad knowledge.
>I'm projecting an antenna for RFID (13.56 MHz) and I don't know if is
>possible to use a strip line with this frequency.
>I've seen that in some books there are some theory equations regarding GHz,
>but nothing about Mhz.
>Is the wavelenght too long compare to the dimension of a stripline?
>Thank you,
>
>Massimo
>
>
Most people just use a resonant loop and work with the (relatively)
low radiation efficiency. Most RFID applications are close range, so
the antenna's radiation pattern is of little concern. Many application
notes on the web describe calculating the inductance of the loop and
the tuning procedures necessary to achieve resonance at the desired Q
(which affects bandwidth).

Mark

1323. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 03:50:56 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <l6be10t6k277unml7kdds5eigan884gf90@4ax.com>
Source record: 101194
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

On Sun, 25 Jan 2004 15:03:59 +0100, "Thierry" <To answer me in private
use http://www.astrosurf.com/lombry/post.htm> wrote:

>Hi,
>
>Was your house/shack stroken by Thor's hammer, I mean a lightning recently ?
>I am interested in your experience...

The " system" gets hit about 3 times a year on average.
http://www.rogerhalstead.com/ham_files/tower.htm
>
>If your installaiton was damaged by a strike event, I would like to now if :

Rarely does the system suffer damage.

>- you used a central ground point bonded to an external grounding system, as
>well as the home ground.

The system uses a network, or grid of ground rods. 31 in the antenna
and radio system, plus 5 for the house electrical system. It's all
bonded together.

>- you left some gears switched on during the strike event

Gears as in aircrafts ...
Queens English Vs US English = Gear and aircraft<:-)) Over here
neither uses an s which is confusing to some.

>- you left the TX switched on and the coaxial plugged without protection

Rarely is the gear disconnected and I don't remember the last time I
disconnected a coax due to storms.

>- you installed or not lightning controllers in your electric distribution

I do not have any in the distribution panel.
I do have PolyPhasers for each coax mounted on a common bulkhead which
is tied to the ground system using bare #2 copper cable.

>panel
>- you had installed another protection
>- you swicthed off and unplugged all devices

Never bother.

>- you think that the energy came back via the grounding network (probably
>dut to a difference of potential in a device)

I lost one computer due to a pulse coming in on the telephone line.
Nothing spectacular.
>
>Tell me only in a few words what was the most probable cause of the
>accident.

The one telephone cable was hot to ground with enough voltage to fry
the solid state components.

>
>At last, if you master the subject, do you really think that a grounding
>system, as best it could be as the advice provided by PolyPhaser for
>example, will never protect you against a direct strike on your antenna or
>on the house lightning conductor

I have 31 ground rods in the radio station ground system tied (cad
welded) to over 600 feet of bare copper cable within 2 inches of the
surface.

All antennas are grounded either due to design, or a balun.

The devices appear to work as advertised.

>Why ?

I've lost one PolyPhaser with no damage to the rig that was hooked to
it. (Kenwood TM-V7A)

I had one lightening strike destroy a repeater antenna, blow out a
section of 5/8ths inch Heliax about 30 feet down from the antenna, as
well as blow off every bit of water proofing and all the silver
plating from every coax connector at the top of the tower. The only
damage was the input transistor in a two meter rig which was not the
rig connected to the antenna that was hit. That rig was not protected
by a PolyPhaser.

Lightening and the results of a strike are unpredictable, but with the
repeated strikes here, experience has shown me that apparently the
PolyPhasers do their job in a well designed system.

Last Summer I had a barrel connector (N type) short out in the coax
from one of the 75 meter slopers to the tower mounted antenna
selector. I'm assuming it was probably a near by strike, but I have no
way of knowing for sure.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>All this will help me to conclude the article dealing with this matter :
>http://www.astrosurf.com/lombry/qsl-lightning-protection.htm
>
>Thanks in advance
>
>NB. Answer preferably through these forums to please everybody.

>
>Thierry
>ON4SKY
>

1324. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 04:37:05 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40173d32_6@corp.newsgroups.com>
Source record: 101195

Bob wrote:
> So I suppose the original question remains unanswered:
> Where did you read/hear crime is Canada is skyrocketing?

For the nth time, I read it in the latest "First Freedom"
magazine. Please stop asking questions that I have already
answered multiple times and let's get back to antennas.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1325. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 05:18:28 UTC
From: Unclaimed Mysteries <theletter_k_andthenumeral_4_doh@unclaimedmysteries.net>
Message-ID: <ECHRb.1278$zG1.878@newsread3.news.atl.earthlink.net>
Source record: 101196
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Zoran Brlecic wrote:

> Stinger wrote:
>
>> You whined about RHF posting patriotic notes
>
>
> No, I simply felt that he clearly won the Biggest Patriot of the Year
> contest, and I offered to start another one, in the good old-fashioned

> beer-swillin',

You say that like it was a bad thing.

> cousin-marryin',

Let us pause to reflect that it is a crime for first cousins to marry in
Mississippi, but not in Massachusetts.

Confederate flag-carryin',

Howard? Howard Dean? Is that you?

> gun-totin',
> liberal-lynchin' way.
>

Forget about buying a vowel, FOR THE LURVE OF "BOB" buy a "G," PLEASSSSEE.

--
It Came From C. L. Smith's Unclaimed Mysteries.
http://www.unclaimedmysteries.net

1326. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 05:31:11 UTC
From: Unclaimed Mysteries <theletter_k_andthenumeral_4_doh@unclaimedmysteries.net>
Message-ID: <zOHRb.1295$zG1.438@newsread3.news.atl.earthlink.net>
Source record: 101197
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Stinger wrote:
> They are good people. I have a very good friend from Alabama. His two
> favorite football teams are Alabama and whoever's playing Auburn ;^)
>

HE HATE ME!

--
It Came From C. L. "28-23" Smith's Unclaimed Mysteries.
http://www.unclaimedmysteries.net

1327. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 05:46:24 UTC
From: Gray Shockley <gray-87a@cybercoffee.org>
Message-ID: <0001HW.BC3CA8D0001E72DA10BE84F0@news.giganews.com>
Source record: 101200
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

On Tue, 27 Jan 2004 23:31:11 -0600, Unclaimed Mysteries wrote
(in message <zOHRb.1295$zG1.438@newsread3.news.atl.earthlink.net>):

> Stinger wrote:
>> They are good people. I have a very good friend from Alabama. His two
>> favorite football teams are Alabama and whoever's playing Auburn ;^)
>>
>
> HE HATE ME!
>
>

I've got a pic of that but have no idea what the player's name actually is.

Do you know? Will you share? [grin]

/gray/

1328. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 05:47:59 UTC
From: Unclaimed Mysteries <theletter_k_andthenumeral_4_doh@unclaimedmysteries.net>
Message-ID: <j2IRb.28349$i4.10846@newsread1.news.atl.earthlink.net>
Source record: 101198
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Fab 5ive Freddy told me everybody's fly, "Zoran Brlecic"
<contact@newsserveronly.com> wrote in part:

>
> There is no such thing as a "group that is not protected by politically
> correct speech". It is a figment of your imagination and the result of
> mistaking paraliberals' bullshit for what liberals stand for. Sort of as
> if I assumed all conservatives were moral freaks like Ashcroft and
> Santorum.
>

You mean former senatator(tm) John Ashcroft (R- *MO*) and current
Senator Slick Rick Santorum, (R- *PA*), don't you? Pssst. Both states
are above the M-D line.

>
> Wait, I'm confused...

I agree with this part.

Corry
--
It Came From C. L. Smith's Unclaimed Mysteries.
http://www.unclaimedmysteries.net

1329. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 05:48:32 UTC
From: Unclaimed Mysteries <theletter_k_andthenumeral_4_doh@unclaimedmysteries.net>
Message-ID: <Q2IRb.28350$i4.8034@newsread1.news.atl.earthlink.net>
Source record: 101199
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Reg Edwards wrote:

> I am just a curious foreigner, ie., not a USA citizen.
>
> I've just had a quick speed-read down this thread.
>
> Are you all about to start another civil war?
>
> These things have a habit of spreading.
>

Too many Southerners are stubbornly clinging to a romantic false memory of a corrupt, incompetent oligarchy that utterly ruined the South. I speak of the Confederate States of America (1861-65), whose main accomplishment was to hoodwink an entire region into sending their sons off to fight for the oligarchy's immoral slave labor system. I call today's Confederate fetishists by their true name: suckers. The *REAL* rebels tried to put a stop to slavery. (The Underground Railroad had to start somewhere, did it not?) You never hear much about them though, because many were murdered, or had to flee the region.

Many Northerners are constantly claiming unearned automatic moral superiority because their side "won," while ignoring the hypocrisy in over a century of heaping scorn and slurs upon people while condemning them for bigotry.

Both sides are fscked.

73, Yerpal,
Corry K4DOH

--
It Came From C. L. Smith's Unclaimed Mysteries.
http://www.unclaimedmysteries.net

1330. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 06:05:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40175208_5@corp.newsgroups.com>
Source record: 101202

Bob wrote:
> Where did you read/hear crime is Canada is skyrocketing?

Canadians Resisting Tough New Gun Law
By Colin Nickerson, The Boston Globe,
Published Wednesday, January 10, 2001, in the Miami Herald

"But even the (Canadian) federal government concedes that a minimum of 400,000 of the country's estimated 2.2 million gun owners have refused to comply -- a shocking figure in a society where respect for the law is second nature. And the real tally of noncompliers may be much higher: Gun groups count six million privately owned rifles and shotguns in Canada, meaning that millions of citizens may be defying the law."

If millions of citizens choosing to become criminals is not
a skyrocketing crime rate, I don't know what is.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1331. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 06:07:42 UTC
From: Unclaimed Mysteries <theletter_k_andthenumeral_4_doh@unclaimedmysteries.net>
Message-ID: <OkIRb.28356$i4.22395@newsread1.news.atl.earthlink.net>
Source record: 101201
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Top postin' "w4jle" <"W4JLE(remove this to reply)"@pbtcomm.net> was
strip-searched in Marfa, Texas for writing in part:

> Jane said "You mean all those people that said it was about slavery are
> wrong?"
>
> Spot said "You got it Jane"
>

Read the declarations of succession for say, Mississippi and Georgia for
the most florid examples of why they felt they had to break away from
the Union.

http://extlab1.entnem.ufl.edu/olustee/related/secession.htm

"Our position is thoroughly identified with the institution of slavery--
the greatest material interest of the world. Its labor supplies the
product which constitutes by far the largest and most important portions
of commerce of the earth. These products are peculiar to the climate
verging on the tropical regions, and by an imperious law of nature, none
but the black race can bear exposure to the tropical sun. These products
have become necessities of the world, and a blow at slavery is a blow at
commerce and civilization. That blow has been long aimed at the
institution, and was at the point of reaching its consummation. There
was no choice left us but submission to the mandates of abolition, or a
dissolution of the Union, whose principles had been subverted to work
out our ruin." (Mississippi)

The Confederates may have been corrupt and decadent scoundrels, but on
this matter I trust their OWN WORDS more than your bad revisonist comedy
stylings.

73 Corry K4DOH
--
It Came From C. L. Smith's Unclaimed Mysteries.
http://www.unclaimedmysteries.net

1332. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 06:32:47 UTC
From: tdonaly@aol.com
Message-ID: <20040128013247.25908.00000634@mb-m23.aol.com>
Source record: 101203

Richard wrote,
>
>Hi Fellows,
>
>I dunno. When I read it, it looked like a reference to graphical
>analysis or the projection of a point that represents a mean within a
>surface area (which, again, harkens back to the "sinusoidal" current
>distribution curve).
>
>73's
>Richard Clark, KB7QHC
>

Hi Richard,
it would be interesting, and very useful, too, if it were
possible to characterize radiation resistance this way. I was hoping
Wes would enlighten us.
73,
Tom Donaly, KA6RUH

1333. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 06:57:12 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <s5ne10hl5il0rii4cgkah3vd091ba2bckq@4ax.com>
Source record: 101205

On Tue, 27 Jan 2004 22:26:35 -0500, Minnie Bannister
<GoonButNotForgotten@myob.net> wrote:

>That's interesting! A guy on the TowerTalk discussion group said that
>his insurance co. insisted that his AN Wireless tower must be attached
>to the house.

I find that surprising as my current home owners policy (State Farm)
and the previous company (who I can't remember right now) were very
specific. It attaches to the house and they wouldn't insure it.

I signed up for tower talk, but it was a long time back.
Now if I can only remember how to get there...

Roger Halstead (K8RI & ARRL life member)
(N833R, S/N CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>Alan AB2OS
>
>
>On 01/27/04 09:32 pm Roger Halstead put fingers to keyboard and launched
>the following message into cyberspace:
>
>>>Towers are not somthing youjust stick up and hope for the best.
>
>> At least nothing more than a small TV antenna tower installation.
>> This is probably the main reason the insurance companies don't want to
>> see towers bracketed to the end of a house, or to the eves. My
>> insurance carrier was willing to insure mine as long as there was no
>> direct connection to the house. (coax doesn't count)

1334. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 07:00:22 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <Mbednej_3OZhwIrdRVn-sQ@comcast.com>
Source record: 101204

They are breaking the law, yes but I see a bit of distinction here between these people and common criminals. The criminal actively commits an illegal act. These people retaining their firearms did not commit any act. They were declared criminals without any action of their own.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:40175208_5@corp.newsgroups.com...
> Bob wrote:
> > Where did you read/hear crime is Canada is skyrocketing?
>
> Canadians Resisting Tough New Gun Law
> By Colin Nickerson, The Boston Globe,
> Published Wednesday, January 10, 2001, in the Miami Herald
>
> "But even the (Canadian) federal government concedes that a minimum
> of 400,000 of the country's estimated 2.2 million gun owners have
> refused to comply -- a shocking figure in a society where respect
> for the law is second nature. And the real tally of noncompliers
> may be much higher: Gun groups count six million privately owned
> rifles and shotguns in Canada, meaning that millions of citizens
> may be defying the law."
>
> If millions of citizens choosing to become criminals is not
> a skyrocketing crime rate, I don't know what is.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1335. Re: Top Loading Butternut HF2V for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 10:37:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bv83do$68q$1@hercules.btinternet.com>
Source record: 101206

Changing the current distribution and changing the effective height are one and the same thing.

1336. NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 11:39:57 UTC
From: mlori@ieee.org
Message-ID: <ddff27eb.0401280339.5276dbea@posting.google.com>
Source record: 101207

Hi all,
Is there anybody with some experience in MF antenna modelling with
ground effect included (surface wave/space wave) etc. ?
I have the need to find out if the NEC4 is able to modellize this type
of antenna in a general environment and with which performance.
Otherwise, I will have to find out alternative ways (FEM/...).

Thanks in advance for any suggestion

Best regards

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Dr. Maurizio Lori
Antenna System Design
via P.Anfossi,15 00124 Rome Italy
Tel. + Fax: +39 06 50915496 - Cell. +39 328 1555179
mlori_asd@yahoo.it,mlori@ieee.org
>>

1337. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 14:15:37 UTC
From: Nelson <tstevens@cogeco.ca>
Message-ID: <XAPRb.360$_62.114@read1.cgocable.net>
Source record: 101208

Don't you guys know how to start a new feed or do you guys always piggy-back
on others, no original feeds in this newsfeed.
"Jim Kelley" <jwkelley@uci.edu> wrote in message
news:401703E4.2BFAE08A@uci.edu...
>
>
> Dave Shrader wrote:
> >
> > Cecil was nominated for the Humblest-Man-of-the-Year award in 2003.
> >
> > But, the award's chairman revoked it when Cecil held out his jacket's
> > lapel so it could be pinned on! :-)
> >
> > DD
>
> What actually happened is Cecil became impatient with the ceremony,
> reached up, grabbed the pin, and put it on himself.
>
> 73, jk
>
> > Cecil Moore wrote:
> >
> > > Steve Nosko wrote:
> > > I know everything except how to be humble.
> > >
> > > "Oh Lord, it's hard to be humble,
> > > when you're perfect in every way ..."

1338. Re: Distance between transmit and receive antennas on 160 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 14:38:39 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40167274_3@newsfeed.slurp.net>
Source record: 101209

The theoretical gains far outweigh any drawbacks. If you can't get any
further away than 50 ft., then go with it. I seriously doubt you would
detect any difference in transmit pattern. If you do, you can always take
the loop down...

- Mike KI6PR
El Rancho R.F., CA

"Metalhead" wrote

> I am thinking about building a small receiving loop for 160 meters. I
> can probably only get the loop about 50 feet or so away from my
> transmitting antenna (inverted L.) My questions are:
>
> 1) Is this spacing to close?
> 2) Does spacing this close effect the radiation pattern for the
> transmitting Inverted L?
> 3) Is the only drawback to this close spacing a nosier receiving
> loop?
>
> Would just like some opinions before I go through the trouble of
> building the loop. The particular loop design I am looking at is the
> KC2TX receiving loop.
>
> Thanks for any opinions, positive or negative.
>
> Burch
> K4QXX
>

1339. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 14:45:46 UTC
From: Andy Cogswell <shorecogs@comcastREMOVETHIS.com>
Message-ID: <IOGdnVPxuuq6VordRVn_iw@comcast.com>
Source record: 101210

Gotta love a troll that doesn't even get basic facts right!

1. The answers for all of the written amateur radio tests are readily
available for download (legally).
2. The Advanced class doesn't exist anymore.

"Nelson" <tstevens@cogeco.ca> wrote in message
news:NLhRb.176$_62.87@read1.cgocable.net...
> Is there such a thing, some guy in El Gorah, Egypt a Yank no less tried to
> sell my friend a copy of this, ok so him and I were a little game, we
bought
> the thing from him, guess its seems to be all the right answers for the
> Advanced test, so my question is now how many of these things are there
out
> there, and how guys are for real, not some two bit cow-boy that knows
> nothing about nothing. What happens when we need those guys in a emergency
> and they don't know crap!!.
>
> Guys if you know of other cheat sheets out there, please send them this
way,
> I will do my level best to get them out.
>
>
> Nelson Stevens
>
>
>

1340. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 15:08:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4017d123_4@corp.newsgroups.com>
Source record: 101211

CW wrote:
> They are breaking the law, yes but I see a bit of distinction here between
> these people and common criminals. The criminal actively commits an illegal
> act. These people retaining their firearms did not commit any act. They were
> declared criminals without any action of their own.

There are crimes of commission and crimes of omission. If a law requires action of law-abiding citizens, then inaction is a crime. The Canadian gun laws caused the crime rate in Canada to skyrocket.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1341. Re: Top Loading Butternut HF2V for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 15:12:02 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4017d203$1_4@corp.newsgroups.com>
Source record: 101212

Reg Edwards wrote:
> Changing the current distribution and changing the effective height are one
> and the same thing.

I can lower my angle of maximum radiation by raising the height of
my low 75m dipole. Is there a way for me to accomplish the same thing
by changing the current distribution?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1342. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 15:14:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4017d28e_4@corp.newsgroups.com>
Source record: 101213

Nelson wrote:
> Don't you guys know how to start a new feed or do you guys always piggy-back
> on others, no original feeds in this newsfeed.

Seems they know how to start a new feeding frenzy. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1343. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 15:57:40 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <8qmf10dhbmcav6uc18ll4734pua3p6fi4q@4ax.com>
Source record: 101214

On Tue, 27 Jan 2004 09:21:48 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Zoran Brlecic wrote:
>> No, it isn't. And, btw, red herring.
>
>In one of those anti-gun countries, a crime is not reported as
>an official crime until someone is convicted for the crime.
>Unsolved crimes still on the books are not reported to the
>outside world - bad for business.

That is how George Bush is "reducing" pollution in his Clear Skies
initiative -- carbon dioxide is no longer considered a pollutant.

Bob
k5qwg

1344. Re: Top Loading Butternut HF2V for 160m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 16:07:14 UTC
From: richardharrison@webtv.net
Message-ID: <16989-4017DE32-13@storefull-3258.bay.webtv.net>
Source record: 101215

Reg, G4FGQ wrote:
"Changing the current distribution and changing the effective height are one and the same thing."

Could be. Antennas are reciprocal. A common definition of "effective height" for receiving antennas is simply the ratio of volts out of the antenna versus the field volts per meter acting upon the antenna. Constants provide effective height in feet, meters, or in the units of your choice.

Best regards, Richard Harrison, KB5WZI

1345. Re: Distance between transmit and receive antennas on 160 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 17:09:38 UTC
From: richardharrison@webtv.net
Message-ID: <15756-4017ECD2-49@storefull-3252.bay.webtv.net>
Source record: 101216

Metalhead wrote:
"I am thinking about building a small receiving loop for 160 meters. I can probably only get the loop about 50 feet or so away from my transmitting antenna (inverted L)."

That`s only about 15 meters of separation and the wavelength is 160 meters. The loop is in the near field.

Suggestion: Change the L to a T. This balances out horizontal radiation. Performance of the T is at least as good as the L, and the radiation from a balanced T is cross-polarized with the horizontal loop. Symmetry is important here. A horizontally polarized receiving antenna rejects ground-wave propagated noise as there is no ground wave propagation of horizontally polarized energy. The horizontally polarized loop is a good choice for sky wave reflected signals as these are reflected from the ionosphere with equal horizontal and vertical signal components, regardless of the polarization of signal incident upon the ionosphere.

Just keep the horizontal portion of the L, and tap it at its center. Try to keep the vertical portion as vertical as possible to maintain balance between halves of the capacitive hat which now caps the vertical antenna.

Best regards, Richard Harrison, KB5WZI

1346. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 17:24:39 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <61sf10hv8g2k5msa1siugmckni0nusgnjr@4ax.com>
Source record: 101217

On 28 Jan 2004 06:32:47 GMT, tdonaly@aol.com (Tdonaly) wrote:

|Richard wrote,
|>
|>Hi Fellows,
|>
|>I dunno. When I read it, it looked like a reference to graphical
|>analysis or the projection of a point that represents a mean within a
|>surface area (which, again, harkens back to the "sinusoidal" current
|>distribution curve).
|>
|>73's
|>Richard Clark, KB7QHC
|>
|
|Hi Richard,
| it would be interesting, and very useful, too, if it were
|possible to characterize radiation resistance this way. I was hoping
|Wes would enlighten us.

Let's let Hansen do that.

http://www.qsl.net/n7ws/HansenPaper.pdf

1347. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 17:52:55 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv8t0v$23d$1@newshost.mot.com>
Source record: 101120

This is interesting, Dave.
They only give dimensions for the 2M.

I assume that the #12 wire wound around the long pole is the gamma capacitor. I also wonder what the sun & time does to the insulation on this wire.

In this version, the SO-239 is exposed to the WX as is the PL-259 screwed on to it. In the more usual "run-the-coax-up-to-the-feed-point-and-solder-or-clamp-it-on" method exposes the coax end to the Wx - allowing seepage into the coax.

I am trying to figure out a good way to get the feed line completely INTERNAL when using the "tap-the-coax-up-a-ways-on-the-matching-section" feed method. This is so the feed line and the connector (if needed) is not exposed to the Wx.

Sumptin' like this:
Drill a hole in the long pole, facing the short pole, where the feed line will attach. However, if you try to solder the shield here and just extend the center insulation and center conductor to the short pole, water can enter the coax. Trying to put a SO239 or something smaller (and probably an elbow version), inside the long pole at this point (to take advantage of its "sealed" construction) is difficult. You could put a "thru joint" right below that point to improve access for soldering such a connector -- that may do it. Or you could use a pipe "T" with the lone opening facing the short pole and do something in there to use an already sealed "something" to go from the coax (inside the pipe) to the other side of the matching section.
Any Ideas?

"Dave Platt" <dplatt@radagast.org> wrote in message
news:101e3il88sjopb1@corp.supernews.com...
> >[...snipped...]
> These J-poles use a somewhat uncommon feed technique - the SO-259 is
> attached near the center of the crosspiece and grounded there, and the
> short side of the matching section is fed through a bent-wire
> transmission line and gamma match.
>
> http://www.pcarc.net/jpole.pdf shows the construction, including the
> crossbrace.
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

1348. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 17:59:22 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bv8td3$2k3$1@newshost.mot.com>
Source record: 101122

I thought that was the best part of the scam!

Pretend you got scamed...
By someone selling Advanced test answers...
This means that the pretend scam, that you made up, is supposed to show
how stupid you are in *two* ways.
1) you are trying to get the cheat sheet....and
2) you are too stupid to know that there is no Advanced test.

I guess that makes it a triply recursive scam, no?

--
Steve N, K,9;d, c. i My email has no u's.
"Andy Cogswell" <shorecogs@comcastREMOVETHIS.com> wrote in message
news:IOGdnVPxuuq6VordRVn_iw@comcast.com...
> Gotta love a troll that doesn't even get basic facts right!
>
> 1. The answers for all of the written amateur radio tests are readily
> available for download (legally).
> 2. The Advanced class doesn't exist anymore.
>
> "Nelson" <tstevens@cogeco.ca> wrote in message
> news:NLhRb.176$_62.87@read1.cgocable.net...
> > Is there such a thing, some guy in El Gorah, Egypt a Yank no less tried
to
> > sell my friend a copy of this, ok so him and I were a little game, we
> bought
> > the thing from him, guess its seems to be all the right answers for the
> > Advanced test, so my question is now how many of these things are there
> out
> > there, and how guys are for real, not some two bit cow-boy that knows
> > nothing about nothing. What happens when we need those guys in a
emergency
> > and they don't know crap!!.
> >
> > Guys if you know of other cheat sheets out there, please send them this
> way,
> > I will do my level best to get them out.
> >
> >
> > Nelson Stevens
> >
> >
> >
>

>

1349. looking for help in building a transmission line.... and antenna...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 18:04:10 UTC
From: larry <larya@rogers.com>
Message-ID: <uQSRb.263$xOc1.29@twister01.bloor.is.net.cable.rogers.com>
Source record: 101218

Greetings

Well I find myself to be in a rather strange delema....

A brief history to help you help me...

I was licenced in 1964...I was 16. My ham station was put in my basement.. My first antenna, a random wire, was run along the basement ceiling, out a basement window frame, up to the eavestrough and down the backyard to the closeline pole...About 75 feet in length...

Later, about 1972, my first 2 meter fm station the coax, rg58 or 8, when along the ceiling, through a hole in the concrete of the house, up a tower and to a 5 element beam...

More recently my ham station has moved up to the main floor. My 2 meter radio is now about 6 or 7 feet above ground. I stuck a 1/4 wave length of wire in the so239 output connector ic275a, using a right angle adapter, and, with the mike cable extended to form one leg of a signle leg ground plane, managed to trip a local repeater....

Now here is my situation...I would like to build a full 1/4 wave groundplane or something similar directly above the radio but, in order to have radials that don't pook me in the face, I will need to raise the antenna up about 2 or 3 feet. I could use coax but for that short of a run?...

Is it possible to build a length of air dialectric coax (I am wondering what a perfect length of coax is made of between the center conductor and braid and how long it would have to be), 50 ohm that is about 2 to 3 feel long?

Next question would be.. how to tune it...

I am guessing that it is about 5 feet from the radio to the ceiling...

Any thoughts?

Larry ve3fxq

1350. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 18:04:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4017fa7a$1_3@corp.newsgroups.com>
Source record: 101119

Bob Miller wrote:
> -- carbon dioxide is no longer considered a pollutant.

Well, that's reasonable, since all animals create carbon
dioxide and plants need it to survive.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1351. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 18:15:36 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4017FC48.63EC52E@uci.edu>
Source record: 101123

Nelson wrote:
>
> Don't you guys know how to start a new feed or do you guys always piggy-back
> on others, no original feeds in this newsfeed.

Ummmmm, feed.

Homer Simpson

1352. Re: looking for help in building a transmission line.... and antenna...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 18:26:24 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4017FED0.F0BB967D@cwis.net>
Source record: 101121

Larry,
Short lengths of coax work as well as long ones do.
Unless you just want to 'play' with home brewing some
coax, use commercially made stuff.

1353. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 18:46:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <470g10hg25iqhehktg3v937tohb7i1v5hm@4ax.com>
Source record: 101124

On 28 Jan 2004 03:39:57 -0800, mlori@ieee.org (Maurizio) wrote:

>Hi all,
>Is there anybody with some experience in MF antenna modelling with
>ground effect included (surface wave/space wave) etc. ?
>I have the need to find out if the NEC4 is able to modellize this type
>of antenna in a general environment and with which performance.
>Otherwise, I will have to find out alternative ways (FEM/...).
>
>Thanks in advance for any suggestion
>
>
>Best regards
>

Hi Maurizio,

Antenna modelers (NEC engines) render far, far field results. The
effect of ground is considered only for
1. its impact on feedpoint Z;
2. equivalent launch angle (from the perspective of very far, or DX,
receivers).

What you describe as your need sounds more like the province of
propagation modelers. There are some add-on packages that incorporate
with antenna modelers to allow for a variety of terrains; but even
those, I think, still relate to the very far, DX, receivers.

Even the propagation modelers (like VOACAP and VOAAREA) are tailored
for HF and the far, far field. Our references from the FCC for MF
broadcast stations stands as a resource. Those references go back
many years and little has advanced the science as it has served the
industry very well.

73's
Richard Clark, KB7QHC

1354. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 19:30:05 UTC
From: dplatt@radagast.org
Message-ID: <101g3dt5js5kg57@corp.supernews.com>
Source record: 101125

In article <bv8t0v$23d$1@newshost.mot.com>,
Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote:

>This is interesting, Dave.
> They only give dimensions for the 2M.
>
>I assume that the #12 wire wound around the long pole is the gamma
>capacitor. I also wonder what the sun & time does to the insulation on this
>wire.

Correct. The length and position of the wire form the usual
gamma-match transmission line out to the correct tap position. The
insulated wire wrapped around the pole forms the gamma match capacitor
and cancels out the inductance of the transmission-line stub.

The ones I've seen made by the Legion post all use commonly-available
insulated household wire (I think it's THNN insulation). This stuff
seems to be reasonably stable in sunlight, although not infinitely so.
Using the black variety might tend to prolong its life.

Rotting of the insulation on the exposed portions of the wire ought
not to matter. Only the insulation in the gamma-match capacitor area
is performing a functional task, and this has been shielded from
sunlight by the heatshrink tubing around it.

I've never seen one of these antennas fail due to deterioration of the
insulation. Their weak points seem to be the acrylic insulator, and
the set-screw arrangement used to fasten the rods to the base. The
commonest failure mode for these antennas seems to be a combination of
a deterioration of the insulator (sunlight) and a loosening of the
set-screw fastening (possibly due to metal creep, probably due to
mechanical stresses from the rods being wobbled back and forth by wind
pressure). Eventually, the insulator cracks and the rods flop around,
and your match and SWR to all to heck.

It ought to be possible to build a more robust antenna of this sort.
Sticking with aluminum, one might use one of the aluminum-soldering
kits on the market instead of (or in addition to) the set-screws. Or,
one could use brass rods and a brass crossplate, and ordinary plumbing
solder. Even a copper-pipe variety might be possible, although the
gamma match would probably have to be significantly redesigned to cope
with the larger diameter.

>In this version, the SO-239 is exposed to the WX as is the PL-259 screwed on
>to it. In the more usual
>"run-the-coax-up-to-the-feed-point-and-solder-or-clamp-it-on" method exposes

>the coax end to the Wx - allowing seepage into the coax.

Yup. On my Copper Cactus J-pole I found it necessary to glop the end
of the coax, and all of the wiring leading to the feedpoint
connections _very_ carefully with outdoor-rated black silicone
sealant. The first time I put it up, I missed a spot on the 440 coax,
and ended up with water in my coax and moss growing in the N connector
at the bottom (as Dave Barry says, "I Am Not Making This Up!").

>I am trying to figure out a good way to get the feed line completely
>INTERNAL when using the "tap-the-coax-up-a-ways-on-the-matching-section"
>feed method. This is so the feed line and the connector (if needed) is
>not exposed to the Wx.

http://www.antennex.com/hws/ws1002/sperrtof.pdf is one possibility.
In its essence, it's a J-pole with the matching section being
implemented coaxially rather than as a stub on one side, and the
attachments are internal. The insulating disk at the top ought to be
amenable to a complete waterproofing... a bit of epoxy would do the
trick.

I'm tempted to try making one, if I can figure out how to mill/lathe
the necessary discs.

>Sumptin' like this:
>Drill a hole in the long pole, facing the short pole, where the feed line
>will attach. However, if you try to solder the shield here and just extend
>the center insulation and center conductor to the short pole, water can
>enter the coax. Trying to put a SO239 or something smaller (and probably an
>elbow version), inside the long pole at this point (to take advantage of its
>"sealed" construction) is difficult. You could put a "thru joint" right
>below that point to improve access for soldering such a connector -- that
>may do it. Or you could use a pipe "T" with the lone opening facing the
>short pole and do something in there to use an already sealed "something" to
>go from the coax (inside the pipe) to the other side of the matching
>section.

>Any Ideas?

Well, I've seen plans for J-poles which mount the socket on one pole
(combination of a screw, and solder), and then run a solid wire across
the other pole to make the feedpoint attachment. With UHF connectors
this is still potentially leaky. However, if you were to use an N
connector at this point, you'd end up with a connection which is far
easier to keep dry, thanks to the internal gaskets.

I use N connectors for all of my outdoor feedlines and antennas...
they're a bit more expensive than UHF, but I like 'em a lot better.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will

boycott any company which has the gall to send me such ads!

1355. An article for my personal website ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 19:41:46 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <4018107e_1@news.vo.lu>
Source record: 101126
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,uk.radio.amateur

Hi OM, YL and SWL,

This is the first time since the publishing of my website four years ago that I appeal to your collaboration.

My personal website LUXORION is devoted to amateur astronomy and hamradio, this last section growing quite fast, with about 120 pages today heavily illustrated, representing about 10% of my web.
See at http://www.astrosurf.com/lombry/menu-qsl.htm

Since 2000 this site is read by about 110 people every day, not only amateurs (young and old), but also private companies and scientists and it is referenced in more than 100 amateurs, clubs and pro websites, small or large. So be sure that your information will be read.
And not only in english, but also in other languages, as I include a translation module in the menu to extend the circulation of the information.
At last this site is updated quasi daily.

Several amateurs and professionals too, scientific and CEO of private companies, have already participated in the French pages of my site or helped me to complete some technical page about hamradio. LUXORION is however not a media for adverstisings or a marketing place. It stands off any political or commercial activity.

If some of you have written some articles covering in depth and seriously any amateur radio subject - DX, equipment, software, activity, BCL, SWL, theory, etc - (there is no maximum number of pages or MB), and are interested in publishing this information on my website, feel free to send me a comment. Of course any information published will stay under your name with a link to your website or email if you like, as I alway do.

File formats accepted are htm if you like or any Word compatible format (doc, etc). Pictures in uncompressed JPG or quality GIF (I can convert TIF too).

Your support is welcome.

Thanks in advance

73
Thierry
ON4SKY, LX3SKY
http://www.astrosurf.com/lombry

1356. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 19:48:06 UTC
From: Laurie <laurie_h@despammed.com>
Message-ID: <4018126d$0$13349$cc9e4d1f@news-text.dial.pipex.com>
Source record: 101127
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

Roger Halstead wrote:
> The " system" gets hit about 3 times a year on average.
> http://www.rogerhalstead.com/ham_files/tower.htm

Interesting site. However the links to your larger pictures are all broken.
They refer to files on your local PC eg:
file:///C:/Documents%20and%20Settings/Administrator.ROGER2.000/My%20Documents/My%20Webs/ham_files/tower8.htm

--
73 Laurie - G6ISY

1357. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 22:15:04 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <q1dg105qt0nbet28po1msf50elae1cu2qv@4ax.com>
Source record: 101128

On Wed, 28 Jan 2004 12:04:42 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Bob Miller wrote:
>> -- carbon dioxide is no longer considered a pollutant.
>
>Well, that's reasonable, since all animals create carbon
>dioxide and plants need it to survive.

Maybe it was carbon monoxide -- some kind of carbon...

bob
k5qwg

1358. Re: Automotive Diversity Reception problems- 98 Corvette

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 22:19:48 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Ic2dnVUNpOkUqIXd4p2dnA@comcast.com>
Source record: 101129
Cross-posted to: rec.radio.amateur.antenna,rec.autos.tech

Have you considered Sirius or XM satellite radio?

Tam/WB2TT

1359. Quick one on G5RV (again)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-28 23:21:43 UTC
From: Volker Kerkhoff <volker@kadira-net.com>
Message-ID: <pmgg10l2fnr36r46jbrnfaprsv47nhd9dv@4ax.com>
Source record: 101130

Hi,

Just to confirm an answer I got elsewhere, if I mount a G5RV as a quadrant, it will normally not effect antenna behavior save a change of the directional pattern, having two main lobes in the middle of the legs of the "L" (when seen from top) and exactly opposite. I am aware I am going to need a transmatch for this type of antenna anyways, but my neighbors will possibly happier with some wire dipole on the roof than with a vertical, or a mast / tower with yagis. Besides, it looks less harrassing to them, in view of al the electro-smog paranoia around in Spain lately...

Thanks in advance,

Volker (Soon to be EC3/EB3)

1360. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 00:03:45 UTC
From: tdonaly@aol.com
Message-ID: <20040128190345.22937.00001144@mb-m04.aol.com>
Source record: 101132

>
Wes wrote,
>On 28 Jan 2004 06:32:47 GMT, tdonaly@aol.com (Tdonaly) wrote:
>
>|Richard wrote,
>|>
>|>Hi Fellows,
>|>
>|>I dunno. When I read it, it looked like a reference to graphical
>|>analysis or the projection of a point that represents a mean within a
>|>surface area (which, again, harkens back to the "sinusoidal" current
>|>distribution curve).
>|>
>|>73's
>|>Richard Clark, KB7QHC
>|>
>|
>|Hi Richard,
>| it would be interesting, and very useful, too, if it were
>|possible to characterize radiation resistance this way. I was hoping
>|Wes would enlighten us.
>
>Let's let Hansen do that.
>
>http://www.qsl.net/n7ws/HansenPaper.pdf
>
O.k., so he is writing about a moment method analysis. I hope Yuri and
Cecil read this along with your results, Wes. Cecil can't possibly argue
with this... I take that back, Cecil could argue with the Devil about how
hot hell should be, so maybe this won't stop him after all.
73,
Tom Donaly, KA6RUH

1361. Re: Balun on various bands

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 00:16:55 UTC
From: jgboyles@aol.com
Message-ID: <20040128191655.22644.00000917@mb-m18.aol.com>
Source record: 101134

>Thanks for the advice...I'll just be running 100watts from a TS-430 to a
>coaxline fed Model 1:1 balun by W2AU which is sold commercially.

Hi, I think it is W2DU, I use the design, have no problems.
73 Gary N4AST

1362. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 00:37:48 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <5K-dnc9UIZ3C1YXdRVn-hw@ctc.net>
Source record: 101131

.
>
> I find that surprising as my current home owners policy (State Farm)
> and the previous company (who I can't remember right now) were very
> specific. It attaches to the house and they wouldn't insure it.
>

That is what my State Farm agent found out. I have cars with them and
decided to insure the house. They turned me down because the 40 foot tower
was attached to the house.
I hope to try again when I move soon and see what hapens with a tower that
is not attached.

1363. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 00:54:22 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <VbadnV4tJ90vxIXd4p2dnA@comcast.com>
Source record: 101135

Typical envirowako. Doesn't even know what it is but its got "one of those scientific names" so it must be bad. Yes, carbon dioxide is bad. You exhale it when you breath. Do your part, help the world, quit breathing.

"Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message

> Maybe it was carbon monoxide -- some kind of carbon...
>
> bob
> k5qwg
>
>

1364. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 01:02:09 UTC
From: tdonaly@aol.com
Message-ID: <20040128200209.22937.00001162@mb-m04.aol.com>
Source record: 101136

CW wrote,
>
>Typical envirowako. Doesn't even know what it is but its got "one of those
>scientific names" so it must be bad. Yes, carbon dioxide is bad. You exhale
>it when you breath. Do your part, help the world, quit breathing.
>
>
>"Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
>
>> Maybe it was carbon monoxide -- some kind of carbon...
>>
>> bob
>> k5qwg
>>
>

It's supposed to make the earth warmer. I'm for
that.
73,
Tom Donaly, KA6RUH

1365. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 01:18:13 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <0tmg10t7p17lv09niel9n6h4ve1pii3hc6@4ax.com>
Source record: 101137

On 29 Jan 2004 00:03:45 GMT, tdonaly@aol.com (Tdonaly) wrote:

|>
|O.k., so he is writing about a moment method analysis. I hope Yuri and
|Cecil read this along with your results, Wes. Cecil can't possibly argue
|with this... I take that back, Cecil could argue with the Devil about how
|hot hell should be, so maybe this won't stop him after all.

Hi Tom,

Cecil and Yuri have been uncharacteristically silent, at least about
this thread since I started it. Frankly I expected some flak.

Regards,

Wes

1366. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 03:19:35 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040128221935.04554.00000945@mb-m10.aol.com>
Source record: 101138

>
>Cecil and Yuri have been uncharacteristically silent, at least about
>this thread since I started it. Frankly I expected some flak.
>
>Regards,
>
>Wes
>
>

Howdy anteneers,
I have been characteristically absent from the freezing NE, enjoying Bahama Mammas near Nassau, shaking off cold or flu, operating as C6AYB in CQ 160m contest (beat world Low Power world record) with IC706 and piece of wire in the form of Half Sloper from the balcony down to a palm tree and getting some badly needed tan for my sickly pale complexion. Sorry for missing some of the coil battles.

As far as flak, I glanced over the mentioned paper and deducted that relates to some calculated "facts" rather than measured. So far I have concluded that we have reached point of (dis)agreement between two sides, and as I mentioned, there is not much point in arguing. W8JI tried to prove his "truth," only to measure differences in coil current (not showing details about the setup) and while insisting he is right, proving that he is wrong. As I mentioned, weather permitting, I will do more measurements, describe them in an article. In the mean time, if anyone else made the measurements, please describe them along with the description of setup (length of radiator parts, placements of coil, frequencies, etc.) Otherwise, you have to patient until I get around doing it, I have life and priorities outside of NG.

I started reading Marc Seifer book "Wizard" - The life and times of Nikola Tesla, fascinating insight and chronology of this greatest engineering genius and the hurdles he had to overcome from the flat earth society.

73 Yuri, K3BU

1367. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 03:51:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4018841f_8@corp.newsgroups.com>
Source record: 101139

Tdonaly wrote:
> Cecil reads all the inflammatory, right wing, gun magazines and
> believes them.

The latest was actually a left-wing newspaper criticizing the half
a million right-wing Canadians who refuse to register their guns.
That's half a million new crimes which, when prosecuted, will send
the Canadian crime rate out of sight.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1368. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 03:56:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4018852f$1_8@corp.newsgroups.com>
Source record: 101140

Bob Miller wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>Bob Miller wrote:
>>>-- carbon dioxide is no longer considered a pollutant.
>>
>>Well, that's reasonable, since all animals create carbon
>>dioxide and plants need it to survive.
>
> Maybe it was carbon monoxide -- some kind of carbon...

Nope, it was carbon dioxide, one of the "greenhouse" gasses.
Did you see Algore standing out in the coldest weather in
25 years in New York City the other day warning everyone
about global warming?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1369. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 03:58:22 UTC
From: Bob <nospam@nowhere.nobody.forgetit.nil>
Message-ID: <Ix%Rb.57195$Kg6.596160@news20.bellglobal.com>
Source record: 101143

Cecil Moore wrote:
> Bob wrote:
>
>> So I suppose the original question remains unanswered:
>> Where did you read/hear crime is Canada is skyrocketing?
>
>
> For the nth time, I read it in the latest "First Freedom"
> magazine. Please stop asking questions that I have already
> answered multiple times and let's get back to antennas.

I see, that's published by the NRA. Now I'm not suggesting that everything published by the NRA is heavily biased, but it's reasonable to suggest there IS bias in their editorial agenda.

(now before you get all up in arms (hey, is that a pun?) defending the NRA, most special interest group publications are heavily biased to promote their opinions and values, or lack of them, depending on the origin)

So a few years ago, I read in a 'grocery-checkout-line-tabloid' about some lady in Maine who gave birth to a harp seal pup, but it's fair to say that report is not likely accurate. So, as you seem to be well informed in technical matters - clearly from reading various material from numerous sources - perhaps it would be prudent to research your geopolitical demographic information before promoting an opinion based solely on the line given from one source. To present it as your own opinion or to side with one source before verifying and validating their information is to blindly trust your personal credibility with an outside party; this is akin to letting them speak for you - even though you didn't verify their statements.

As a bright fellow, you owe it to yourself to validate such statements before placing your name and reputation on them.

Check with the Fraser Institute, Statistics Canada, or the any of the dozens of Universities (including American ones) that keep such statistics about Canada. On average, things are generally pretty quiet up here.

Still a law abiding guy,
Bob

1370. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 04:06:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40188775$1_8@corp.newsgroups.com>
Source record: 101141

Tdonaly wrote:
> O.k., so he is writing about a moment method analysis. I hope Yuri and
> Cecil read this along with your results, Wes. Cecil can't possibly argue
> with this... I take that back, Cecil could argue with the Devil about how
> hot hell should be, so maybe this won't stop him after all.

I will argue about any software package that doesn't agree with reality.
If the moment method assumes coils with no distributed capacitance, it
is wrong in certain cases. Will the moment method simulate the 180 degree
phase shift in Kraus' self-resonant loading coils?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1371. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 04:08:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40188809$1_8@corp.newsgroups.com>
Source record: 101142

Wes Stewart wrote:
> Cecil and Yuri have been uncharacteristically silent, at least about
> this thread since I started it. Frankly I expected some flak.

I haven't been paying attention. What's the bottom line? Another
software package that assumes current travels through a coil at
faster than the speed of light?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1372. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 04:12:18 UTC
From: Bob <nospam@nowhere.nobody.forgetit.nil>
Message-ID: <LK%Rb.57203$Kg6.598661@news20.bellglobal.com>
Source record: 101144

Cecil Moore wrote:

> Bob wrote:
>
>> Where did you read/hear crime is Canada is skyrocketing?
>
>
> Canadians Resisting Tough New Gun Law
> By Colin Nickerson, The Boston Globe,
> Published Wednesday, January 10, 2001, in the Miami Herald
>
> "But even the (Canadian) federal government concedes that a minimum
> of 400,000 of the country's estimated 2.2 million gun owners have
> refused to comply -- a shocking figure in a society where respect
> for the law is second nature. And the real tally of noncompliers
> may be much higher: Gun groups count six million privately owned
> rifles and shotguns in Canada, meaning that millions of citizens
> may be defying the law."
>
> If millions of citizens choosing to become criminals is not
> a skyrocketing crime rate, I don't know what is.

Cecil,

That's a civil protest, the people 'protesting' in this fashion are already registered FAC (Firearm Acquisition Certificate) holders. What they are doing is protesting the BILLION+ dollar fiasco that was originally put forth as something that would cost taxpayers $2 million. The fellows protesting are openly identifying themselves, not hiding from the law. Furthermore, the federal government has already backed down on enforcing it and the opposition party (that would be the Conservative party, not the Liberal party - they are the current Majority; but I'm sure you already knew that) is attempting to have it scrapped entirely - something the Canadian Association of Chiefs of Police also want scrapped. (rumour has it the bad guys have neither an FAC nor a specific permit per firearm.) That's what this foolishness is all about - registering EACH SPECIFIC firearm separately.

As an NRA guy, I don't think your would refer to these fellows as criminals.

Bob

1373. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 04:16:32 UTC
From: Bob <nospam@nowhere.nobody.forgetit.nil>
Message-ID: <JO%Rb.57205$Kg6.599219@news20.bellglobal.com>
Source record: 101146

Cecil Moore wrote:

> CW wrote:
>
>> They are breaking the law, yes but I see a bit of distinction here
>> between
>> these people and common criminals. The criminal actively commits an
>> illegal
>> act. These people retaining their firearms did not commit any act.
>> They were
>> declared criminals without any action of their own.
>
>
> There are crimes of commission and crimes of omission. If a law requires
> action
> of law-abiding citizens, then inaction is a crime. The Canadian gun laws
> caused
> the crime rate in Canada to skyrocket.

So if your government ordered ALL firearms surrendered to the local authority, would you label those who peacefully choose not to comply as criminals, or libertarians trying to retain freedom for their country's free citizens? What would "First Freedom" write about them?

1374. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 04:26:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40188c19_8@corp.newsgroups.com>
Source record: 101145

Bob wrote:
> Check with the Fraser Institute, Statistics Canada, or the any of the
> dozens of Universities (including American ones) that keep such
> statistics about Canada. On average, things are generally pretty quiet
> up here.

Do you deny that you have hundreds of thousands of new criminals
who are violating the Canadian gun registration laws? Don't you
think those hundreds of thousands of crimes add to the Canadian
crime rate?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1375. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 04:31:38 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040128233138.04554.00000948@mb-m10.aol.com>
Source record: 101147

>Tdonaly wrote:
>> Cecil reads all the inflammatory, right wing, gun magazines and
>> believes them.
>

Sure closer to reality and truth than Commie leftie enviro nazis "media"
propaganda. Been there, lived it, escaped from it just to find it to flourish
here at universities and networks.

Just look at the nine lying "presidential hopefull" skunks.
Back to the coils.

BUm

1376. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 04:34:04 UTC
From: Bob <nospam@nowhere.nobody.forgetit.nil>
Message-ID: <a30Sb.57225$Kg6.602824@news20.bellglobal.com>
Source record: 101148

Cecil Moore wrote:

> Bob wrote:
>
>> Check with the Fraser Institute, Statistics Canada, or the any of the
>> dozens of Universities (including American ones) that keep such
>> statistics about Canada. On average, things are generally pretty quiet
>> up here.
>
>
> Do you deny that you have hundreds of thousands of new criminals
> who are violating the Canadian gun registration laws? Don't you
> think those hundreds of thousands of crimes add to the Canadian
> crime rate?

What's the date on your magazine? The 'deadline to comply' was midnight,
Dec31/03. So if your article was composed prior to that date, they were
not yet in non-compliance of anything and therefore could not possibly
be the source of this alleged 'soaring crime rate.'

Sorry sir, you're getting pretty far out on that limb - your argument is
just about bent to the ground.

1377. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 05:10:33 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <401895D6.2080108@get.lost>
Source record: 101149
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Unclaimed Mysteries wrote:

> You mean former senatator(tm) John Ashcroft (R- *MO*) and current
> Senator Slick Rick Santorum, (R- *PA*), don't you? Pssst. Both states
> are above the M-D line.

If you're having trouble understanding other people's points, refrain
from posting.

>> Wait, I'm confused...
>
> I agree with this part.

I get it, this is a joke, right? Something like, how do you know you're
a redneck? Electric current in your trailer park runs so slowly that you
respond to a thread that's been dead for two months.

WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

1378. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 05:40:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40189d7e_5@corp.newsgroups.com>
Source record: 101150

Bob wrote:
> That's what this foolishness is
> all about - registering EACH SPECIFIC firearm separately.
> As an NRA guy, I don't think your would refer to these fellows as
> criminals.

They are breaking Canadian federal law. That makes them criminals,
by definition, does it not?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1379. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 05:41:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40189dbf_5@corp.newsgroups.com>
Source record: 101151

Bob wrote:
> So if your government ordered ALL firearms surrendered to the local
> authority, would you label those who peacefully choose not to comply as
> criminals, or libertarians trying to retain freedom for their country's
> free citizens?

Yes!
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1380. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 05:48:45 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40189f80_5@corp.newsgroups.com>
Source record: 101152

Bob wrote:
> What's the date on your magazine?

Feb, 2004

>The 'deadline to comply' was midnight, Dec31/03.

Yep, about a month ago. It is estimated that approximately
one million Canadians didn't comply with that federal law.
That's quite a skyrocketing crime rate - one million new
criminals as of Jan. 1, 2004. The rate of increase in
violations of "other federal laws" was already around +7%.

>So if your article was composed prior to that date, ...

It predicted mass violation of Canadian federal law which
is apparently exactly what happened.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1381. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:00:47 UTC
From: tdonaly@aol.com
Message-ID: <20040129010047.13026.00001047@mb-m02.aol.com>
Source record: 101153

Cecil wrote,
>
>Tdonaly wrote:
>> O.k., so he is writing about a moment method analysis. I hope Yuri and
>> Cecil read this along with your results, Wes. Cecil can't possibly argue
>> with this... I take that back, Cecil could argue with the Devil about how
>> hot hell should be, so maybe this won't stop him after all.
>
>I will argue about any software package that doesn't agree with reality.
>If the moment method assumes coils with no distributed capacitance, it
>is wrong in certain cases. Will the moment method simulate the 180 degree
>phase shift in Kraus' self-resonant loading coils?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Have you ever actually made one of these magical coils, Cecil? If you
have, will you tell me how to do it? Did you read Wes' material?
73,
Tom Donaly, KA6RUH

1382. Re: New (?) tower design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:00:48 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <388h10lohb3cnbhnjic92ck3t9j56pqnc8@4ax.com>
Source record: 101155

On Wed, 28 Jan 2004 19:37:48 -0500, "Ralph Mowery" <rmowery@ctc.net>
wrote:

>.
>>
>> I find that surprising as my current home owners policy (State Farm)
>> and the previous company (who I can't remember right now) were very
>> specific. It attaches to the house and they wouldn't insure it.
>>
>
>That is what my State Farm agent found out. I have cars with them and
>decided to insure the house. They turned me down because the 40 foot tower
>was attached to the house.
>I hope to try again when I move soon and see what hapens with a tower that
>is not attached.

My wife tells me we are now insured with Auto Owner's, but it's still
the same. They didn't want the tower attached. It could be within 6
inches of the house as long as it was not mechanically attached.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>

1383. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:05:07 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <R5ydnYS4QI8aP4XdRVn-ug@comcast.com>
Source record: 101154

"Bob" <nospam@nowhere.nobody.forgetit.nil> wrote in message
news:JO%Rb.57205$Kg6.599219@news20.bellglobal.com...
> > CW wrote:
> >
> >> They are breaking the law, yes but I see a bit of distinction here
> >> between
> >> these people and common criminals. The criminal actively commits an
> >> illegal
> >> act. These people retaining their firearms did not commit any act.
> >> They were
> >> declared criminals without any action of their own.
>
> So if your government ordered ALL firearms surrendered to the local
> authority, would you label those who peacefully choose not to comply as
> criminals, or libertarians trying to retain freedom for their country's
> free citizens? >

I wouldn't call them criminals at all. I see government as a necessary evil.
There are times when they (the government) needs to be told to back off.

1384. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:05:29 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <pd8h10d3oiqglb9suf2jh2coqe1nvc0kag@4ax.com>
Source record: 101156
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

On Wed, 28 Jan 2004 19:48:06 -0000, "Laurie" <laurie_h@despammed.com>
wrote:

>Roger Halstead wrote:
>> The " system" gets hit about 3 times a year on average.
>> http://www.rogerhalstead.com/ham_files/tower.htm
>
>Interesting site. However the links to your larger pictures are all broken.
>They refer to files on your local PC eg:
>file:///C:/Documents%20and%20Settings/Administrator.ROGER2.000/My%20Documents/My%20Webs/h
am_files/tower8.htm

Thanks for telling me.

I uploaded some frames for the local EAA Chapter and apparently "Front
Page" in its infuriating propensity to change everything to it's way
of thinking "did it to me" again.

FP is great to work with "at times", but it uses sloppy and bloated
code you don't need. And... If you forget it'll upload files other
than what you planned. Down load 'em and then re upload them and you
will find them reconfigured.

<sigh> Back to fixing links. (I wonder what else may have been
broken) I have nearly 60 megs on those pages.

Again, thanks,

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

1385. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:09:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4018a471$1_7@corp.newsgroups.com>
Source record: 101157

Tdonaly wrote:
> Have you ever actually made one of these magical coils, Cecil? If you
> have, will you tell me how to do it?

It ain't rocket science, Tom, and it ain't magic. Do you understand self-resonance? Every coil is self-resonant on some frequency. Build the antenna for whatever that frequency is. My Diamond 440 MHz mobile antenna uses a phase reversing coil to phase a 1/4WL element with the 1/2WL element directly above yielding a fair amount of gain over a single 1/4WL element.

> Did you read Wes' material?

That .pdf file locks up my computer during downloading. I may need an upgrade to my Adobe Acrobat reader.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1386. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:11:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4018a4de$1_7@corp.newsgroups.com>
Source record: 101158

CW wrote:

> "Bob" <nospam@nowhere.nobody.forgetit.nil> wrote in message
>>So if your government ordered ALL firearms surrendered to the local
>>authority, would you label those who peacefully choose not to comply as
>>criminals, or libertarians trying to retain freedom for their country's
>>free citizens? >
>
> I wouldn't call them criminals at all.

Aren't they criminals, by definition? Isn't violation of a federal
law a crime, by definition?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1387. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:18:55 UTC
From: Unclaimed Mysteries <theletter_k_andthenumeral_4_doh@unclaimedmysteries.net>
Message-ID: <jB1Sb.1038$jH6.942@newsread1.news.atl.earthlink.net>
Source record: 101159
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Who's in charge here, "Zoran Brlecic" <...WA7AA...@get.lost>? Where's my
Captain's Wafers?:

> Unclaimed Mysteries wrote:
>
>
>> You mean former senatator(tm) John Ashcroft (R- *MO*) and current
>> Senator Slick Rick Santorum, (R- *PA*), don't you? Pssst. Both states
>> are above the M-D line.
>
>
> If you're having trouble understanding other people's points, refrain
> from posting.
>

Thank you for the advice, but I'll continue to post from time to time
without your permission.

>>> Wait, I'm confused...
>>
>>
>> I agree with this part.
>
>
> I get it, this is a joke, right? Something like, how do you know you're
> a redneck? Electric current in your trailer park runs so slowly that you
> respond to a thread that's been dead for two months.
>
> WA7AA
>
>

I apologize. I recently resubscribed to rec.radio.amateur.digital.misc
after many months and loaded up the first several hundred mesages.
Thinking I was on a more active newsgroup I jumped in to this "current"
discussion. After making a few blasts, I looked and saw the posts were
dated last November, and spanned five groups. My bad. I suspect I'm
already in a few killfiles.

73, Corry K4DOH
--
It Came From C. L. Smith's Unclaimed Mysteries.
http://www.unclaimedmysteries.net

1388. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:21:33 UTC
From: tdonaly@aol.com
Message-ID: <20040129012133.13026.00001049@mb-m02.aol.com>
Source record: 101160

Cecil wrote,
>
>Bob wrote:
>> What's the date on your magazine?
>
>Feb, 2004
>
>>The 'deadline to comply' was midnight, Dec31/03.
>
>Yep, about a month ago. It is estimated that approximately
>one million Canadians didn't comply with that federal law.
>That's quite a skyrocketing crime rate - one million new
>criminals as of Jan. 1, 2004. The rate of increase in
>violations of "other federal laws" was already around +7%.
>
>>So if your article was composed prior to that date, ...
>
>It predicted mass violation of Canadian federal law which
>is apparently exactly what happened.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Cecil, do you always drive the speed limit? In this county, (San Mateo County)

there's a law requiring all cat owners to license their cats. Most people
ignore it
(except in Foster City where it's rigidly enforced). Do you want to count all
the
people who refuse to license their cats in the crime statistics? You're putting

too fine a point on your argument.
73,
Tom Donaly, KA6RUH

1389. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:32:22 UTC
From: tdonaly@aol.com
Message-ID: <20040129013222.13026.00001050@mb-m02.aol.com>
Source record: 101161

Yuri wrote,
>
>>Tdonaly wrote:
>>> Cecil reads all the inflammatory, right wing, gun magazines and
>>> believes them.
>>
>
>Sure closer to reality and truth than Commie leftie enviro nazis "media"
>propaganda. Been there, lived it, escaped from it just to find it to flourish
>here at universities and networks.
>
>Just look at the nine lying "presidential hopefull" skunks.
>Back to the coils.
>
>BUm
>

An extremist is an extremist. It doesn't matter if you're yanked out of bed
in the middle of the night by a Fascist or a Communist, you're still yanked out

of bed. I dislike both Fascists and Communists equally.
73,
Tom Donaly

1390. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:34:18 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <02ah10de9im0u163mtvhfpuqg709qmnr5e@4ax.com>
Source record: 101164
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

On Wed, 28 Jan 2004 19:48:06 -0000, "Laurie" <laurie_h@despammed.com>
wrote:

>Roger Halstead wrote:
>> The " system" gets hit about 3 times a year on average.
>> http://www.rogerhalstead.com/ham_files/tower.htm
>
>Interesting site. However the links to your larger pictures are all broken.
>They refer to files on your local PC eg:
>file:///C:/Documents%20and%20Settings/Administrator.ROGER2.000/My%20Documents/My%20Webs/h
am_files/tower8.htm

<sigh> It wasn't as bad as I feared, but not as good as I hoped.<:-))

Having a backup, I turned off the FP extensions on the server,
up-loaded the tower.htm file using ftp and then went through it image
by image.
One directory missing, 4 files missing (htms) and one bad link.
and one image. I have no idea as to where it put that image which is
supposed to be in a sub directory one level down from ham_files which
is one level down from the root.

All-in-all, about 20 minutes to fix including the wait for FP to
reconfigure.

That utility can be great for some things and a royal pain for others.

At least the frames still work.
OTOH when I get the interactive *stuff* going I won't be able to turn
them off.

Again, thanks for letting me know about the broken links.

Roger Halstead (K8RI & ARRL life member)
(N833R, S/N CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

1391. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:36:08 UTC
From: tdonaly@aol.com
Message-ID: <20040129013608.13026.00001051@mb-m02.aol.com>
Source record: 101162

Cecil wrote,
>
>Wes Stewart wrote:
>> Cecil and Yuri have been uncharacteristically silent, at least about
>> this thread since I started it. Frankly I expected some flak.
>
>I haven't been paying attention. What's the bottom line? Another
>software package that assumes current travels through a coil at
>faster than the speed of light?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

How fast does light travel in copper, Cecil?
73,
Tom Donaly, KA6RUH

1392. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 06:36:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4018aace_7@corp.newsgroups.com>
Source record: 101163

Tdonaly wrote:
> Do you want to count all the
> people who refuse to license their cats in the crime statistics?

The subject is federal felony laws, Tom. Do you have
an example of a cat licensing federal felony law?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1393. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 07:03:05 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <bvaaoe$c50$1@fata.cs.interbusiness.it>
Source record: 101165

Thanks a lot for all the answers,
I'm doing some tests in laboratory with a network analyzer and will let you know asap what I will find.
Massimo

1394. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 07:34:21 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <74dh10hmdg9hcehc2mi422p50nflv8a1vf@4ax.com>
Source record: 101166

On Wed, 28 Jan 2004 22:06:11 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

|Tdonaly wrote:
|> O.k., so he is writing about a moment method analysis. I hope Yuri and
|> Cecil read this along with your results, Wes. Cecil can't possibly argue
|> with this... I take that back, Cecil could argue with the Devil about how
|> hot hell should be, so maybe this won't stop him after all.
|
|I will argue about any software package that doesn't agree with reality.

So "reality" exists when the software gives you the answer you expect:

http://www.qsl.net/w5dxp/current.htm

but is useless otherwise? You trust it to analyze linear conductors
and inductive stubs that have inductance and capacitance per unit
length but conclude that it is flawed when the conductor is coiled up
a bit. Interesting.

|If the moment method assumes coils with no distributed capacitance,

Did you bother to read Rhea's paper?

http://www.eagleware.com/pdf/apps/2020_FiltOscUsingSolenoid.pdf

| it
|is wrong in certain cases. Will the moment method simulate the 180 degree
|phase shift in Kraus' self-resonant loading coils?

1395. antenna modeling question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 08:35:20 UTC
From: larry d clark <buddycl@swbell.net>
Message-ID: <cB3Sb.12266$cC3.7405@newssvr23.news.prodigy.com>
Source record: 101167

the modeling programs i use, eznec & mmana seem
to have no way to model an antenna with it's elements
made of nothing but copper, and aluminum. how do
you model an antenna made of coax? what am i missing?

larry
kd5foy

1396. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 08:44:42 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvah5t$497h$1@news3.infoave.net>
Source record: 101168

Is it the same dude that makes all the movies available over the camp intranet? If you run into my son Mike, the helicopter maintenance test pilot(WO3 Yank type his picture at http://gilbertnews.net/military.htm)., tell him his dad said hi. He may have headed back to South camp by now.

First, the Advanced class no longer exists. Second all the questions and answers are published on the ARRL website as well as QRZ.com and a zillion other places ALL FREE!
"Nelson" <tstevens@cogeco.ca> wrote in message news:NLhRb.176$_62.87@read1.cgocable.net...
> Is there such a thing, some guy in El Gorah, Egypt a Yank no less tried to
> sell my friend a copy of this, ok so him and I were a little game, we bought
> the thing from him, guess its seems to be all the right answers for the
> Advanced test, so my question is now how many of these things are there out
> there, and how guys are for real, not some two bit cow-boy that knows
> nothing about nothing. What happens when we need those guys in a emergency
> and they don't know crap!!.
>
> Guys if you know of other cheat sheets out there, please send them this way,
> I will do my level best to get them out.
>
>
> Nelson Stevens
>
>
>

1397. antenna modeling question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 08:51:44 UTC
From: larry d clark <buddycl@swbell.net>
Message-ID: <AQ3Sb.12267$Gw3.2664@newssvr23.news.prodigy.com>
Source record: 101069

the modeling programs i use, eznec & mmana seem
to have no way to model an antenna with it's elements
made of nothing but cu, and al. how do you model
an antenna made of coax? what am i missing?

larry
kd5foy

1398. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 09:11:37 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvaiob$4aa0$1@news3.infoave.net>
Source record: 101070

I think he means DHMO (Dihydrogen Monoxide)

DHMO is the most prevalent greenhouse gas. It causes more global warming
than carbon dioxide, carbon monoxide, and methane combined.

DHMO is a colorless, odorless constituent of many known toxic substances,
diseases, and disease-causing agents.

DHMO has lead to many environmental hazards, accelerates erosion, is the
primary component of acid rain, and has a profound impact on wild life. The
damage is costing billions of dollars.

DHMO has many immediate, personal dangers. Death frequently results from the
accidental inhalation of DHMO, even in relatively small amounts.

DHMO has been found in all tumors excised from cancer patients.

DHMO is used in the distribution of pesticides. Even after washing, produce
remains contaminated by this chemical.

Yet the FDA and other government agencies permit substantial amounts in food
products, including baby food! Even Clinton was afraid to take on the job of
banning it! Al Gore, in his book "Earth in the balance", even claims it may
have been directly linked to the floods in the Mississippi river area a few
years back.

Bob has every reason to be upset!

"CW" <clinton.magers@comcast.net> wrote in message
news:VbadnV4tJ90vxIXd4p2dnA@comcast.com...
> Typical envirowako. Doesn't even know what it is but its got "one of those
> scientific names" so it must be bad. Yes, carbon dioxide is bad. You
exhale
> it when you breath. Do your part, help the world, quit breathing.
>
>
> "Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
>
> > Maybe it was carbon monoxide -- some kind of carbon...
> >
> > bob
> > k5qwg
> >
> >
>
>

1399. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 09:17:11 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvaj2o$49u0$1@news3.infoave.net>
Source record: 101071

Anyone who thinks the Miami Hearld is "right wing" has never read it...

> Cecil reads all the inflammatory, right wing, gun magazines and
> believes them.
> Tom Donaly, KA6RUH
>
>

1400. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 10:51:18 UTC
From: Charles Brabham <n5pvl@sbcglobal.net>
Message-ID: <GA5Sb.11174$ky2.2928@newssvr22.news.prodigy.com>
Source record: 101072
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Unclaimed Mysteries"
<theletter_k_andthenumeral_4_doh@unclaimedmysteries.net> wrote in message
news:jB1Sb.1038$jH6.942@newsread1.news.atl.earthlink.net...
>
> I apologize.

You already apologized a while back... That first time worked just fine for me. You know what to do with the rest of them, if they can't take a joke, right?

If anybody else trolls you on it, I'd just ignore them.

Charles, N5PVL

1401. Re: looking for help in building a transmission line.... and antenna...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 10:53:01 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.NET>
Message-ID: <14ydnbqAs5zre4XdRVn-vg@comcast.com>
Source record: 101073

"larry" <larya@rogers.com> wrote in message
news:uQSRb.263$xOc1.29@twister01.bloor.is.net.cable.rogers.com...
> Greetings
>
> Well I find myself to be in a rather strange delema....
>
> A brief history to help you help me...
>
> I was licenced in 1964...I was 16. My ham station was put in my
basement..
> My first antenna, a random wire, was run along the basement ceiling, out a
> basement window frame, up to the eavestrough and down the backyard to the
> closeline pole...About 75 feet in length...
>
> Later, about 1972, my first 2 meter fm station the coax, rg58 or 8, when
> along the ceiling, through a hole in the concrete of the house, up a tower
> and to a 5 element beam...
>
> More recently my ham station has moved up to the main floor. My 2 meter
> radio is now about 6 or 7 feet above ground. I stuck a 1/4 wave length
of
> wire in the so239 output connector ic275a, using a right angle adapter,
and,
> with the mike cable extended to form one leg of a signle leg ground plane,
> managed to trip a local repeater....
>
> Now here is my situation...I would like to build a full 1/4 wave
groundplane
> or something similar directly above the radio but, in order to have
radials
> that don't pook me in the face, I will need to raise the antenna up about
2
> or 3 feet. I could use coax but for that short of a run?...
>
> Is it possible to build a length of air dialectric coax (I am wondering
> what a perfect length of coax is made of between the center conductor and
> braid and how long it would have to be), 50 ohm that is about 2 to 3 feel
> long?

I have built short solid coax with 3/4" copper tubing and 1/4" inside copper
tubing.
Or whatever you have that come close to 138 log (ratio of the two tubings)
>
> Next question would be.. how to tune it...

The answer is: "how do you tune ANY antenna system?".
>
> I am guessing that it is about 5 feet from the radio to the ceiling...
>
> Any thoughts?
>
> Larry ve3fxq
>

--
*
| __O Thomas C. Sefranek WA1RHP@ARRL.net
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

1402. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 12:31:38 UTC
From: Laurie <laurie_h@despammed.com>
Message-ID: <4018fda1$0$13353$cc9e4d1f@news-text.dial.pipex.com>
Source record: 101075
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

Roger Halstead wrote:
> <sigh> It wasn't as bad as I feared, but not as good as I hoped.<:-))
[snip]
>
> All-in-all, about 20 minutes to fix including the wait for FP to
reconfigure.
> That utility can be great for some things and a royal pain for others.
>

I've got the same FP 't-shirt' :-)

>
> Again, thanks for letting me know about the broken links.
>

You're welcome, all seems fine now.
You have a much better head for heights than I have.

--
73 Laurie - G6ISY

1403. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 12:32:24 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <s37Sb.181265$na.292826@attbi_s04>
Source record: 101074

It's worse than that. Breath Carbon Dioxide and you can die!! That's
why the enviro types want it banned.

BTW: It's generally called 'suffocation!'

CW wrote:

> Typical envirowako. Doesn't even know what it is but its got "one of those
> scientific names" so it must be bad. Yes, carbon dioxide is bad. You exhale
> it when you breath. Do your part, help the world, quit breathing.
>
>
> "Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
>
>
>>Maybe it was carbon monoxide -- some kind of carbon...
>>
>>bob
>>k5qwg
>>
>>
>
>
>

1404. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 12:46:40 UTC
From: Bob <nospam@nowhere.nobody.forgetit.nil>
Message-ID: <Zg7Sb.57355$Kg6.622278@news20.bellglobal.com>
Source record: 101076

Cecil Moore wrote:
> CW wrote:
>
>> "Bob" <nospam@nowhere.nobody.forgetit.nil> wrote in message
>>
>>> So if your government ordered ALL firearms surrendered to the local
>>> authority, would you label those who peacefully choose not to comply as
>>> criminals, or libertarians trying to retain freedom for their country's
>>> free citizens? >
>>
>>
>> I wouldn't call them criminals at all.
>
>
> Aren't they criminals, by definition? Isn't violation of a federal
> law a crime, by definition?

You know, there's an even greater crime committed every day both here in
Canada and the USA, (and probably everywhere else in the modern world)

Wasting internet bandwidth.

Have a nice day :)
B.
>ath0<
>snip!<

1405. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 13:38:56 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040129083856.28324.00000998@mb-m15.aol.com>
Source record: 101077

>>So "reality" exists when the software gives you the answer you >expect:
>http://www.qsl.net/w5dxp/current.htm
>but is useless otherwise?

Maybe more like answer that reflects reality?

>You trust it to analyze linear conductors
>and inductive stubs that have inductance and capacitance per unit
>length but conclude that it is flawed when the conductor is coiled up
>a bit. Interesting.

Isn't it interesting that loading stubs and coils, having the same inductance
do the same amount of shortening of the wip, same effect, but when modeling
programs model it, they show different current distribution? Funny logic?

What about coax choke used at the antenna feedpoint? Have not heard "reason"
for different RF current at both ends. It chokes, doesn't it? Huh?
Yuri

1406. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 13:45:02 UTC
From: mlori@ieee.org
Message-ID: <ddff27eb.0401290545.3b5bce22@posting.google.com>
Source record: 101078

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<470g10hg25iqhehktg3v937tohb7i1v5hm@4ax.com>...
> On 28 Jan 2004 03:39:57 -0800, mlori@ieee.org (Maurizio) wrote:
>
> >Hi all,
> >Is there anybody with some experience in MF antenna modelling with
> >ground effect included (surface wave/space wave) etc. ?
> >I have the need to find out if the NEC4 is able to modellize this type
> >of antenna in a general environment and with which performance.
> >Otherwise, I will have to find out alternative ways (FEM/...).
> >
> >Thanks in advance for any suggestion
> >
> >
> >Best regards
> >
>
> Hi Maurizio,
>
> Antenna modelers (NEC engines) render far, far field results. The
> effect of ground is considered only for
> 1. its impact on feedpoint Z;
> 2. equivalent launch angle (from the perspective of very far, or DX,
> receivers).
>
> What you describe as your need sounds more like the province of
> propagation modelers. There are some add-on packages that incorporate
> with antenna modelers to allow for a variety of terrains; but even
> those, I think, still relate to the very far, DX, receivers.
>
> Even the propagation modelers (like VOACAP and VOAAREA) are tailored
> for HF and the far, far field. Our references from the FCC for MF
> broadcast stations stands as a resource. Those references go back
> many years and little has advanced the science as it has served the
> industry very well.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
I know that some studies have been done in the past using NEC4 to find
the ground wave/space wave fields, but my primary interest is in the
near zone modelling of such MF antennas, in particular in presence of
non-flat ground.

The scope is to make a tool to evaluate the radiated fields in inhabited regions with limits in the maximum field amplitude. A tool dedicated to this task would be very useful for the site evaluation.

I have some idea on based on recent studies, but maybe (as often happen) that others have already done something interesting.

Are these FCC resources dealing with such issues ?
And if so are they freely available?

Thanks in advance

Maurizio

1407. FA: Zenith L515-W AM Telechron Clock Tube Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 15:18:00 UTC
From: tuber <havefun@aol.com>
Message-ID: <Xns947F68C12D18Dtuber@207.250.5.36>
Source record: 101079

Up for auction is a nice Zenith L515-W AM Tube Radio from the early 1950's, featuring a Telechron Clock with sleep control, and Bakelite case. It is in very good condition.

Ebay item number: 2221510600

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2221510600

1408. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 15:36:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4019294a_3@corp.newsgroups.com>
Source record: 101080

Wes Stewart wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> |I will argue about any software package that doesn't agree with reality.
>
> So "reality" exists when the software gives you the answer you expect:

Come on, Wes. Reality exists when the software *accurately* models inductance, capacitance, and resistance. Software packages that assume zero distributed capacitance in a real-world coil are simply inaccurate for certain applications. For instance, Kraus' phase-reversing coil cannot be modeled in EZNEC, at least not as a single coil in a straight forward manner. Do you have any suggestions about using EZNEC (or other MOM software) to model the phased array antenna described by Kraus on page 824 of _Antennas_for_all_Applications, 3rd edition, which uses two phase-reversing coils?

So the question still stands. Can you model Kraus' phase-reversing coil using the method of moments? If so, and the coil is not perfectly tuned and perfectly installed, you will have current flowing into both ends of the coil at the same time. I am not a MOM expert, so I don't know the answer. EZNEC seems to model phase-reversing stubs just fine.

> You trust it to analyze linear conductors
> and inductive stubs that have inductance and capacitance per unit
> length but conclude that it is flawed when the conductor is coiled up
> a bit. Interesting.

EZNEC seems to model inductive stubs just fine so I have no reason to distrust it. EZNEC fails to give the same results for an inductive stub Vs a lumped inductive reactance because it doesn't model real-world coils. It will not model Kraus' phase-reversing coil and gives erroneous results when an antenna using phase-reversing coils is modeled. I have the EZNEC files that demonstrate that fact if you would like to have them.

> Did you bother to read Rhea's paper?
> http://www.eagleware.com/pdf/apps/2020_FiltOscUsingSolenoid.pdf

This is the first I have heard of it. I will read it this afternoon at work. I can't download .pdf files at home.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1409. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 15:44:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40192b07_3@corp.newsgroups.com>
Source record: 101082

Dave Shrader wrote:
> It's worse than that. Breath Carbon Dioxide and you can die!! That's
> why the enviro types want it banned.

If Carbon Dioxide is eliminated, all the plants will die so
we will all die anyway from lack of oxygen. Carbon Dioxide
is relatively harmless to us until it displaces oxygen. If
the astronauts took enough plant life with them, they wouldn't
need CO2 scrubbers.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1410. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 15:45:08 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <66ai101albt6qdmob7mmviqh5087r9p9r6@4ax.com>
Source record: 101081

On 29 Jan 2004 13:38:56 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:

|>>So "reality" exists when the software gives you the answer you >expect:
|>http://www.qsl.net/w5dxp/current.htm
|>but is useless otherwise?
|
|Maybe more like answer that reflects reality?
|
|>You trust it to analyze linear conductors
|>and inductive stubs that have inductance and capacitance per unit
|>length but conclude that it is flawed when the conductor is coiled up
|>a bit. Interesting.
|
|Isn't it interesting that loading stubs and coils, having the same inductance
|do the same amount of shortening of the wip, same effect, but when modeling
|programs model it, they show different current distribution? Funny logic?
|
|
|What about coax choke used at the antenna feedpoint? Have not heard "reason"
|for different RF current at both ends. It chokes, doesn't it? Huh?

Sorry, I've taken all of the jabs at this tarbaby that I care to. I
spent a lot of time preparing the paper that I published and it
"reflects reality" as I see it, until proven otherwise.

I would think that the pair of you would give a Howard Dean,
Yeeeeaaaaa! yell and claim that my findings proved your point that the
current is different at the two ends of the loading coil. Go figure.

Wes

1411. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 15:47:00 UTC
From: "Dan Richardson"
Message-ID: <plai1055nukigpg591quo6146bds1ash39@4ax.com>
Source record: 101086

On Wed, 28 Jan 2004 22:08:40 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>I haven't been paying attention.

Obviously

Danny, K6MHE

1412. Re: antenna modeling question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 15:52:48 UTC
From: "Dan Richardson"
Message-ID: <vsai1017vk0c9dh5jvjssc6j99b3ekliug@4ax.com>
Source record: 101088

On Thu, 29 Jan 2004 08:51:44 GMT, "larry d clark" <buddycl@swbell.net>
wrote:

>the modeling programs i use, eznec & mmana seem
>to have no way to model an antenna with it's elements
>made of nothing but cu, and al. how do you model
>an antenna made of coax? what am i missing?

My copy of EZNEC also has tin or zinc plus "user defined". So you
could enter any value resistivity and relative permeability you want.

Danny, K6MHE

1413. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 15:53:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40192d40_3@corp.newsgroups.com>
Source record: 101083

Bob wrote:

> Cecil Moore wrote:
>> Aren't they criminals, by definition? Isn't violation of a federal
>> law a crime, by definition?
>
> You know, there's an even greater crime committed every day both here in
> Canada and the USA, (and probably everywhere else in the modern world)
> Wasting internet bandwidth.

When one loses the logical argument, one changes the subject. :-)
I think the Canadian gun registration laws are stupid and deserve
to be disobeyed. They are a good example of creating criminals out
of otherwise squeaky clean law-abiding citizens. The drug laws in
this country relating to casual users are another example. When
I was younger and lived in CA, I was a criminal for smoking a God-
given weed on the sidewalks of San Francisco. The police simply
ignored the hundreds of of criminals like me who were smoking pot
while waiting in line for a rock concert.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1414. Antenna Rotator problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 16:00:22 UTC
From: ericdwong@yahoo.com
Message-ID: <7b667fe1.0401290800.2f64f638@posting.google.com>
Source record: 101084

Hi all, on my TV/scanner/Fm antenna stack I have a problem, Im using an old channel master rotator and it does not "hold" the antenna from rotating in high wind. Are the "brakes" burnt out on it? Is there an easy repair? or should I just buy a new unit.

1415. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 16:00:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40192ee9$1_3@corp.newsgroups.com>
Source record: 101085

Wes Stewart wrote:
> Sorry, I've taken all of the jabs at this tarbaby that I care to. I
> spent a lot of time preparing the paper that I published and it
> "reflects reality" as I see it, until proven otherwise.

What is the name of your paper, Wes? I don't remember you
mentioning it before. All I have seen from your postings is
.pdf files of the work of others.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1416. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 16:15:47 UTC
From: richardharrison@webtv.net
Message-ID: <14281-401931B3-192@storefull-3257.bay.webtv.net>
Source record: 101090

Cecil, W5DXP wrote:
"The requirement is that the coil be self-resonant at the operating frequency."

That`s what I remembered. It`s as if a parallel resonant LC circuit is substituted for a quarter-wave short-circuited stub inverting the phase.

My problem is finding the page in Kraus` 3rd edition. Anyone have the number?

Best regards, Richard Harrison, KB5WZI

1417. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 16:16:27 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <XuidnfKPlstSrITdRVn-tw@comcast.com>
Source record: 101087

Yes, but in the context of this discussion, you are stretching it. You're
giving a demonstration of how stats can be made to show any point you want.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4018a4de$1_7@corp.newsgroups.com...
> CW wrote:
>
> > "Bob" <nospam@nowhere.nobody.forgetit.nil> wrote in message
> >>So if your government ordered ALL firearms surrendered to the local
> >>authority, would you label those who peacefully choose not to comply as
> >>criminals, or libertarians trying to retain freedom for their country's
> >>free citizens? >
> > >
> > > I wouldn't call them criminals at all.
>
> Aren't they criminals, by definition? Isn't violation of a federal
> law a crime, by definition?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1418. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 16:19:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4019336b_3@corp.newsgroups.com>
Source record: 101089

Dan Richardson < wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>I haven't been paying attention.
>
> Obviously

The original posting made no assertions and was simply a URL
which didn't respond when I tried to access it. The subsequent
postings seemed to be concerned with radiation resistance so I
didn't even read them. How does radiation resistance affect the
loading coil discussion? It has already been proven that EZNEC's
lumped circuit model doesn't work for Kraus' real world loading
coils. What else is there to say?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1419. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 16:24:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40193472_3@corp.newsgroups.com>
Source record: 101091

CW wrote:
> Yes, but in the context of this discussion, you are stretching it. You're
> giving a demonstration of how stats can be made to show any point you want.

No, I'm giving a demonstration of what happens when a country
passes a bad law. Does Canada really want to add a million
felons to its population?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1420. Re: Antenna Rotator problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 16:57:18 UTC
From: Nova_Man73@webtv.net
Message-ID: <26845-40193B6E-22@storefull-3275.bay.webtv.net>
Source record: 101092

It sounds like the brake has quit.Whether to repair or
replace.......depends on what the rotor costs off the shelf.I'd rather
pay $100 for repair if the rotor $700.But, I'd rather pay $44.95 for a
new one if the repair is $100.

1421. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 17:05:34 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <h8fi109l0aa1c7g4err1a19m8is3efhs0f@4ax.com>
Source record: 101093

On Thu, 29 Jan 2004 10:00:38 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

|Wes Stewart wrote:
|> Sorry, I've taken all of the jabs at this tarbaby that I care to. I
|> spent a lot of time preparing the paper that I published and it
|> "reflects reality" as I see it, until proven otherwise.
|
|What is the name of your paper, Wes? I don't remember you
|mentioning it before. All I have seen from your postings is
|.pdf files of the work of others.

I began this thread with a pointer to:

http://www.qsl.net/n7ws/Loaded%20antennas.htm

1422. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 17:07:03 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <34fi10tpkonuv7n8ld7micukqkanqc8780@4ax.com>
Source record: 101094

On Wed, 28 Jan 2004 21:56:29 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Bob Miller wrote:
>
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>
>>>Bob Miller wrote:
>>>>-- carbon dioxide is no longer considered a pollutant.
>>>
>>>Well, that's reasonable, since all animals create carbon
>>>dioxide and plants need it to survive.
>>
>> Maybe it was carbon monoxide -- some kind of carbon...
>
>Nope, it was carbon dioxide, one of the "greenhouse" gasses.
>Did you see Algore standing out in the coldest weather in
>25 years in New York City the other day warning everyone
>about global warming?

Didn't see that -- I'm assuming he had a nice earth-tone coat on? Love
that Al.

As I understand it, it is global warming in other parts of the planet
that is disrupting weather patterns and causing that wretched weather
up East, and that is why I'm paying $1.49 for regular gas this week.

Bob
k5qwg

1423. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 18:05:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40194b88_2@127.0.0.1>
Source record: 101095

Richard Harrison wrote:
> My problem is finding the page in Kraus` 3rd edition. Anyone have the
> number?

Page 824
--
73, Cecil, W5DXP

1424. Re: AMATEUR DONATIONS NEEDED

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 18:09:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40194c88_2@127.0.0.1>
Source record: 101096

Bob Miller wrote:
> As I understand it, it is global warming in other parts of the planet
> that is disrupting weather patterns and causing that wretched weather
> up East, and that is why I'm paying $1.49 for regular gas this week.

Yep, global warming has replaced The Devil as the source of all evil.
Fact is, we are still in the tail end of an ice age and the climate was
much warmer in the past before man ever walked the earth. Reckon we can
blame that on dinosaur farts?
--
73, Cecil, W5DXP

1425. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 18:21:23 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40194f68$1_2@127.0.0.1>
Source record: 101097

Wes Stewart wrote:
> I began this thread with a pointer to:
> http://www.qsl.net/n7ws/Loaded%20antennas.htm

Sorry, that page wouldn't load on my computer at the time
so I never read it. I will read it this afternoon. In the
meantime, is there anything in the paper that will defeat
the following argument?

Consider a mobile helical antenna for 75m. Will anyone
assert that the current at the bottom of the antenna is
equal to the current at the tip of the antenna?

Add a one foot stinger and reduce the length of the helical
until it is again resonant. Will anyone assert that the
current into the antenna is equal to the current into the
stinger?

Make the stinger two feet and resonate the antenna. Will
anyone assert that the current into the antenna is equal
to the current into the stinger?

Keep up this iteration until the current into the coil is
equal to the current out of the coil.

At exactly what length of coil does the current taper
magically disappear?
--
73, Cecil, W5DXP

1426. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 18:29:14 UTC
From: tdonaly@aol.com
Message-ID: <20040129132914.21792.00001127@mb-m06.aol.com>
Source record: 101098

Cecil wrote,
>
>Tdonaly wrote:
>> Have you ever actually made one of these magical coils, Cecil? If you
>> have, will you tell me how to do it?
>
>It ain't rocket science, Tom, and it ain't magic. Do you understand self-
>resonance? Every coil is self-resonant on some frequency. Build the antenna
>for whatever that frequency is. My Diamond 440 MHz mobile antenna uses a
>phase reversing coil to phase a 1/4WL element with the 1/2WL element
>directly above yielding a fair amount of gain over a single 1/4WL element.
>
>> Did you read Wes' material?
>
>That .pdf file locks up my computer during downloading. I may
>need an upgrade to my Adobe Acrobat reader.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

So any coil that is self-resonant at the antenna's frequency will
do?
73,
Tom Donaly, KA6RUH

1427. Re: Space Miser 80m - available again!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 18:39:00 UTC
From: "Alexander S. Wood" <alec_wood@NO.SPAM.PLEASE.ntlworld.com>
Message-ID: <PScSb.13278$JL4.108750@newsfep4-glfd.server.ntli.net>
Source record: 101103

Art,

If this is so, then why is flat braided strapping almost universally used for grounding straps in vehicles and on industrial installations inside factories such as production lines or heavy machinery.

I think that the poor electrical contact probably is only a risk if the braid is exposed to the elements at the points of connection, otherwise it is OK. Even this can probably be offset by good material choice.

In this instance I would have thought that the choice of braid had more to do with skin effects, and attempting to get the advantages of extra diameter without the weight of tubing.

I too like the capacitor, an ingenious solution.

Alec Wood
Interested in Amateur Radio?
Take a look at www.ukradioamateur.org

" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:5YlPb.93528$sv6.361439@attbi_s52...
> Well I thought that braided wire was not good to use.
> I have heard that braiding for instance must not be used for a grounding
> wire presumably because of poor electrical connections where the wires
> cross..
> Cheers
> Art
>
>
> "JGBOYLES" <jgboyles@aol.com> wrote in message
> news:20040120182731.21817.00000381@mb-m06.aol.com...
> > >He is using coax presumably for the braid to rediate. I suppose there
is
> some
> > benefit to connecting to its inside???
> >
> > Hi Art, I think the braid is connected to the inner conductor in an
> attempt
> > to reduce I^2*R losses. In small loops, that is a problem. As far as
> > increasing radiation, it should have the same effect as changing from a
> smaller
> > diameter wire to a larger one. You get less loss, but does the inside
of
> the
> > smaller wire radiate less than the inside of the larger wire?

> > One thing that caught my eye was the use of 300 ohm line for the
> capacitor.
> > The high voltage high Q cap. is another problem with small loops.
> >
> >
> > 73 Gary N4AST
>
>

1428. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 18:44:15 UTC
From: tdonaly@aol.com
Message-ID: <20040129134415.21792.00001128@mb-m06.aol.com>
Source record: 101099

Cecil wrote,
>
>EZNEC seems to model inductive stubs just fine so I have no reason to
>distrust it. EZNEC fails to give the same results for an inductive stub
>Vs a lumped inductive reactance because it doesn't model real-world
>coils. It will not model Kraus' phase-reversing coil and gives erroneous
>results when an antenna using phase-reversing coils is modeled. I have
>the EZNEC files that demonstrate that fact if you would like to have them.
>

Cecil, you can't even give a coherent explanation of how or why Kraus
"phase reversing coil" works, or how it relates to Wes' work. I would
expect any coil would work between two half-wave dipoles, but maybe not
at the frequencies you expect, and certainly not just because Kraus
said so.
73,
Tom Donaly, KA6RUH

1429. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 18:52:25 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401956b6_2@127.0.0.1>
Source record: 101100

Wes Stewart wrote:

> On Thu, 29 Jan 2004 10:00:38 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
> |Wes Stewart wrote:
> |> Sorry, I've taken all of the jabs at this tarbaby that I care to. I
> |> spent a lot of time preparing the paper that I published and it
> |> "reflects reality" as I see it, until proven otherwise.
> |
> |What is the name of your paper, Wes? I don't remember you
> |mentioning it before. All I have seen from your postings is
> |.pdf files of the work of others.
>
> I began this thread with a pointer to:
> http://www.qsl.net/n7ws/Loaded%20antennas.htm

A quick scan of your article produces nothing new. I have already
stated multiple times that the magnitude of the current into a coil
and the magnitude of the current out of the coil can have any relationship.
The magnitude of the current into the coil can be equal, less than, or
greater than the current out of the coil depending upon where it is
installed in the antenna system. If the coil is installed at a current
maximum point, a current maximum will occur in the coil. That's a
no-brainer.

Exactly what is it that you think you have proven?
--
73, Cecil, W5DXP

1430. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 19:04:52 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40195996$1_2@127.0.0.1>
Source record: 101101

Tdonaly wrote:

> Cecil wrote,
>>EZNEC seems to model inductive stubs just fine so I have no reason to
>>distrust it. EZNEC fails to give the same results for an inductive stub
>>Vs a lumped inductive reactance because it doesn't model real-world
>>coils. It will not model Kraus' phase-reversing coil and gives erroneous
>>results when an antenna using phase-reversing coils is modeled. I have
>>the EZNEC files that demonstrate that fact if you would like to have them.
>>
> Cecil, you can't even give a coherent explanation of how or why Kraus
> "phase reversing coil" works, or how it relates to Wes' work. I would
> expect any coil would work between two half-wave dipoles, but maybe not
> at the frequencies you expect, and certainly not just because Kraus
> said so.

According to Kraus, his phase-reversing coil can be thought of as 1/2WL
of wire coiled into an inductance. Ideally, that makes the phase of the
current the same on both sides of the coil instead of opposite as it
would be if the coil was not there.

Tom, do you understand self-resonance? The coil between the two half-wave
elements must be self-resonant at the frequency for which the elements
are 1/2WL. A 1/2WL stub performs that function perfectly according to
EZNEC. But there is *NO* value of inductive reactance in EZNEC that will
produce the same effect as that stub. Would you like a copy of those
EZNEC files? Would you like for me to post them on my web page?
--
73, Cecil, W5DXP

1431. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 19:07:08 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <admi10lngen7589lj4ckedmtmolfbmgt2v@4ax.com>
Source record: 101102

On Thu, 29 Jan 2004 12:52:25 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

|Wes Stewart wrote:
|
|> On Thu, 29 Jan 2004 10:00:38 -0600, Cecil Moore
|> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
|>
|> |Wes Stewart wrote:
|> |> Sorry, I've taken all of the jabs at this tarbaby that I care to. I
|> |> spent a lot of time preparing the paper that I published and it
|> |> "reflects reality" as I see it, until proven otherwise.
|> |
|> |What is the name of your paper, Wes? I don't remember you
|> |mentioning it before. All I have seen from your postings is
|> |.pdf files of the work of others.
|>
|> I began this thread with a pointer to:
|> http://www.qsl.net/n7ws/Loaded%20antennas.htm
|
|A quick scan of your article produces nothing new.

Fine.

Then this thread is closed.

1432. New Program. Receiving only antennas + Unun.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 19:17:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvbm84$2go$1@titan.btinternet.com>
Source record: 101104

At a transmitting station a vertical whip or random wire antenna is
occasionally used as an omnidirectional, multi-band receiving only antenna .
SW listeners often use short or random wire antennas.

At LF and HF receiver input impedance is often very uncertain. It is however
very uncritical.

Considering signal to noise ratio, especially for man-made noise, it is
seldom necessary to match antenna impedance to receiver impedance.
Signal+noise levels are high enough to be out of control of the operator
once adequate receiver gain is available - as it usually is.

This new program, UNUN_1, for a given signal field strength in the vicinity
of the antenna, estimates receiver input volts versus antenna height or
length and frequency from 0.05 to 30 MHz.

The circuit consists of antenna whip or wire, plus 1:1 or 9:1 un-un (balun),
plus coax cable, plus preselector, plus receiver with a choice of input
impedances. Antenna length extends up 1/3rd wavelenghts beyond which
behaviour ceases to change.

Assistance is given with ground connection loss resistance and estimation of
field strength to be expected from various signal sources. It will be
appreciated results will be crude. But in the absence of any information
whatsover, any information on the behaviour of antennas versus length and
frequency will be useful to gurus, novices and short-wave listeners.

Download in a few seconds program UNUN_1 from website below and amuse
yourselves immediately. (It is the last in the website list)

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

1433. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 19:25:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40195e9c_2@127.0.0.1>
Source record: 101105

Wes Stewart wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> |A quick scan of your article produces nothing new.
>
> Fine. Then this thread is closed.

It would be nice to know what you think I have said
that you are arguing against. It is no surprise that
a current maximum point can be located inside a coil.
That's probably why W8JI got equal magnitudes of
currents at each end of his coil during one of his
experiments. Adjust your model until maximum current
occurs at the feedpoint and then take a look at the
currents in and out of the coil.
--
73, Cecil, W5DXP

1434. Re: New Program. Receiving only antennas + Unun.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 20:12:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvbpejbmm1@sparta.btinternet.com>
Source record: 101106

Damn! damn! damn! damn! damn!

The name of the new program is WHIP_1

It is NOT Unun_1

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:bvbm84$2go$1@titan.btinternet.com...
>
> At a transmitting station a vertical whip or random wire antenna is
> occasionally used as an omnidirectional, multi-band receiving only antenna
.
> SW listeners often use short or random wire antennas.
>
> At LF and HF receiver input impedance is often very uncertain. It is
however
> very uncritical.
>
> Considering signal to noise ratio, especially for man-made noise, it is
> seldom necessary to match antenna impedance to receiver impedance.
> Signal+noise levels are high enough to be out of control of the operator
> once adequate receiver gain is available - as it usually is.
>
> This new program, UNUN_1, for a given signal field strength in the
vicinity
> of the antenna, estimates receiver input volts versus antenna height or
> length and frequency from 0.05 to 30 MHz.
>
> The circuit consists of antenna whip or wire, plus 1:1 or 9:1 un-un
(balun),
> plus coax cable, plus preselector, plus receiver with a choice of input
> impedances. Antenna length extends up 1/3rd wavelenghts beyond which
> behaviour ceases to change.
>
> Assistance is given with ground connection loss resistance and estimation
of
> field strength to be expected from various signal sources. It will be
> appreciated results will be crude. But in the absence of any information
> whatsover, any information on the behaviour of antennas versus length and

> frequency will be useful to gurus, novices and short-wave listeners.
>
> Download in a few seconds program UNUN_1 from website below and amuse
> yourselves immediately. (It is the last in the website list)
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

1435. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 20:33:27 UTC
From: tdonaly@aol.com
Message-ID: <20040129153327.28349.00001038@mb-m15.aol.com>
Source record: 101107

Cecil wrote,
>
>Dan Richardson < wrote:
>
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>I haven't been paying attention.
>>
>> Obviously
>
>The original posting made no assertions and was simply a URL
>which didn't respond when I tried to access it. The subsequent
>postings seemed to be concerned with radiation resistance so I
>didn't even read them. How does radiation resistance affect the
>loading coil discussion? It has already been proven that EZNEC's
>lumped circuit model doesn't work for Kraus' real world loading
>coils. What else is there to say?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

A lot. Besides, it hasn't been proven, at least not by you, that
Kraus' loading coils work the way you seem to think they do.
73,
Tom Donaly, KA6RUH

1436. SWL Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 20:40:31 UTC
From: JEFF UK <Birdnbloke@btopenworld.com>
Message-ID: <bvbr3uhic1@hercules.btinternet.com>
Source record: 101108

Hi.
Has any body any simple balun designs for a SWL long wire ?
I made a 9:1 transformer at the weekend, signals were improved, noise was down.
I was wondering if there was any thing better ?
I am not even sure what a 9:1 is and whether its the right one for the job ?
The greatest improvements were on 20mtrs.
How can i improve say 80mtrs ?
I use a 20mtr long wire, coax feed , earthed with a earth rod 10mtrs from the house.
All advice welcome
Regards
Jeff

1437. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 20:48:37 UTC
From: tdonaly@aol.com
Message-ID: <20040129154837.28349.00001040@mb-m15.aol.com>
Source record: 101109

Cecil wrote,
>
>Wes Stewart wrote:
>
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>> |A quick scan of your article produces nothing new.
>>
>> Fine. Then this thread is closed.
>
>It would be nice to know what you think I have said
>that you are arguing against. It is no surprise that
>a current maximum point can be located inside a coil.
>That's probably why W8JI got equal magnitudes of
>currents at each end of his coil during one of his
>experiments. Adjust your model until maximum current
>occurs at the feedpoint and then take a look at the
>currents in and out of the coil.
>--
>73, Cecil, W5DXP
>

I don't think anyone is going to fall for your attempt to make
another 500 post rant, Cecil. Adjust the model yourself,
if you think that's what it will show, and put the results on
your website.
73,
Tom Donaly, KA6RUH

1438. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 20:54:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvbrta$k30$1@hercules.btinternet.com>
Source record: 101110

What the whole damn lot of you have forgotten is the electromagnetic coupling which occurs between the antenna wire sections on either side of the phasing coils, especially when the adjacent wire sections are supposed to be in anti-phase with each other.

1439. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 21:10:40 UTC
From: tdonaly@aol.com
Message-ID: <20040129161040.28349.00001043@mb-m15.aol.com>
Source record: 101111

Cecil wrote,
>
>According to Kraus, his phase-reversing coil can be thought of as 1/2WL
>of wire coiled into an inductance. Ideally, that makes the phase of the
>current the same on both sides of the coil instead of opposite as it
>would be if the coil was not there.
>
>Tom, do you understand self-resonance? The coil between the two half-wave
>elements must be self-resonant at the frequency for which the elements
>are 1/2WL. A 1/2WL stub performs that function perfectly according to
>EZNEC. But there is *NO* value of inductive reactance in EZNEC that will
>produce the same effect as that stub. Would you like a copy of those
>EZNEC files? Would you like for me to post them on my web page?
>--
>73, Cecil, W5DXP
>

If Kraus really believes that, he's as ignorant as you are. A stub is
not the same as a lumped-component tank circuit. Do the math.
By the way, Cecil, I'm surprised at you. Have you tried *EVERY*
value of inductive reactance in EZNEC? I suspect, though, that the
reason there is no value of inductive reactance that will do what a
stub does at the frequency of interest is that it's impossible due to
the principle of conservation of charge. If you can figure out why I
think that is true, then you get a star by your name.
73,
Tom Donaly, KA6RUH

(PS Take your antenna, with its coil, apart, measure the resonant
frequency of each part, and get back to us with your results.)

1440. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 21:11:14 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4019773e_2@127.0.0.1>
Source record: 101112

Tdonaly wrote:
> Besides, it hasn't been proven, at least not by you, that
> Kraus' loading coils work the way you seem to think they do.

Kraus' phase-reversing coils work the way he says they do.
A high impedance trap blocks current if it is looking into
a low impedance because it is a high impedance. But if it
is looking into a high impedance, like a 1/2WL element, it
simply reverses the phase of the current, like a quarter-wave
shorted series stub. Would you like me to send you the EZNEC
files that demonstrate the phase reversal using stubs or
multiple sources?
--
73, Cecil, W5DXP

1441. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 21:26:44 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40197ae3_2@127.0.0.1>
Source record: 101113

Tdonaly wrote:
> Adjust the model yourself,
> if you think that's what it will show, and put the results on
> your website.

Unfortunately, I don't have the modeling software that Wes is using. And I have already demonstrated the effect using inductive loading stubs modeled with EZNEC.

Reg has already said that real-world coils with Ls, Cs, & Rs, can be treated as transmission lines. Rhea's paper on a new solenoid model agrees with Reg. Have you ever seen a transmission line less than 1/2WL long where the current-in is equal to the current-out when there are standing waves present? Even in a transmission line without reflections, the current-in is never equal to the current-out in magnitude and phase except for lossless lines at the N*wavelength points.

Most of this stuff is common sense for anyone who thinks that reality should dictate the model, not vice versa. Einstein once said that all our models are flawed.
--
73, Cecil, W5DXP

1442. Who is/are the criminals? Was RE: Amateur Donations Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 21:31:58 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <iZeSb.178159$I06.1828319@attbi_s01>
Source record: 101114

Cecil Moore wrote:

The police simply
> ignored the hundreds of of criminals like me who were smoking pot
> while waiting in line for a rock concert.
Hey Cecil, ambiguous statement!

Who is waiting in line? You, You and the Cops, or the Cops? :-)

Register People NOT Guns!!

People kill people!!

TROLLING

1443. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 21:41:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40197eb7_2@127.0.0.1>
Source record: 101115

Tdonaly wrote:
> If Kraus really believes that, he's as ignorant as you are.

No chance that Kraus could be right and you be wrong? :-)
Please read Kraus' book, Tom, and get back to us. Richard H.
has the book and has verified what I have posted about it.

> A stub is not the same as a lumped-component tank circuit.

An inductive stub can perform a similar function to an inductor.
In some resonant applications, a 1/4WL shorted stub can perform
a similar function to a tank circuit, trap, or self-resonant
inductor.

> By the way, Cecil, I'm surprised at you. Have you tried *EVERY*
> value of inductive reactance in EZNEC?

Enough values to see the trend. The lumped inductive reactances in
EZNEC never reverse the phase of the current. As the lumped inductive
reactance is increased on the phased array application, all that
happens is the current is reduced in magnitude. That's not the way
the real world works. Would you like a copy of those EZNEC files?
--
73, Cecil, W5DXP

1444. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 21:58:53 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4019821D.77E52AEC@uci.edu>
Source record: 101116

Reg Edwards wrote:
>
> What the whole damn lot of you have forgotten is the electromagnetic
> coupling which occurs between the antenna wire sections on either side of
> the phasing coils, especially when the adjacent wire sections are supposed
> to be in anti-phase with each other.

Yes, but soon we'll all have forgotten more than you ever knew. ;-)

73 de ac6xg

1445. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 22:29:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k12j109up9lhfulpq8a8i34m9ocvv5fpml@4ax.com>
Source record: 101117

On Thu, 29 Jan 2004 15:26:44 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Einstein once
>said that all our models are flawed.
>--
>73, Cecil, W5DXP

Maybe because his browser couldn't open pages, and pdf wouldn't work
for him.

Or was that Galileo?

Hi Wes,

I am glad you aren't spinning this out like Roy used to. I got tired
of those "I'm outta here" responses linked down the page like
dominoes.

73's
Richard Clark, KB7QHC

1446. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 22:39:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tg2j1050meded0mehlpeuod6csmujehq0t@4ax.com>
Source record: 101118

On 29 Jan 2004 05:45:02 -0800, mlori@ieee.org (Maurizio) wrote:

>Hi Richard,
>I know that some studies have been done in the past using NEC4 to find
>the ground wave/space wave fields, but my primary interest is in the
>near zone modelling of such MF antennas, in particular in presence of
>non-flat ground.
>The scope is to make a tool to evaluate the radiated fields in
>inhabited regions with limits in the maximum field amplitude.
>A tool dedicated to this task would be very useful for the site
>evaluation.
>
>I have some idea on based on recent studies, but maybe (as often
>happen) that others have already done something interesting.
>
>Are these FCC resources dealing with such issues ?
>And if so are they freely available?
>
>Thanks in advance
>
>
>Maurizio

Hi Maurizio,

Very few here have experience with the expensive NEC4, but I have heard of such capabilities. Sounds like you want to investigate near fields against complex terrain - that is going to take a lot of modeling and a lot of CPU horsepower.

I am sure we would all be interested in the product of your effort.

The FCC does not like complexity, and as such you find a very common and ordinary sameness to nearly every installation; unless they happen to have a downtown location elevated above the street (there is one like that in Spokane WA). Even there, the station conformed to the slavish 120 radials strung out to neighboring buildings.

73's
Richard Clark, KB7QHC

1447. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 22:44:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvc2csaqi1@hercules.btinternet.com>
Source record: 101019

Cec sez > Kraus . . . .
==========
Still worshipping Kraus then Ces? ;o)

1448. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 23:08:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4019931c$2_5@corp.newsgroups.com>
Source record: 101020

Reg Edwards wrote:
> Cec sez > Kraus . . . .
> ==========
> Still worshipping Kraus then Ces? ;o)

Not worshipping, Reg, just respecting. He's one of the few
references I have for BBQ'ing those sacred cows.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1449. Re: SWL Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-29 23:52:15 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40199CAF.2AD6DFA9@cwis.net>
Source record: 101022

Jeff,
For 80 meters, try a wire about 120 - 130 feet long. Feed
it in the center and you won't need a balun.
'Doc

1450. Re: Balun for PI network antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 00:03:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvc701jih1@hercules.btinternet.com>
Source record: 101023

<kashe@rahul.net> wrote in message
news:ajr0105j4r434h0tskjkfsr2nnh2120svl@4ax.com...
> On Thu, 22 Jan 2004 15:30:52 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >Figure-of-eight . . . .
> >
> >Two circles stuck together. Outline of plastic insulation surrounding a
> >pair of close-spaced wires.
> >
> >Zip-cord ?
> >---
> >Reg
>
> Apparently because when you separate the two at the thin part
> at one end, you can just zip it apart easily as far as needed.
>
==========

There are two varieties. One lays down flat on a flat surface. The other
has a twist, a lay, in it.

Only the first should be used for baluns.

If either is described as 'zip-cord' then there is ambiguity. Which is why I
described describe the cord used for baluns as 'figure of eight'. But I
suppose an ambiguity still remains.

Reg.

1451. Re: Antenna Rotator problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 00:46:07 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <NeOdnX_mMa9JBoTd4p2dnA@ctc.net>
Source record: 101021

> Hi all, on my TV/scanner/Fm antenna stack I have a problem, Im using
> an old channel master rotator and it does not "hold" the antenna from
> rotating in high wind. Are the "brakes" burnt out on it? Is there an
> easy repair? or should I just buy a new unit.

The unit probably does not have any breaks on it at all. It depends on the gear ratio to keep it from turning. Some of the antennas have a worm gear that is more resistante to turning in the wind. YOu have to get up into the higher dollar rotators before you will get one with a break.

1452. Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 02:04:40 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <101ji8h40hhmae7@corp.supernews.com>
Source record: 101030

I am planning on putting up a ground mounted vertical for 40 and 80 meters. Somewhere between 70-90 ft tall
and insulated from the ground. The antenna will be about 275 ft from the shack. My question: is it advisable to feed a vertical with open wire feeder? I am thinking it would work ok either directly or through a balun on one or each end of the feedline, but how does one keep the RF from the radiator from unbalancing the line? Or would it just tend to hit both sides of the line and not upset the balance?

Doug, N4IJ

1453. Want Universal Tower Sections

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 02:09:36 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <101ji8jcrt2t8f1@corp.supernews.com>
Source record: 101031

I am looking for a few of the smaller 11" or 14", etc
sections for the Universal Aluminum tower.

Doug, N4IJ
Virginia

1454. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 02:10:08 UTC
From: tdonaly@aol.com
Message-ID: <20040129211008.22792.00001120@mb-m18.aol.com>
Source record: 101024

Reg wrote,
>
>What the whole damn lot of you have forgotten is the electromagnetic
>coupling which occurs between the antenna wire sections on either side of
>the phasing coils, especially when the adjacent wire sections are supposed
>to be in anti-phase with each other.
>

Absolutely correct. No analysis is complete without taking that into account.
I was hoping no one would bring that up, however, since I've
been having too much fun goring Cecil's rather fragile ox.
73,
Tom Donaly, KA6RUH

1455. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 02:14:42 UTC
From: tdonaly@aol.com
Message-ID: <20040129211442.22792.00001121@mb-m18.aol.com>
Source record: 101025

Cecil wrote,
>
>Tdonaly wrote:
>> Besides, it hasn't been proven, at least not by you, that
>> Kraus' loading coils work the way you seem to think they do.
>
>Kraus' phase-reversing coils work the way he says they do.
>A high impedance trap blocks current if it is looking into
>a low impedance because it is a high impedance. But if it
>is looking into a high impedance, like a 1/2WL element, it
>simply reverses the phase of the current, like a quarter-wave
>shorted series stub. Would you like me to send you the EZNEC
>files that demonstrate the phase reversal using stubs or
>multiple sources?
>--
>73, Cecil, W5DXP
>

Better yet, Cecil, show me a mathematical analysis. It doesn't have to be rigorous - you can wave your hands if you want to - but it does have to make sense. Ah, how wonderfully easy it would be if only your ideas were true.
73,
Tom Donaly, KA6RUH

1456. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 02:17:16 UTC
From: tdonaly@aol.com
Message-ID: <20040129211716.22792.00001123@mb-m18.aol.com>
Source record: 101026

Reg wrote,
>
>Cec sez > Kraus . . . .
>==================
>Still worshipping Kraus then Ces? ;o)
>
>

He can't work out the proofs himself so he has to
appeal to a higher authority and hope it all comes out
right.
73,
Tom Donaly, KA6RUH

1457. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 02:19:04 UTC
From: Bob McConnell <rmcconne@NOSPAM.lightlink.com>
Message-ID: <mtej10dssbprsedhgle075gppifiq7p2ln@4ax.com>
Source record: 101027
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Jim,

I've been curious about this since I first saw your response. Who's
left field have you been playing in?

If you really want the ham license to mean something, forget code,
voice, rtty, packet or any other mode, obsolete or current. Require
everyone to pass an oral exam in front of an FCC field engineer which
includes assembling a QRP transceiver from a pile of parts on the
desk, a soldering iron, wire cutters and a couple of terminal strips..
That's the only way to bring respectability back into the hobby.
Anything less is no more than a super CB license.

<end sarcasm>

The only requirement for a ham license should be the ambition to study
enough to pass the test. The ability to use an obsolete mode should
have nothing to do with it. Of course then you end up with people with
no respect for the rules, no courtesy or no manners, and that might
even disagree with you. But how is that different from what we have
now?

Bob McConnell
N2SPP

On Sun, 25 Jan 2004 14:50:52 -0800, "Jim" <NN7K@Reno.Rmci.Net> wrote:

>Yeh, BUT-- Moby, Michael Jackson, and, Eminem, and Bono, WITHOUT the degree
>(and, probably without even a High School deploma)! are Beating your son,
>meanwiile,
> Former ENRON accountants, are running circles around your daughter! Shall
>we sink
>ALL STANDARDS? (Got an idea: Lets legalize BANK ROBBERY, as those that
>commit it
>need the dough for their attorneys-- too many murders? simply legalize them
>as an act of
>MERCY!! , ect. Why have ANY standards?? Do your own thing! Granney (at
>age 56)?
>yeh, send her over Niagra Falls? Yeh that the ticket! When you fail to
>jump over the bar,
>lets just eliminate the BAR!! That (Unfortunatly) is what has been going
>on for too many years!
>Jim NN7K
>
>

>
>"Bob wrote in message news:as5610dhs97aupcrd5f8a2ts2ilj3qp0cf@4ax.com...
>> I have very little problem with my manhood. I have a son with a Master
>> of Music (Education) that is a respected teacher. He has a lovely wife
>> and three wonderful children. I have a daughter with an accounting
>> degree that manages a billing department responsible for preparing
>> invoices totalling nearly $30M last year. I have another son at Fort
>> Brag NC in special forces training, and a third son learning the
>> construction business from the ground up. I survived 2 trips to
>> Vietnam on a US Navy destroyer. My wife (also a Navy veteran) and I
>> are approaching our 31st wedding aniversary. Any of these
>> acomplishments are far and away more important than any award or
>> recognition available from amateur radio.
>>
>> My problem, due to a number of hams of all ages I have met both in
>> this area and elsewhere, are those that use their ticket, awards,
>> contest status or shack as their primary means of identifying who they
>> are and how necessary they are to the hobby. Maybe they never learned
>> what is important, or just don't have a life. Maybe that's what all
>> Ivy Leaguers are like (most of these are from Cornell). But they sure
>> seem to be in the majority in this hobby. And it appears that most of
>> what the ARRL has done in the past several decades was simply to
>> encourage them with more wallpaper to brag about.
>>
>> Yes, I know there are others out there that are more like you claim to
>> be, and without them, this hobby probably would have died out years
>> ago. But around here they are few and far between. I know of at least
>> two clubs in this area that don't have any. (Actually, one of them did
>> have two, but one got called up and sent to Iraq two years ago. Then
>> the other got frustrated and left the club.) Neither of those clubs
>> does any public service events, offer any classes or do any
>> demonstrations or open houses. Their planning for field day sounds
>> more like preparation for war, and outsiders are not welcome. They are
>> so self centered, that they won't even talk to newcomers until they
>> know how they stack up. That means they still won't talk to some of us
>> that have intermittantly attended their meetings for over three years.
>> I know of three hams that flat refuse to attend their meetings any
>> more. One of them sold all of his VHF and UHF gear so he wouldn't even
>> have to listen to them on the air. He focuses entirely on HF DX.
>>
>> I hope conditions are better in your area.
>>
>> Bob McConnell
>> N2SPP
>>
>> On Fri, 23 Jan 2004 20:13:37 -0500, "W4JLE" <w4jle(remove to
>> reply)@pbtcomm.net> wrote:
>>
>> >I disagree with your premise Bob, I hope that you are not so insecure
>with

>> >your manhood that you would find the success of others a threat.
>> >
>> >Many of us older farts strive for excellence, we use various means to
>> >measure how we compare to others. Do not confuse pride in accomplishment
>> >with ego.
>> >
>> >In spite of what the feel good types tell you, competition is a basic
>human
>> >instinct. Keeping score is the way to quantify the competition.
>> >
>> >To distain the accomplishments of others as "ego" is both supercilious
>and
>> >lacking in the basic understanding of the human condition.
>> >
>> >"Bob McConnell" <rmcconne@NOSPAM.lightlink.com> wrote in message
>> >news:ofg3109bbbqfdm9ip1r6n8mgnkcamr0ou6@4ax.com...
>> >> On Wed, 21 Jan 2004 18:19:04 -0600, Cecil Moore
>> >
>> >> Unfortunately, there are far too many for whom the value of their
>> >> license is measured in how many people it allows them to look down
>> >> their noses at. Their only motivation for moving up was so they could
>> >> gloat over how much better they are than anyone that isn't up to their
>> >> standards. This is also the primary reason that contests and awards
>> >> are rubbed in our faces in most of the magazines and newsletters. This
>> >> is the crowd the ARRL has been cutivating for years, because they
>> >> don't care about advancing the state of the art, or building their own
>> >> equipment, helping others, or any of the other aspects of the hobby
>> >> that used to make it great. They simply want to buy the newest,
>> >> coolest, fanciest or most expensive rig to help them along on their
>> >> ego trip, which keeps the advertisers happy.
>> >>
>> >> Somebody let me know when QST no longer has any contests or award
>> >> notices in it. Then I *might* be interested in looking at it again.
>> >>
>> >> Bob McConnell
>> >> N2SPP
>> >>
>> >
>>
>

1458. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 02:31:33 UTC
From: tdonaly@aol.com
Message-ID: <20040129213133.22792.00001124@mb-m18.aol.com>
Source record: 101028

>
Reg wrote,
>Tdonaly wrote:
>> Adjust the model yourself,
>> if you think that's what it will show, and put the results on
>> your website.
>
>Unfortunately, I don't have the modeling software that Wes
>is using. And I have already demonstrated the effect using
>inductive loading stubs modeled with EZNEC.
>
>Reg has already said that real-world coils with Ls, Cs, & Rs,
>can be treated as transmission lines. Rhea's paper on a new
>solenoid model agrees with Reg. Have you ever seen a transmission
>line less than 1/2WL long where the current-in is equal to the
>current-out when there are standing waves present? Even in a
>transmission line without reflections, the current-in is never
>equal to the current-out in magnitude and phase except for
>lossless lines at the N*wavelength points.
>
>Most of this stuff is common sense for anyone who thinks that
>reality should dictate the model, not vice versa. Einstein once
>said that all our models are flawed.
>--
>73, Cecil, W5DXP
>
I know Reg has said that. He's not the first nor will he be the last.
That's not the only way to look at it, however, and I doubt if it's the
best under all circumstances. In order to show that an inductor can
be treated as a transmission line, in the way you want to do it, you
have to show that your inductor has an exponential current gradient
along its length when it's terminated in a certain impedance. I don't
think you've thought much about how that can be done. Yuri
says he's going to try to show something of the sort using fish tank
thermometers. At least he's making the attempt.
73,
Tom Donaly, KA6RUH

1459. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 03:05:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4019cada_3@corp.newsgroups.com>
Source record: 101029

Tdonaly wrote:
> Absolutely correct. No analysis is complete without taking that into account.
> I was hoping no one would bring that up, however, since I've
> been having too much fun goring Cecil's rather fragile ox.

Don't you mean Kraus' "rather fragile ox"?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1460. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 03:12:21 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4019cc58$1_3@corp.newsgroups.com>
Source record: 101032

Tdonaly wrote:

> Cecil wrote,
> Better yet, Cecil, show me a mathematical analysis. It doesn't have to
> be rigorous - you can wave your hands if you want to - but it does have
> to make sense. Ah, how wonderfully easy it would be if only your ideas were
> true.

They are not my ideas, Tom. They come directly from page 824 of _Antennas_
For_All_Applications_, by Kraus and Marhefka, 3rd edition. Rather than me
wasting my time proving to you that Kraus is correct, how about you proving
that Kraus is wrong?

Or better yet - take the Diamond NR72B and prove that the phase-reversing
coil doesn't work on 70 cm. Maybe you can sue Diamond for fraud.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1461. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 03:17:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4019cd88$1_3@corp.newsgroups.com>
Source record: 101033

Tdonaly wrote:
> He can't work out the proofs himself so he has to
> appeal to a higher authority and hope it all comes out
> right.

I hope that Kraus is right. You hope that Kraus is wrong.
Guess which hope has the highest probability of being true?
I have presented a reference with which I agree. Now it is
your turn to present a reference that disagrees with Kraus.
Good luck on that one.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1462. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 03:32:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4019d12f_3@corp.newsgroups.com>
Source record: 101034

Tdonaly wrote:
> In order to show that an inductor can
> be treated as a transmission line, in the way you want to do it, you
> have to show that your inductor has an exponential current gradient
> along its length when it's terminated in a certain impedance.

All I have to do is point to W7EL's and W8JI's measurements that
show a current gradient along a real world loading coil in a standing-
wave antenna. The current gradient is illustrated by Kraus on page
824 of _Antennas_For_All_Applications_, 3rd edition.

You are failing to take into account that the net current in a standing-
wave antenna is the phasor sum of the forward current and reflected
current, i.e. the earth is not flat.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1463. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 03:40:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4019d305_3@corp.newsgroups.com>
Source record: 101035

DOUGLAS SNOWDEN wrote:

> I am planning on putting up a ground mounted vertical for 40 and 80 meters.
> Somewhere between 70-90 ft tall
> and insulated from the ground. The antenna will be about 275 ft from the
> shack. My question: is it advisable to feed a vertical with open wire
> feeder? I am thinking it would work ok either directly or through a balun
> on one or each end of the feedline, but how does one keep the RF from the
> radiator from unbalancing the line? Or would it just tend to hit both sides
> of the line and not upset the balance?

I would make the last 50 ft of transmission line to the vertical be coax and
install a good balun/matching network between the open-wire and coax.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1464. Outdoor omni 2m vertical- freezing rain

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 03:56:01 UTC
From: GrandPa Munster <house@1313.com>
Message-ID: <lBkSb.180195$I06.1919578@attbi_s01>
Source record: 101036

What form of outdoor 2m omni vertical antenna would you expect to be affected the least by rotten weather like freezing rain?

My guess would be a sleeve dipole encased in a sealed PVC pipe, but thats just a WAGuess without any data to back it up.

Any and all opinions appreciated.

1465. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 04:55:54 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4019E3DA.327A12CB@cwis.net>
Source record: 101037

Doug,
I would think it would just depends on if you plan on
using some kind of matching/tuning system at the base of
the tower. If you do, then I'd use coax to the tower.
But you can do the same thing with ladder line, I'd just
find it easier to 'string' (actually, bury) the coax.
As for the RF 'messing' with the ladder line, it probably
won't make a lot of difference.
'Doc

1466. Re: Outdoor omni 2m vertical- freezing rain

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 05:53:42 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <GjmSb.12427$Jk1.3096@newssvr23.news.prodigy.com>
Source record: 101038

"GrandPa Munster" <house@1313.com> wrote in message
news:lBkSb.180195$I06.1919578@attbi_s01...
>
> What form of outdoor 2m omni vertical antenna would you expect to be
> affected the least by rotten weather like freezing rain?

A copper-pipe J-pole with some heating
method... Christmas lights inside, maybe?

--
Steve
KI5YG
.

1467. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 06:34:19 UTC
From: richardharrison@webtv.net
Message-ID: <7293-4019FAEB-273@storefull-3256.bay.webtv.net>
Source record: 101040

Cecil, W5DXP wrote:
"Page 824"

Yes. Thank you very much. I had lost track and seemed not to be able to find the item again.

The illustration is Figure 23-21 (b). Four in-phase 1/2-wave elements with phase-reversing coils. Kraus says:
"Here the elements present a high impedance to the coil which may be resonated without an external capacitance due to its distributed capacitance. A phase reversal is about 180-degrees.

Best regards, Richard Harrison, KB5WZI

1468. All band antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 06:44:07 UTC
From: Scooter <peteppp@optushome.com.au>
Message-ID: <4019fd37$0$28869$afc38c87@news.optusnet.com.au>
Source record: 101039

Has anybody tried one of these antennas?
Last page.

http://dxantennas.com

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.574 / Virus Database: 364 - Release Date: 29/01/2004

1469. Re: SWL Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 07:17:01 UTC
From: JEFF UK <Birdnbloke@btopenworld.com>
Message-ID: <bvd0ddcm1@titan.btinternet.com>
Source record: 101041

Would that be so each half is 60- 65 feet long ?
And is 75 ohm tv coax ok to feed it ?
Cheers
Jeff

"'Doc" <w5lz@cwis.net> wrote in message news:40199CAF.2AD6DFA9@cwis.net...
> Jeff,
> For 80 meters, try a wire about 120 - 130 feet long. Feed
> it in the center and you won't need a balun.
> 'Doc

1470. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 09:10:33 UTC
From: K7JEB <k7jeb.remove_this@qsl.net>
Message-ID: <udpSb.13355$tP1.11645@fed1read07>
Source record: 101042

DOUGLAS SNOWDEN, N4IJ, wrote:

> I am planning on putting up a ground mounted vertical for
> 40 and 80 meters. Somewhere between 70-90 ft tall and
> insulated from the ground. The antenna will be about
> 275 ft from the shack. My question: is it advisable to
> feed a vertical with open wire feeder?

Consider using an UNBALANCED, open-wire line. It would consist
of three wires fairly close together with uniform spacing
between them. The center wire is "hot" and the outer two
are "ground". At the antenna, the two ground wires connect
to the ground radials and the center one connects to the
vertical radiator. At the shack end, your matchbox would
be configured to feed a "longwire" with the center wire
connecting to the "longwire" terminal and the two ground
wires connecting to the matchbox case (and shack ground).

No matching networks or baluns are needed at the antenna.
The line has a fairly high SWR on it, but also has low loss
and thus maintains efficiency. All matching is done in
the shack under your direct control.

The downside is that you would have to make the line yourself
out of ordinary house wire and plexiglass spacers and support
it off the ground on poles. If you used commercially available
ladder line, you would have to support it anyway, so that's
pretty much a wash.

> I am thinking it would work ok either directly or through a balun
> on one or each end of the feedline, but how does one keep the RF from the
> radiator from unbalancing the line? Or would it just tend to hit both sides
> of the line and not upset the balance?

The unbalancing issue goes away completely with this kind
of line. This scheme was widely used in broadcasting in
the 30's and 40's but fell out of favor because it required
a bit more maintenance than buried hardline.

Jim, K7JEB
Glendale, AZ

1471. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 10:16:09 UTC
From: mlori@ieee.org
Message-ID: <ddff27eb.0401300216.767d5d6@posting.google.com>
Source record: 101043

Hi Richard,
my feeling is that in the past some studies have tried to find out the structure and relative strenght of the ground/space wave fields.
Experience has then given rules to evaluate the losses due to the high reactive fields near the antenna with the lossy ground (i have seen a paper using a 6 dB factor to take into account antenna mismatch and such nearby losses).
It maybe that this is almost all that has been done.
Do you agree?

Maurizio

1472. Re: SWL Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 10:16:13 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <401A2EED.D5D7A913@cwis.net>
Source record: 101044

Jeff,
Yes, 60 - 65 feet per side. As long as you aren't
transmitting,
75 ohm TV coax, or 50 ohm coax of almost any kind will work just
fine. Get it up as high as possible. If you have to 'bend' it
a
bit to make it fit your space, it shouldn't really affect things
very much. It may not be 'better' than what you're using now,
but
it will be different, so you should hear things you may not be
able
to hear now. Good luck...
'Doc

1473. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 11:43:37 UTC
From: "Dr. Daffodil Swain" <wa4jm@earthlink.net>
Message-ID: <JrrSb.2508$jH6.1218@newsread1.news.atl.earthlink.net>
Source record: 101045

Sounds like too much work! The loss of 50 Ohm feedline at 80 and 40 meters
isn't worth worrying about.

"K7JEB" <k7jeb.remove_this@qsl.net> wrote in message
news:udpSb.13355$tP1.11645@fed1read07...
> DOUGLAS SNOWDEN, N4IJ, wrote:
>
> > I am planning on putting up a ground mounted vertical for
> > 40 and 80 meters. Somewhere between 70-90 ft tall and
> > insulated from the ground. The antenna will be about
> > 275 ft from the shack. My question: is it advisable to
> > feed a vertical with open wire feeder?
>
> Consider using an UNBALANCED, open-wire line. It would consist
> of three wires fairly close together with uniform spacing
> between them. The center wire is "hot" and the outer two
> are "ground". At the antenna, the two ground wires connect
> to the ground radials and the center one connects to the
> vertical radiator. At the shack end, your matchbox would
> be configured to feed a "longwire" with the center wire
> connecting to the "longwire" terminal and the two ground
> wires connecting to the matchbox case (and shack ground).
>
> No matching networks or baluns are needed at the antenna.
> The line has a fairly high SWR on it, but also has low loss
> and thus maintains efficiency. All matching is done in
> the shack under your direct control.
>
> The downside is that you would have to make the line yourself
> out of ordinary house wire and plexiglass spacers and support
> it off the ground on poles. If you used commercially available
> ladder line, you would have to support it anyway, so that's
> pretty much a wash.
>
> > I am thinking it would work ok either directly or through a balun
> > on one or each end of the feedline, but how does one keep the RF from
the
> > radiator from unbalancing the line? Or would it just tend to hit both
sides
> > of the line and not upset the balance?
>
> The unbalancing issue goes away completely with this kind
> of line. This scheme was widely used in broadcasting in
> the 30's and 40's but fell out of favor because it required

> a bit more maintenance than buried hardline.
>
> Jim, K7JEB
> Glendale, AZ
>
>
>

1474. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 11:46:07 UTC
From: "Dr. Daffodil Swain" <wa4jm@earthlink.net>
Message-ID: <3urSb.2513$jH6.710@newsread1.news.atl.earthlink.net>
Source record: 101046
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

HUH? Most FCC "engineers" can't pass this test! They have EE's which have nothing to do with assembling QRP rigs. They don't teach soldering in school. Get a life.

"Bob McConnell" <rmcconne@NOSPAM.lightlink.com> wrote in message news:mtej10dssbprsedhgle075gppifiq7p2ln@4ax.com...
> Jim,
>
> I've been curious about this since I first saw your response. Who's
> left field have you been playing in?
>
> If you really want the ham license to mean something, forget code,
> voice, rtty, packet or any other mode, obsolete or current. Require
> everyone to pass an oral exam in front of an FCC field engineer which
> includes assembling a QRP transceiver from a pile of parts on the
> desk, a soldering iron, wire cutters and a couple of terminal strips..
> That's the only way to bring respectability back into the hobby.
> Anything less is no more than a super CB license.
>
> <end sarcasm>
>
> The only requirement for a ham license should be the ambition to study
> enough to pass the test. The ability to use an obsolete mode should
> have nothing to do with it. Of course then you end up with people with
> no respect for the rules, no courtesy or no manners, and that might
> even disagree with you. But how is that different from what we have
> now?
>
> Bob McConnell
> N2SPP
>
> On Sun, 25 Jan 2004 14:50:52 -0800, "Jim" <NN7K@Reno.Rmci.Net> wrote:
>
> >Yeh, BUT-- Moby, Michael Jackson, and, Eminem, and Bono, WITHOUT the
degree
> >(and, probably without even a High School deploma)! are Beating your
son,
> >meanwiile,
> > Former ENRON accountants, are running circles around your daughter!
Shall
> >we sink
> >ALL STANDARDS? (Got an idea: Lets legalize BANK ROBBERY, as those that
> >commit it

> >need the dough for their attorneys-- too many murders? simply legalize
them
> >as an act of
> >MERCY!! , ect. Why have ANY standards?? Do your own thing! Granney (at
> >age 56)?
> >yeh, send her over Niagra Falls? Yeh that the ticket! When you fail to
> >jump over the bar,
> >lets just eliminate the BAR!! That (Unfortunatly) is what has been
going
> >on for too many years!
> >Jim NN7K
> >
> >
> >
> >"Bob wrote in message news:as5610dhs97aupcrd5f8a2ts2ilj3qp0cf@4ax.com...
> >> I have very little problem with my manhood. I have a son with a Master
> >> of Music (Education) that is a respected teacher. He has a lovely wife
> >> and three wonderful children. I have a daughter with an accounting
> >> degree that manages a billing department responsible for preparing
> >> invoices totalling nearly $30M last year. I have another son at Fort
> >> Brag NC in special forces training, and a third son learning the
> >> construction business from the ground up. I survived 2 trips to
> >> Vietnam on a US Navy destroyer. My wife (also a Navy veteran) and I
> >> are approaching our 31st wedding aniversary. Any of these
> >> acomplishments are far and away more important than any award or
> >> recognition available from amateur radio.
> >>
> >> My problem, due to a number of hams of all ages I have met both in
> >> this area and elsewhere, are those that use their ticket, awards,
> >> contest status or shack as their primary means of identifying who they
> >> are and how necessary they are to the hobby. Maybe they never learned
> >> what is important, or just don't have a life. Maybe that's what all
> >> Ivy Leaguers are like (most of these are from Cornell). But they sure
> >> seem to be in the majority in this hobby. And it appears that most of
> >> what the ARRL has done in the past several decades was simply to
> >> encourage them with more wallpaper to brag about.
> >>
> >> Yes, I know there are others out there that are more like you claim to
> >> be, and without them, this hobby probably would have died out years
> >> ago. But around here they are few and far between. I know of at least
> >> two clubs in this area that don't have any. (Actually, one of them did
> >> have two, but one got called up and sent to Iraq two years ago. Then
> >> the other got frustrated and left the club.) Neither of those clubs
> >> does any public service events, offer any classes or do any
> >> demonstrations or open houses. Their planning for field day sounds
> >> more like preparation for war, and outsiders are not welcome. They are
> >> so self centered, that they won't even talk to newcomers until they
> >> know how they stack up. That means they still won't talk to some of us
> >> that have intermittantly attended their meetings for over three years.
> >> I know of three hams that flat refuse to attend their meetings any

> >> more. One of them sold all of his VHF and UHF gear so he wouldn't even
> >> have to listen to them on the air. He focuses entirely on HF DX.
> >>
> >> I hope conditions are better in your area.
> >>
> >> Bob McConnell
> >> N2SPP
> >>
> >> On Fri, 23 Jan 2004 20:13:37 -0500, "W4JLE" <w4jle(remove to
> >> reply)@pbtcomm.net> wrote:
> >>
> >> >I disagree with your premise Bob, I hope that you are not so insecure
> >with
> >> >your manhood that you would find the success of others a threat.
> >> >
> >> >Many of us older farts strive for excellence, we use various means to
> >> >measure how we compare to others. Do not confuse pride in
accomplishment
> >> >with ego.
> >> >
> >> >In spite of what the feel good types tell you, competition is a basic
> >human
> >> >instinct. Keeping score is the way to quantify the competition.
> >> >
> >> >To distain the accomplishments of others as "ego" is both supercilious
> >and
> >> >lacking in the basic understanding of the human condition.
> >> >
> >> >"Bob McConnell" <rmcconne@NOSPAM.lightlink.com> wrote in message
> >> >news:ofg3109bbbqfdm9ip1r6n8mgnkcamr0ou6@4ax.com...
> >> >> On Wed, 21 Jan 2004 18:19:04 -0600, Cecil Moore
> >> >
> >> >> Unfortunately, there are far too many for whom the value of their
> >> >> license is measured in how many people it allows them to look down
> >> >> their noses at. Their only motivation for moving up was so they
could
> >> >> gloat over how much better they are than anyone that isn't up to
their
> >> >> standards. This is also the primary reason that contests and awards
> >> >> are rubbed in our faces in most of the magazines and newsletters.
This
> >> >> is the crowd the ARRL has been cutivating for years, because they
> >> >> don't care about advancing the state of the art, or building their
own
> >> >> equipment, helping others, or any of the other aspects of the hobby
> >> >> that used to make it great. They simply want to buy the newest,
> >> >> coolest, fanciest or most expensive rig to help them along on their
> >> >> ego trip, which keeps the advertisers happy.
> >> >>
> >> >> Somebody let me know when QST no longer has any contests or award

> >> >> notices in it. Then I *might* be interested in looking at it again.
> >> >>
> >> >> Bob McConnell
> >> >> N2SPP
> >> >>
> >> >
> >>
> >
>

1475. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 11:49:57 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0401300349.7ef7ec8f@posting.google.com>
Source record: 101047

mlori@ieee.org (Maurizio) wrote in message
news:<ddff27eb.0401280339.5276dbea@posting.google.com>...
> Hi all,
> Is there anybody with some experience in MF antenna modelling with
> ground effect included (surface wave/space wave) etc. ?
> I have the need to find out if the NEC4 is able to modellize this type
> of antenna in a general environment and with which performance.
> Otherwise, I will have to find out alternative ways (FEM/...).

I see you come from Italy, and (for as far as I know) the Nec4 core is
not (yet) available for none US citizens due to export restrictions.

You could consider using the Nec2 core. However not directly capable
of modelling burried radial wires you can simulate them by using
radial wires located some .001-.005 wl above ground (See www.cebik.com
for detailed info about this subject).

When modeling structures on MF (or LF) however you should also be
carefull not to violate segment length restrictions due to the
relatively low frequency compared to structure size.

You could take a look at the 4nec2 freeware
(www.qsl.net/wb6tpu/swindex.html) to see if the nec2 core is usefull.
4nec2 also has provisions for generating and visualizing far-field
patterns in which the surface wave is included.

Greetings,
Arie Voors.

1476. FS: 1.2GHz YAGIS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 12:14:35 UTC
From: n2ion@aol.com
Message-ID: <20040130071435.18858.00001162@mb-m28.aol.com>
Source record: 101048

I HAVE FOR SALE, 4 KLM 1.2-44LBX YAGIS
EMAIL IF SERIOUSLY INTERESTED ONLY

1477. Physical size of radiating element?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 14:11:41 UTC
From: fazamy@aol.com
Message-ID: <20040130091141.18989.00001217@mb-m28.aol.com>
Source record: 101049

What is the physical length of the radiating element(s) of an fm band antenna broadcasting on 88.1 and 107.9?

What is the formula to figure this out?

KB2AMY

1478. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 14:15:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401a67e2$1_1@corp.newsgroups.com>
Source record: 101050

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "Page 824"
>
> Yes. Thank you very much. I had lost track and seemed not to be able to
> find the item again.

Those little sticky tabs solve the problem.

> The illustration is Figure 23-21 (b). Four in-phase 1/2-wave elements
> with phase-reversing coils. Kraus says:
> "Here the elements present a high impedance to the coil which may be
> resonated without an external capacitance due to its distributed
> capacitance. A phase reversal is about 180-degrees.

Thanks Richard, there are apparently still old wives
who believe that a coil cannot reverse the phase of the current
even though a shorted stub can. I'm going to post the current
magnitudes and phases for a number of 3/2WL configurations along
with the gains.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1479. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 14:18:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401a687b$1_1@corp.newsgroups.com>
Source record: 101051

K7JEB wrote:
> Consider using an UNBALANCED, open-wire line. It would consist
> of three wires fairly close together with uniform spacing
> between them. The center wire is "hot" and the outer two
> are "ground".

Hi Jim, what would be the range of Z0's possible with this configuration?
--
TNX & 73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1480. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 14:24:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401a69e7_1@corp.newsgroups.com>
Source record: 101052

Mike Coslo wrote:
> Well Richard, have you not heard of the famous aperture mask?
> Reduces the aperture of the telescope, and there are people that swear
> by them!
>
> And, they don't work either.

Mine works well to reduce the light from the moon to a comfortable
viewing level for my 18" diameter reflecting mirror.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1481. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 14:33:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401a6bf2$1_1@corp.newsgroups.com>
Source record: 101054

Dr. Daffodil Swain wrote:
> Sounds like too much work! The loss of 50 Ohm feedline at 80 and 40 meters
> isn't worth worrying about.

For 275 ft. of RG-58 with an SWR of 1:1 on 40m, one would lose
~half of one's power in the feedline. With an SWR of 10:1, one
would lose ~75% of one's power in the feedline.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1482. Re: SWL Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 14:34:06 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <kfqk1056ida2lvqcdg8qi59j0r28pttj5t@4ax.com>
Source record: 101053

On Thu, 29 Jan 2004 20:40:31 +0000 (UTC), "JEFF UK"
<Birdnbloke@btopenworld.com> wrote:

>Hi.
>Has any body any simple balun designs for a SWL long wire ?
>I made a 9:1 transformer at the weekend, signals were improved, noise was
>down.
>I was wondering if there was any thing better ?
>I am not even sure what a 9:1 is and whether its the right one for the job
>?
>The greatest improvements were on 20mtrs.
>How can i improve say 80mtrs ?
>I use a 20mtr long wire, coax feed , earthed with a earth rod 10mtrs from
>the house.
>All advice welcome

Jeff, the biggest reason for using a BalUn for SWL is if you are trying to isolate the antenna system from the local RF fields in your house. These fields can result from noisy light dimmers, to poorly shielded computers, to a noisy set of brushes on the blower for a furnace...

If you get lots of interference of this sort, then a BalUn might be appropriate. Otherwise, it's not worth the trouble.

Generally, this sort of interference is worst with those who have their short wave radios upstairs, throw a wire out of a window for an antenna, and use the electrical system ground as the counterpoise to their antenna.

However, if you install a dipole high in the air, away from your house, chances are you won't hear enough of a difference to make a BalUn worth using.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

1483. Re: Physical size of radiating element?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 14:52:54 UTC
From: David Robbins <noone@nowhere.com>
Message-ID: <4NudnUpGid5P8ofdRVn-vg@crocker.com>
Source record: 101055

"FAZAMY" <fazamy@aol.com> wrote in message
news:20040130091141.18989.00001217@mb-m28.aol.com...
> What is the physical length of the radiating element(s) of an fm band
antenna
> broadcasting on 88.1 and 107.9?
>
> What is the formula to figure this out?
>
> KB2AMY

any size they want to make it.

1484. Re: Physical size of radiating element?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 14:56:48 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <54sk10lh31f2d2k29907laahs31kae8jd2@4ax.com>
Source record: 101056

On 30 Jan 2004 14:11:41 GMT, fazamy@aol.com (FAZAMY) wrote:

|What is the physical length of the radiating element(s) of an fm band antenna
|broadcasting on 88.1 and 107.9?
|
|What is the formula to figure this out?

You're trolling, right?

1485. Re: Physical size of radiating element?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 15:29:59 UTC
From: Cambio <CAM@ripped.net>
Message-ID: <XLuSb.2131$IF1.436@fed1read01>
Source record: 101057

Depends on whether it is a dipole or some other configuration -- but for
dipoles -- see calculator at URL:
http://www.qsl.net/w4sat/calc.htm

Others at URL:
http://www.qsl.net/w4sat/antenna.htm

--
73 Cambio

"FAZAMY" <fazamy@aol.com> wrote in message
news:20040130091141.18989.00001217@mb-m28.aol.com...
> What is the physical length of the radiating element(s) of an fm band
antenna
> broadcasting on 88.1 and 107.9?
>
> What is the formula to figure this out?
>
> KB2AMY

1486. Adding a 2:1 balun to a multi-band dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 15:46:37 UTC
From: "Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET>
Message-ID: <101kv33ei9bl32c@corp.supernews.com>
Source record: 101058

I just completed the installation and tuning of a multiband inverted vee for 160, 80, and 75 meters. Essentially, the antenna consists of a center PVC insulator with 6 terminal posts (2 per band) and the three dipoles separated by wooden dowel-rod spreaders at spacings of about 6 inches. All three sets of wires are direct fed with one RG/8u.

I have adjusted the lengths of each antenna to move the resonant point to preferred frequencies for each band: 1.825 on 160, 3.525 on 80, and 3.775 on 75. However, at resonance the SWR on all antennas remains relatively high -- an MFJ259 analyzer says resonant SWRs are around 1.7-2.0:1 and characteristic impedances are 100 ohms or slightly higher. Is a 2:1 balun the solution, and which balun method? Seems to me I have the following choices:

1. A "balun kit" from someone like thewireman.com and build my own. This could be in either the form of a voltage or a current type -- which type would be best?

2. A coax balun in the form of a 1/4 wavelength of RGB/11u 75 ohm coax -- replacing a portion of the RG/8u feedline with RG/11u. But since I am using this for two bands... what length would offer the best compromise for both 80 and 160?

3. A coiled-coax balun which I have seen described as "about 16 turns of RG8x on 3 inch PVC stock".

All of these options are easily do-able, but which looks like the best route? Your opinions are welcome.

-larry
K8UT

1487. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 16:22:55 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40192dd8_2@newsfeed.slurp.net>
Source record: 101059

Balance woun't be the problem, Doug. The problem is that over that long a run, the feedline will radiate, and become a major part of the antenna system. The other problem is keeping the feedline far enough away from eveyerything else along that run, that could interact with it.

For such a long run with a feeder at ground-level, you might want to investigate low-loss coax...

- Mike KI6PR
El Rancho R.F., CA

"DOUGLAS SNOWDEN" wrote
> I am planning on putting up a ground mounted vertical for 40 and 80 meters.
> Somewhere between 70-90 ft tall
> and insulated from the ground. The antenna will be about 275 ft from the
> shack. My question: is it advisable to feed a vertical with open wire
> feeder? I am thinking it would work ok either directly or through a balun
> on one or each end of the feedline, but how does one keep the RF from the
> radiator from unbalancing the line? Or would it just tend to hit both sides
> of the line and not upset the balance?
>
> Doug, N4IJ
>
>

1488. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 16:55:21 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401a8cc3_2@127.0.0.1>
Source record: 101060

Mikey wrote:
> Balance woun't be the problem, Doug. The problem is that over that long a
> run, the feedline will radiate, and become a major part of the antenna
> system.

The reason that the feedline radiates *is* unbalanced currents.
If the currents can be balanced, the feedline will not radiate
appreciably assuming good engineering practices are followed.
--
73, Cecil, W5DXP

1489. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 17:44:49 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <bve522$mv1$1@carabinieri.cs.interbusiness.it>
Source record: 101061

"Massi" <msignorini@calearotlc.com> ha scritto nel messaggio
news:bvaaoe$c50$1@fata.cs.interbusiness.it...
> Thanks a lot for all the answers,
> I'm doing some tests in laboratory with a network analyzer and will let
you
> know asap what I will find.
> Massimo
>
I have done some tests with trasmission line builded in FR4 (30cm long, 2cm
wide), according to them I have the following notes:
VSWR MICROSTRIP 50 OHM
13.56 MHz => 1.0129
1 GHz => 1.0457
3 GHz => 1.0994
VSWR COPLANAR WAVEGUIDE 50 OHM
13.56 MHz => 1.0250
1 GHz => 1.1698
3 GHz => 1.3500
VSWR STRIPLINE 50 OHM
13.56 MHz => 1.0315
1 GHz => 1.0269
3 GHz => 1.2665

LOSS MICROSTRIP 50 OHM
13.56 MHz => - 0.03360 dB
1 GHz => - 0.83380 dB
3 GHz => - 2.40590 dB
LOSS COPLANAR WAVEGUIDE 50 OHM
13.56 MHz => - 0.04660 dB
1 GHz => - 0.84300 dB
3 GHz => - 2.12640 dB
LOSS STRIPLINE 50 OHM
13.56 MHz => - 0.06340 dB
1 GHz => - 1.00830 dB
3 GHz => - 3.05160 dB

bye,
Massimo

1490. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 19:12:06 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401AAC86.3A4EA354@uci.edu>
Source record: 101063

Cecil Moore wrote:
>
> Tdonaly wrote:
> > In order to show that an inductor can
> > be treated as a transmission line, in the way you want to do it, you
> > have to show that your inductor has an exponential current gradient
> > along its length when it's terminated in a certain impedance.
>
> All I have to do is point to W7EL's and W8JI's measurements that
> show a current gradient along a real world loading coil in a standing-
> wave antenna. The current gradient is illustrated by Kraus on page
> 824 of _Antennas_For_All_Applications_, 3rd edition.
>
> You are failing to take into account that the net current in a standing-
> wave antenna is the phasor sum of the forward current and reflected
> current, i.e. the earth is not flat.

Right, Cecil. But you need to make it clear that you're not talking
about a traveling wave gradient.

It's a simple matter to measure the phase delay across a coil. The
gradient is simply the result of the phase differential across the
inductor and its effect on the two superposed waves traveling through it
in opposite directions. But the resultant is a STANDING WAVE, with
magnitude a direction at all points along the antenna, transmission
line, whatever. But the standing wave itself does not move or 'flow'.
This idea that more current is flowing into one end than flows out of
the other is really not particularly illustrative of anything. It's
just creating misunderstandings, and a reluctance to accept an otherwise
valid argument.

73, Jim AC6XG

1491. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 19:14:23 UTC
From: tdonaly@aol.com
Message-ID: <20040130141423.28443.00001076@mb-m01.aol.com>
Source record: 101062

Cecil wrote,
>
>Tdonaly wrote:
>> He can't work out the proofs himself so he has to
>> appeal to a higher authority and hope it all comes out
>> right.
>
>I hope that Kraus is right. You hope that Kraus is wrong.
>Guess which hope has the highest probability of being true?
>I have presented a reference with which I agree. Now it is
>your turn to present a reference that disagrees with Kraus.
>Good luck on that one.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

EZNEC, although I expect EZNEC to have its limitations, just as
Kraus has his. Last night I pretended that dipoles were transmission
lines, as you and Reg and a lot of others suggest, and I wrote some
network equations and solved them. After doing that, I've come to have
more respect for EZNEC. I don't consider my little exercise to be definitive,
though. The only way to resolve this is to make an antenna and see if it
will work the way you say Kraus, and you, say it will. Then you can
ask the question of why it does or does not work.
If I remember correctly, Tom Rauch tried this and couldn't get it to
work as it was supposed to. Tom is a careful experimenter, so his
experience should carry some weight. Why don't you try it, Cecil?
As Reg has repeatedly pointed out, relying on authority only for your proofs is

a procedure fraught with danger.
73,
Tom Donaly, KA6RUH

1492. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 19:29:25 UTC
From: Wes Stewart <*n7ws*@arrl.net>
Message-ID: <4lbl101i4h4j1838gs1gu9ha3f3sivncgc@4ax.com>
Source record: 101064

On Thu, 29 Jan 2004 15:26:44 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

|Tdonaly wrote:
|> Adjust the model yourself,
|> if you think that's what it will show, and put the results on
|> your website.

Yeah.
|
|Unfortunately, I don't have the modeling software that Wes
|is using.

Yes you do. If you would actually read the paper *before* beginning to argue, you would see that all of the modeling can be done in EZNEC and I also supplied the .ez files so you don't have to create the coil models yourself.

http://www.qsl.net/n7ws/AntennaModels.zip

Now, I showed you mine why don't you show us yours. Stop asking whether we would like to see your model files and just put them on your web pape where we can take them or leave them.

1493. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 19:29:34 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-5DA20D.10291930012004@netnews.worldnet.att.net>
Source record: 101065
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

In article <3urSb.2513$jH6.710@newsread1.news.atl.earthlink.net>,
"Dr. Daffodil Swain" <wa4jm@earthlink.net> wrote:

> HUH? Most FCC "engineers" can't pass this test! They have EE's which have
> nothing to do with assembling QRP rigs. They don't teach soldering in
> school. Get a life.

There aren't many of those guys (FCC "engineers) left in the Commission,
since Uncle Billy and his henchman ALGORE, reinvented the Commission,
and layed off 75% of the Field Operations Folks. Better look for some
other folks to admin your goofy exams and build your QRP Radio's.

me

1494. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 19:35:40 UTC
From: mlori@ieee.org
Message-ID: <ddff27eb.0401301135.7076d524@posting.google.com>
Source record: 101066

4nec2@gmx.net wrote in message news:<ee90361b.0401300349.7ef7ec8f@posting.google.com>...
> mlori@ieee.org (Maurizio) wrote in message
news:<ddff27eb.0401280339.5276dbea@posting.google.com>...
> > Hi all,
> > Is there anybody with some experience in MF antenna modelling with
> > ground effect included (surface wave/space wave) etc. ?
> > I have the need to find out if the NEC4 is able to modellize this type
> > of antenna in a general environment and with which performance.
> > Otherwise, I will have to find out alternative ways (FEM/...).
>
> I see you come from Italy, and (for as far as I know) the Nec4 core is
> not (yet) available for none US citizens due to export restrictions.
>
> You could consider using the Nec2 core. However not directly capable
> of modelling burried radial wires you can simulate them by using
> radial wires located some .001-.005 wl above ground (See www.cebik.com
> for detailed info about this subject).
>
> When modeling structures on MF (or LF) however you should also be
> carefull not to violate segment length restrictions due to the
> relatively low frequency compared to structure size.
>
> You could take a look at the 4nec2 freeware
> (www.qsl.net/wb6tpu/swindex.html) to see if the nec2 core is usefull.
> 4nec2 also has provisions for generating and visualizing far-field
> patterns in which the surface wave is included.
>
> Greetings,
> Arie Voors.

Thanks a lot Arie for the links which as I have rapidly seen contain
many interesting references.
My experience is mainly in microwave (and up) frequency antennas, it
is the first time I look at these low frequency problems like ground
modelling and I see that this is the right newsgroup for this field.
If I will find some way to manage this problem better than how it is
currently done, I will keep you informed.
I would need to make a comparison between simulation results from MOM
and FEM programs of a common broadcast antenna to have a better view
of the situation.
Maybe that I can arrange such simulation comparison.

Thanks again

1495. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 19:43:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ab405$1_2@127.0.0.1>
Source record: 101067

Tdonaly wrote:
> The only way to resolve this is to make an antenna and see if it
> will work the way you say Kraus, and you, say it will.

No need to build one, Tom. Diamond has already built one for me.
It's the model NR72B. On 2m, the coil acts as a normal loading
coil. On 70cm, the coil is a phase-reversing coil with 1/4WL
on the bottom and 1/2WL on the top. Kraus describes that exact
antenna on page 824 in Figure 23-21(c) of _Antennas_For_All_
Applications_, 3rd edition. Richard H. can verify that.

Kraus describes the antenna. Diamond builds and markets the
antenna. Do you believe that Kraus is wrong AND Diamond is
engaging in fraudulent marketing practices? You might get
rich and famous by suing them. (Then again, they might just
laugh at your ignorance.)

My Comet 2x4MAX also has phase-reversing coils in it. This is
the 21st century, Tom. It's past time to BBQ your sacred cow.

It is well known that a 3/2WL center fed antenna, like the G5RV
on 20m, undergoes some current phase reversals. That's what gives
it the cloverleaf pattern on 20m. If we make a helical G5RV and
use it on 20m, do you think those phase reversals will go away
simply because we are now dealing with a coil? Please rethink
your position.

> If I remember correctly, Tom Rauch tried this and couldn't get it to
> work as it was supposed to.

When an experimenter believes something is not going to work, it
usually doesn't work. Any number of reasons come to mind.
--
73, Cecil, W5DXP

1496. Re: Adding a 2:1 balun to a multi-band dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 19:46:07 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401301146.405d2a7f@posting.google.com>
Source record: 101068

"Larry Gauthier \(K8UT\)" <MyCallsign@ARRL.NET> wrote in message
news:<101kv33ei9bl32c@corp.supernews.com>...
> I just completed the installation and tuning of a multiband inverted vee for
> 160, 80, and 75 meters. Essentially, the antenna consists of a center PVC
> insulator with 6 terminal posts (2 per band) and the three dipoles separated
> by wooden dowel-rod spreaders at spacings of about 6 inches. All three sets
> of wires are direct fed with one RG/8u.
>
> I have adjusted the lengths of each antenna to move the resonant point to
> preferred frequencies for each band: 1.825 on 160, 3.525 on 80, and 3.775 on
> 75. However, at resonance the SWR on all antennas remains relatively high --
> an MFJ259 analyzer says resonant SWRs are around 1.7-2.0:1 and
> characteristic impedances are 100 ohms or slightly higher. Is a 2:1 balun
> the solution, and which balun method? Seems to me I have the following
> choices:
>
> 1. A "balun kit" from someone like thewireman.com and build my own. This
> could be in either the form of a voltage or a current type -- which type
> would be best?

I guess that could work...
>
> 2. A coax balun in the form of a 1/4 wavelength of RGB/11u 75 ohm coax --
> replacing a portion of the RG/8u feedline with RG/11u. But since I am using
> this for two bands... what length would offer the best compromise for both
> 80 and 160?

I guess this could also, but I'm not sure about the best length as a
compromise.
You shouldn't really need one on the lowest band, unless it's coupling
to something else.
>
> 3. A coiled-coax balun which I have seen described as "about 16 turns of
> RG8x on 3 inch PVC stock".

This is 1:1. No transformation, so would only help decouple the
feedline.
>
> All of these options are easily do-able, but which looks like the best
> route? Your opinions are welcome.

The best route would be to separate the dipoles enough to avoid the
coupling you are seeing between them. That way, you wouldn't need to
do anything else. I always space paralleled dipoles as far apart as
possible. With your bands, I'd run the two set of 80 legs at right

angles, as a turnstile. "I run this myself".
Then the 160 legs somewhere in between. You should only see coupling effects on the higher bands. Usually not the lowest band. If you see effects on the lowest band, it's probably coupling to something else in the area. "power lines, guy wires, etc"..If it were me, and I couldn't space the legs out, I'd probably prefer the coax transformer as a first shot. I'd probably try a 1/4 wave section for 80m, "appx 44 ft or so for 75 ohm .66VF coax" and see if I could match 160 as is by varying the lengths or spacing. If that didn't work, I guess you could try a 2:1 balun. MK

1497. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 19:51:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ab618$1_2@127.0.0.1>
Source record: 100969

Jim Kelley wrote:
> This idea that more current is flowing into one end than flows out of
> the other is really not particularly illustrative of anything. It's
> just creating misunderstandings, and a reluctance to accept an otherwise
> valid argument.

It's all explained on my web page, Jim, where the forward current
is assumed to be a constant magnitude through the coil and so is
the reflected current. It is the net current that is changing
magnitude because of the superposition of the forward current
and reflected current. Net current is much easier to measure
than are the component currents. We can deduce what the component
currents look like from the net standing wave current.
--
73, Cecil, http://www.qsl.net/w5dxp

1498. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 20:05:01 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401AB8ED.F3B52B77@uci.edu>
Source record: 100972

Cecil Moore wrote:
> It is the net current that is changing
> magnitude because of the superposition of the forward current
> and reflected current. Net current is much easier to measure
> than are the component currents. We can deduce what the component
> currents look like from the net standing wave current.

My point is that statements like "more current goes in one end than comes out the other" are not helpful or illustrative of the phenomenon. Were you to avoid such statements, you would likely receive less resistance to the idea you're trying to convey. Understand?

73, Jim AC6XG

1499. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 20:06:27 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ab984_2@127.0.0.1>
Source record: 100970

Wes Stewart wrote:
> If you would actually read the paper *before* beginning
> to argue, you would see that all of the modeling can be done in EZNEC
> and I also supplied the .ez files so you don't have to create the coil
> models yourself.

I just looked at the paper again and I don't see any files to download.
Where are the files? I only have DOS-based EZNEC. Will it still work?

> Now, I showed you mine why don't you show us yours. Stop asking
> whether we would like to see your model files and just put them on
> your web pape where we can take them or leave them.

Don't know how. But assuming I can learn how to do that in HTML, I'll
try to post those files tomorrow.
--
73, Cecil, W5DXP

1500. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 20:09:14 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <LRySb.3240$gl2.2307@lakeread05>
Source record: 100971

Thanks to all responding. A 20m antenna on top of the tower was demolished, pieces landing 100' away. That one single feedline was connected and operating a wx-alert system in the shop. The house suffered zero structural damage, the roofline and 2 antennas on it was definitely not the source of any of the strikes. The outbuildings also suffered no structural damage or even marks. The coax(s) most definitely carried the lightning, now whether they got it from the ground current, tower, tower ground radials, that's anybody's guess. Coming into the shop, that was likely from the 20 meter feedline, but the explosion inside the shop right next to my friend was just "energy", the same kind that blew up floor tile from a patch cord hanging on a hook by itself. The computers destroyed were from energy in the AC wiring and cable modem network.

From all I have read here, this hit was (luckily) one of rare intensity and diversity. Two strikes to the tower later in the summer of last year had only minor impact on anything.

Jack

"Mark Keith" <nm5k@wt.net> wrote
> > On Mon, 26 Jan 2004 21:07:24 -0500, "Jack Painter" <223bthp@cox.net>
> > wrote:
> >
> > >Richard, my earlier posts described the grounding my friend, here is
quick
> > >summary:
> > >
> > >1.Well grounded 100' tower, hundreds of feet of many radials, rods,
etc.
> > >Survived many strikes.
> > >2. Feedline from tower's dipole was disconnected about 20' from tower
where
> > >it enters a buried pvc conduit that travels 150' to house, then up to
second
> > >story shack. Where nothing is grounded, except by virtue of house AC
> > >wiring - a bad I know (not mine either).
> > >3. Ground current from the tower strike most likely entered the coax
> > >feedlines at the disconnect point as they entered the pvc conduit then
> > >traveled on into house.
> > >4. House current also took huge jolts, zorching all kinds of connected
> > >equipment, phones, tv's etc.
> > >5. Outbuilding with radio equipment connected took huge hit, ball
lightning
> > >inside room fried test cords connected to nothing, hanging on test
bench,

> > >where the leads touched tile floor, huge blow-out of tile. AC power
blew
> > >wall warts across room, computers next to each other had .22 rifle
bullet
> > >sized hole between them. Equipment in this bldg was grounded, and some
that
> > >was was damaged, others not touched. In short, a massive, multiple
> > >strike-path hit that may not be protectable from - but I realize there
was a
> > >lot missing from a good ground picture here also.
> > >
> > >Jack
> >
> > Hi Jack,
> >
> > You know, it sounds like the lightning hit your house/out-building and
> > went toward the tower.
> >
> > 73's
> > Richard Clark, KB7QHC
>
> Sounds like it. I'm fairly sure it didn't hit the tower. Or if it did,
> it also hit the houses at the same time. You don't get dime size holes
> in the house, unless the strike is traveling in the house. I don't
> think it's too likely ground currents traveled up the unconnected coax
> to the house. It would have gone on to ground at the tower, being it's
> well grounded. I think the upstairs part of the house was struck, and
> the coax from the drake, along with power wiring was the return to
> ground. Note all the damage in the house. Jack, you are one lucky $#^
> *#^*@....:) It could have burned the house down. The coax to ground
> level from the upstairs drake may have routed a good bit of the strike
> out to ground. Not enough to save damage though..MK

1501. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 21:06:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <58hl10dt2rfd890qqh1e5hukdqipusccjq@4ax.com>
Source record: 100973

On 30 Jan 2004 02:16:09 -0800, mlori@ieee.org (Maurizio) wrote:

>Hi Richard,
>my feeling is that in the past some studies have tried to find out the
>structure and relative strenght of the ground/space wave fields.
>Experience has then given rules to evaluate the losses due to the high
>reactive fields near the antenna with the lossy ground (i have seen a
>paper using a 6 dB factor to take into account antenna mismatch and
>such nearby losses).
>It maybe that this is almost all that has been done.
>Do you agree?
>
>
>Maurizio

Hi Maurizio,

I worked on this a couple of years ago:
http://home.comcast.net/~kb7qhc/antennas/Fields/index.htm

It deals not so much with the variation of ground proximity with a
standard antenna, instead it works against the standard ground with a
variety of antennas.

Due to the intricacy of geometry afforded by a fractal form, this:
http://home.comcast.net/~kb7qhc/antennas/Fields/fractal/Koch/Quadratic/index.htm
is the most interesting. Unfortunately, the legacy of academic
fractal research (sic) has offered no more interest than the morbid
study of Down's Syndrome among the Armadillo population.

73's
Richard Clark, KB7QHC

1502. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 21:07:52 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <IIzSb.3124$uM2.1048@newsread1.news.pas.earthlink.net>
Source record: 100974

"Massi" <msignorini@calearotlc.com> wrote in message
news:bve522$mv1$1@carabinieri.cs.interbusiness.it...
> "Massi" <msignorini@calearotlc.com> ha scritto nel messaggio
> news:bvaaoe$c50$1@fata.cs.interbusiness.it...
> > Thanks a lot for all the answers,
> > I'm doing some tests in laboratory with a network analyzer and will let
> you
> > know asap what I will find.
> > Massimo
> >
> I have done some tests with trasmission line builded in FR4 (30cm long,
2cm
> wide), according to them I have the following notes:
> VSWR MICROSTRIP 50 OHM
> 13.56 MHz => 1.0129
> 1 GHz => 1.0457
> 3 GHz => 1.0994
> VSWR COPLANAR WAVEGUIDE 50 OHM
> 13.56 MHz => 1.0250
> 1 GHz => 1.1698
> 3 GHz => 1.3500
> VSWR STRIPLINE 50 OHM
> 13.56 MHz => 1.0315
> 1 GHz => 1.0269
> 3 GHz => 1.2665
>
> LOSS MICROSTRIP 50 OHM
> 13.56 MHz => - 0.03360 dB
> 1 GHz => - 0.83380 dB
> 3 GHz => - 2.40590 dB
> LOSS COPLANAR WAVEGUIDE 50 OHM
> 13.56 MHz => - 0.04660 dB
> 1 GHz => - 0.84300 dB
> 3 GHz => - 2.12640 dB
> LOSS STRIPLINE 50 OHM
> 13.56 MHz => - 0.06340 dB
> 1 GHz => - 1.00830 dB
> 3 GHz => - 3.05160 dB
>
> bye,
> Massimo

Isn't waveguide kind of big at 13.56 MHz?

John

1503. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 21:11:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ac952_6@corp.newsgroups.com>
Source record: 100976

Jim Kelley wrote:
> My point is that statements like "more current goes in one end than
> comes out the other" are not helpful or illustrative of the phenomenon.
> Were you to avoid such statements, you would likely receive less
> resistance to the idea you're trying to convey. Understand?

Why would it make any difference to say the magnitude of net current
in is greater than the magnitude of net current out? "Greater than"
and "more" mean the same thing.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1504. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 21:13:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <35il109qcphbn97qennjotoki4gijtjui4@4ax.com>
Source record: 100975

On Fri, 30 Jan 2004 08:24:34 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Mike Coslo wrote:
>> Well Richard, have you not heard of the famous aperture mask?
>> Reduces the aperture of the telescope, and there are people that swear
>> by them!
>>
>> And, they don't work either.
>
>Mine works well to reduce the light from the moon to a comfortable
>viewing level for my 18" diameter reflecting mirror.

So do moonglasses.

1505. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 21:14:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ac9dc$1_6@corp.newsgroups.com>
Source record: 100977

Cecil Moore wrote:
> I just looked at the paper again and I don't see any files to download.
> Where are the files? I only have DOS-based EZNEC. Will it still work?

Sorry Wes, the combination of a small screen, color-blindness, and
cataracts causes me to miss a lot of things. I have successfully
downloaded your zip files now.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1506. Re: What is going on?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 21:19:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401acb0e_6@corp.newsgroups.com>
Source record: 100978

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Mine works well to reduce the light from the moon to a comfortable
>>viewing level for my 18" diameter reflecting mirror.
>
> So do moonglasses.

If you don't mind looking like a dorky nerd. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1507. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 21:23:26 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401ACB4E.7D6FF8B3@uci.edu>
Source record: 100979

Cecil Moore wrote:
> Why would it make any difference to say the magnitude of net current
> in is greater than the magnitude of net current out?

It's meaningless to characterize it that way in the case of a standing
wave.

73, Jim AC6XG

1508. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 21:34:07 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <j5ASb.148789$nt4.686388@attbi_s51>
Source record: 100980

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401ab618$1_2@127.0.0.1...
> Jim Kelley wrote:
> > This idea that more current is flowing into one end than flows out of
> > the other is really not particularly illustrative of anything. It's
> > just creating misunderstandings, and a reluctance to accept an otherwise
> > valid argument.

Cecil,
You stated below that the assumption is that forward current is "assumed" to
be a constant magnitude.

I am not sure what that assumption entails because of the following:
In a 1/2 wave dipole the current is not uniform but sinosoidal, if the
current was uniform then the same energy
on the assumption that the maximum current in the center of the dipole is
maintained would be dispenced by a radiator not of wavelength over two but
a radiator of wavelength over 'Pi"
So when you refer to constant current with respect to an
inductance, is the free length of such related to a half wave length or the
same over Pi.? I am trying to look at the problem thru your eyes with
respect to phase change,
wavelength and all that stuff to get a better understanding of your view
point.
Regards
Art

snip

", where the forward current
> is assumed to be a constant magnitude through the coil snip

--
> 73, Cecil, http://www.qsl.net/w5dxp
>
>

1509. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 21:54:46 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401AD2A6.CE16FC52@uci.edu>
Source record: 100981

Art Unwin KB9MZ wrote:
>
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:401ab618$1_2@127.0.0.1...
> > Jim Kelley wrote:
> > > This idea that more current is flowing into one end than flows out of
> > > the other is really not particularly illustrative of anything. It's
> > > just creating misunderstandings, and a reluctance to accept an otherwise
> > > valid argument.
>
> Cecil,
> You stated below that the assumption is that forward current is "assumed" to
> be a constant magnitude.
>
> I am not sure what that assumption entails because of the following:
> In a 1/2 wave dipole the current is not uniform but sinosoidal, if the
> current was uniform then the same energy
> on the assumption that the maximum current in the center of the dipole is
> maintained would be dispenced by a radiator not of wavelength over two but
> a radiator of wavelength over 'Pi"
> So when you refer to constant current with respect to an
> inductance, is the free length of such related to a half wave length or the
> same over Pi.? I am trying to look at the problem thru your eyes with
> respect to phase change,
> wavelength and all that stuff to get a better understanding of your view
> point.
> Regards
> Art

Hi Art,

He's talking about it from the perspective of net current as a function
of position. It's not current like we would normally express it; as a
function of time. It's a peculiar kind of bird.

73, Jim AC6XG

1510. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 22:10:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2gll109ha6enlo7koeofq9i9uqduui8qdk@4ax.com>
Source record: 100982

On Fri, 30 Jan 2004 13:54:46 -0800, Jim Kelley <jwkelley@uci.edu>
wrote:

> It's a peculiar kind of bird.

Like the asian chicken-flu.

1511. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 22:13:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ad7b5_8@corp.newsgroups.com>
Source record: 100983

Tdonaly wrote:
> How fast does light travel in copper, Cecil?

Slower than air so the current into and out of a coil cannot
possibly be identical. It takes ~1 nS for light to travel
one foot through air. How on earth can it possibly travel
faster than that through a one foot long copper coil? You
guys are worshiping a religion completely divorced from
scientific fact.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1512. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 22:14:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ad81e$1_8@corp.newsgroups.com>
Source record: 100984

Jim Kelley wrote:

> Cecil Moore wrote:
>>Why would it make any difference to say the magnitude of net current
>>in is greater than the magnitude of net current out?
>
> It's meaningless to characterize it that way in the case of a standing
> wave.

That's *exactly* what Roy and Tom are measuring. How can it possibly
be characterized any other way?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1513. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 22:21:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ad9a0_8@corp.newsgroups.com>
Source record: 100985

Art Unwin KB9MZ wrote:
> In a 1/2 wave dipole the current is not uniform but sinosoidal, ...

You are talking about the *net* standing wave current, Art, which
is the phasor sum of the forward current and reflected current. Both
the forward current and reflected current are *traveling* waves, not
standing waves. There's a lot of good information on this web page:

http://webphysics.davidson.edu/physlet_resources/bu_semester2/menu_semester2.html
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1514. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 22:23:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ada12$1_8@corp.newsgroups.com>
Source record: 100986

Jim Kelley wrote:
> He's talking about it from the perspective of net current as a function
> of position.

Because that's exactly what Roy and Tom are measuring. I have
tried to talk to them about the currents that they are not
measuring and it didn't work.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1515. Re: Adding a 2:1 balun to a multi-band dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 22:27:28 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <401ADA50.19E4AA66@cwis.net>
Source record: 100987

Larry,
I don't think a balun would do any good in your situation,
but it wouldn't hurt to try one, I guess.
There are other 'tricks' to lowering the SWR besides using
a balun. Seperating the various 'legs' of the antenna more,
changing the angle between the 'legs', and so on. Depending
on how you have the antenna mounted, changing it's 'shape' is
quicker/easier/cheaper than adding a balun, so I'd try that
first.
If you do try a balun, a 'current' balun is almost always the
prefered type to use. As long as it's rated for the power you
plan
to use, just make it 'cheap' for your self. And, since coax is
cheaper than buying a balun, I'd give the coaxial 'choke' a try
first.
I doubt if it helps with the SWR problem, though. Can't hurt to
try it, so why not?
'Doc

1516. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 22:33:33 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401ADBBD.FDCAB631@uci.edu>
Source record: 100988

Cecil Moore wrote:
> That's *exactly* what Roy and Tom are measuring.

So if Roy and Tom jump off a bridge, are you going to jump off a bridge too, Cecil?

:-)

73, Jim AC6XG

1517. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-30 22:57:22 UTC
From: VE1BLL@rac.ca
Message-ID: <8a615218.0401301457.319254c@posting.google.com>
Source record: 100989
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

"Roger Halstead"
> Rarely does the system suffer damage.
>
> ...one computer...
> ...one PolyPhaser...
> ...a repeater antenna...
> ...a section of 5/8ths inch Heliax...
> ...every bit of water proofing...
> ...all the silver plating...
> ...a two meter rig...
> ...a barrel connector (N type)...

Geesus H. !

I guess so long as you think that you're happy,
then you're happy. ;-)

Carry on then.

1518. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 00:44:26 UTC
From: tdonaly@aol.com
Message-ID: <20040130194426.13622.00000756@mb-m27.aol.com>
Source record: 100990

>
>Tdonaly wrote:
>> The only way to resolve this is to make an antenna and see if it
>> will work the way you say Kraus, and you, say it will.
>
>No need to build one, Tom. Diamond has already built one for me.
>It's the model NR72B. On 2m, the coil acts as a normal loading
>coil. On 70cm, the coil is a phase-reversing coil with 1/4WL
>on the bottom and 1/2WL on the top. Kraus describes that exact
>antenna on page 824 in Figure 23-21(c) of _Antennas_For_All_
>Applications_, 3rd edition. Richard H. can verify that.
>
Cecil wrote,
>Kraus describes the antenna. Diamond builds and markets the
>antenna. Do you believe that Kraus is wrong AND Diamond is
>engaging in fraudulent marketing practices? You might get
>rich and famous by suing them. (Then again, they might just
>laugh at your ignorance.)
>
>My Comet 2x4MAX also has phase-reversing coils in it. This is
>the 21st century, Tom. It's past time to BBQ your sacred cow.
>
>It is well known that a 3/2WL center fed antenna, like the G5RV
>on 20m, undergoes some current phase reversals. That's what gives
>it the cloverleaf pattern on 20m. If we make a helical G5RV and
>use it on 20m, do you think those phase reversals will go away
>simply because we are now dealing with a coil? Please rethink
>your position.
>
>> If I remember correctly, Tom Rauch tried this and couldn't get it to
>> work as it was supposed to.
>
>When an experimenter believes something is not going to work, it
>usually doesn't work. Any number of reasons come to mind.
>--
>73, Cecil, W5DXP
>

Cecil, coils work fine as long as everything is taken into account,
including the capacitance between the two radiators.
Tank circuits don't. I once thought up the same scheme, myself,
and felt pretty proud of myself until I found out it was ancient history.
By the way, capacitors work, too. Would you like to
show me how to make a half-wave capacitor? If your theory is

correct, you should be able to model a capacitor as a transmission line, also.
The theory of coupled oscillators of all sorts is moderately interesting, but you can't learn it by quoting Aristotle. The methods of 13th century scholasticism have their limits. You can argue as much as you want about "phase reversing coils" and such, but unless you've done some math and tried to get the results of your math to ape reality through experimentation, the probability of your understanding the subject matter is very small.
Actually, Tom thought it was going to work, if I remember correctly.
That was a pretty dumb cheap-shot on your part, Cecil.
73,
Tom Donaly, KA6RUH

1519. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 00:47:13 UTC
From: k9sqg@aol.com
Message-ID: <20040130194713.13174.00000656@mb-m20.aol.com>
Source record: 100991

I saw an ariticle from a British ham that fed a vertical with open wire line, mounted on his roof. Ground mounted might be problematic due to the fact that the feedline could not be brought away at a preferred angle. Would be an interesting experiment though!

73s,

Evan

1520. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 00:56:51 UTC
From: tdonaly@aol.com
Message-ID: <20040130195651.13622.00000757@mb-m27.aol.com>
Source record: 100992

Cecil wrote,
>
>Tdonaly wrote:
>> How fast does light travel in copper, Cecil?
>
>Slower than air so the current into and out of a coil cannot
>possibly be identical. It takes ~1 nS for light to travel
>one foot through air. How on earth can it possibly travel
>faster than that through a one foot long copper coil? You
>guys are worshiping a religion completely divorced from
>scientific fact.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

O.k., Cecil, let's suppose you're right. Since there's more
current going into a coil than coming out, then the coil must be
storing charge, somewhere. Charge is conserved, Cecil. You
can't create it or destroy it. If the coil is storing charge somewhere
it must be acting like a capacitor, which is famous for doing just
that. Where does the coil store its charge?
73,
Tom Donaly, KA6RUH

1521. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:01:00 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401AFE4C.7865163F@uci.edu>
Source record: 100994

Tdonaly wrote:
> If your theory is
> correct, you should be able to model a capacitor as a transmission
> line, also.

Yeah. A really short transmission line.

You do understand what the words 'propagation delay' mean, right?

> You can argue as much as you want
> about "phase reversing coils" and such, but unless you've done some
> math and tried to get the results of your math to ape reality through
> experimentation, the probability of your understanding the subject matter
> is very small.

I assume you know how to use a dual trace oscilloscope. Try running a
signal through a coil of wire and see if you can get it to go through
without exhibiting a phase delay.

73, Jim AC6XG

1522. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:06:59 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <TcDSb.146816$sv6.814526@attbi_s52>
Source record: 100993

Tdonaly wrote:

SNIP

>
> O.k., Cecil, let's suppose you're right. Since there's more
> current going into a coil than coming out, then the coil must be
> storing charge, somewhere. Charge is conserved, Cecil. You
> can't create it or destroy it. If the coil is storing charge somewhere
> it must be acting like a capacitor, which is famous for doing just
> that. Where does the coil store its charge?
> 73,
> Tom Donaly, KA6RUH
>
>
Two possibilities exist: 1) Charge is stored in the interwinding
capacitance; or, 2) EM radiation is occurring in the coil i.e. the
winding length is a significant portion of a wavelength!!

What's your Physics say?

1523. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:19:37 UTC
From: "Dr. Daffodil Swain" <wa4jm@earthlink.net>
Message-ID: <JoDSb.3258$jH6.3176@newsread1.news.atl.earthlink.net>
Source record: 100995

I made the mistake of assuming one would not be stupid enough to run 275 feet of RG58.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:401a6bf2$1_1@corp.newsgroups.com...
> Dr. Daffodil Swain wrote:
> > Sounds like too much work! The loss of 50 Ohm feedline at 80 and 40 meters
> > isn't worth worrying about.
>
> For 275 ft. of RG-58 with an SWR of 1:1 on 40m, one would lose
> ~half of one's power in the feedline. With an SWR of 10:1, one
> would lose ~75% of one's power in the feedline.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1524. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:36:29 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <101m1kvc8up0fa7@corp.supernews.com>
Source record: 100996
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Reg Edwards wrote:

I am just a curious foreigner, ie., not a USA citizen.

I've just had a quick speed-read down this thread.

Are you all about to start another civil war?

These things have a habit of spreading.

Dear Reg--

In this REPUBLIC (our founding fathers wisely refrained from creating a DEMOCRACY-
because it leads to ANARCHY)! we are by nature, a quarlsome bunch, like Brothers, looking
for a BEER in a BAR, and upon seeing a CUTE young girl, will, at the drop of a hat, turn the bar
into a RIOT SCENE! We will fight tooth and nail amongst ourselves, call each other every NAME
in the DICTIONARY, and come home bloodied, to heal our wounds! A typical family squabble --- BUT, as THE BROTHERS THAT WE ARE, when ANYONE attacks ANY of us, we will KICK SERIOUS BUTT ! As a FAMILY composed of peoples that has been KICKED OUT OF EVERY CIVILIZED COUNTRY, over the last 200 + years, NEVER let ANYONE make the mistake that this country is DEVIDED - something that Germany has discovered, TWICE!, Japan, once, and the TALIBAN is about to discover, too (MUCH to their REGRET) ! For our lesson is: We shall HANG TOGETHER, rather than to hang SEPARATELY !! learnd from the REVOLUTION!
73, Jim NN7K

1525. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:41:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b0889_4@corp.newsgroups.com>
Source record: 100997

Tdonaly wrote:
> Cecil, coils work fine as long as everything is taken into account,
> including the capacitance between the two radiators. Tank circuits don't.

Tank circuits don't "work fine as long as everything is taken into
account"? That's a really, really strange assertion.

> Would you like to
> show me how to make a half-wave capacitor? If your theory is
> correct, you should be able to model a capacitor as a transmission
> line, also.

Please show me how to build a physical capacitor with distributed
inductance and I indeed will show you how to make a half-wave capacitor.
I suspect it is possible but to the best of my knowledge nobody has ever
tried to maximize the inductance in a capacitor.

> You can argue as much as you want
> about "phase reversing coils" and such, but unless you've done some
> math and tried to get the results of your math to ape reality through
> experimentation, the probability of your understanding the subject matter
> is very small.

I am amazed that you disagree with Kraus. If your math disagrees with
reality, it is simply wrong and has turned into a religious belief.
You are free to worship at the alter of mathematics but please don't
expect the rest of us scientists to join you there.

A transmission line in a distributed network can reverse the phase
of the signals. A coil in a distributed network can reverse the
phase of the signals. Do you really expect anyone to believe that a
one wavelength long helical antenna can exist without phase reversals?
If so, you have just re-written the laws of physics.

The Catholic priests 500 years ago believed their religion was superior
to reality. Today, you believe your sacred cow math models are superior
to reality. I don't see an iota of difference between those two positions.
Math models cannot be used to verify reality. It is supposed to be the
opposite situation. I guess I should expect you to put me under house
arrest as the next step in shutting me up.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1526. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:46:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b09a3_4@corp.newsgroups.com>
Source record: 100999

Tdonaly wrote:
> O.k., Cecil, let's suppose you're right. Since there's more
> current going into a coil than coming out, then the coil must be
> storing charge, somewhere.

Tom, Tom, Tom, we are talking about *net* current. The net current
in an unterminated transmission line can be zero while 1/4WL away,
it is 100 amps. Are you asserting that transmission lines don't
conserve charge? Would you please put your brain in gear?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1527. Re: ARRL Licence Cheat Sheet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:47:00 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <101m28lr70smhab@corp.supernews.com>
Source record: 100998

As a matter of FACT!-- YES, it is called the FCC's SYLIBUS, and is the Questions
and Answers for the FCC's tests!! BY LAW, these ARE THE QUESTIONS, and ANSWERS
that must appear on ALL TESTS , for both ARRL, and W5YI tests! (but remember, there are
some 400 per class of test taken, and that the FCC even publishes them for FREE) !! Jim NN7K

"Nelson" <tstevens@cogeco.ca> wrote in message
news:NLhRb.176$_62.87@read1.cgocable.net...
> Is there such a thing, some guy in El Gorah, Egypt a Yank no less tried to
> sell my friend a copy of this, ok so him and I were a little game, we bought
> the thing from him, guess its seems to be all the right answers for the
> Advanced test, so my question is now how many of these things are there out
> there, and how guys are for real, not some two bit cow-boy that knows
> nothing about nothing. What happens when we need those guys in a emergency
> and they don't know crap!!.
>
> Guys if you know of other cheat sheets out there, please send them this way,
> I will do my level best to get them out.
>
>
> Nelson Stevens
>
>
>

1528. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:50:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b0aa7_4@corp.newsgroups.com>
Source record: 101001

Dave Shrader wrote:
> Two possibilities exist: 1) Charge is stored in the interwinding
> capacitance; or, 2) EM radiation is occurring in the coil i.e. the
> winding length is a significant portion of a wavelength!!
>
> What's your Physics say?

Don't know about Tom's physics, but mine says the net current in an unterminated transmission line can be zero at one point and 100 amps 1/4 WL away. Tom (apparently) thinks that is a violation of the conservation of charge principle.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1529. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:51:30 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <101m2h7nkt83rf1@corp.supernews.com>
Source record: 101000

Thanks for all the feedback. As for running 275 ft of RG58, I would not do that, but would try something like 9913 or LMR400, etc. The only reason I am considering open wire feeders is to get ever watt to the antenna, and save the cost of good coax. As for the comment that the feedline would be part of the antenna at that long of a run, that was part of the original post, and my worrying about the antenna intself unbalancing the feedline. The way I understand it, the feedline should not radiate or be part of the antenna if it is balanced. At least I know others are doing this with success. I don't know if I would want to go to the trouble of making a three wire open wire feeder.
As for the interaction of other things with the feeline, there is nothing except open field for the distance.

Doug N4IJ

"K9SQG" <k9sqg@aol.com> wrote in message
news:20040130194713.13174.00000656@mb-m20.aol.com...
> I saw an ariticle from a British ham that fed a vertical with open wire
line,
> mounted on his roof. Ground mounted might be problematic due to the fact
that
> the feedline could not be brought away at a preferred angle. Would be an
> interesting experiment though!
>
> 73s,
>
> Evan

1530. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 01:52:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b0b30_4@corp.newsgroups.com>
Source record: 101002

Dr. Daffodil Swain wrote:
> I made the mistake of assuming one would not be stupid enough to run 275
> feet of RG58.

You said:

> The loss of 50 Ohm feedline at 80 and 40 meters isn't worth worrying about.

RG-58 *is* 50 ohm feedline. Aren't you glad I didn't choose RG-174? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1531. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 02:03:33 UTC
From: tdonaly@aol.com
Message-ID: <20040130210333.13622.00000761@mb-m27.aol.com>
Source record: 101003

Jim wrote,
>
>Tdonaly wrote:
>> If your theory is
>> correct, you should be able to model a capacitor as a transmission
>> line, also.
>
>Yeah. A really short transmission line.
>
>You do understand what the words 'propagation delay' mean, right?
>
>> You can argue as much as you want
>> about "phase reversing coils" and such, but unless you've done some
>> math and tried to get the results of your math to ape reality through
>> experimentation, the probability of your understanding the subject matter
>> is very small.
>
>I assume you know how to use a dual trace oscilloscope. Try running a
>signal through a coil of wire and see if you can get it to go through
>without exhibiting a phase delay.
>
>73, Jim AC6XG
>

You missed the point, as usual. I guess I've done it now, I've
resurrected the Jim and Cecil show. It's time to bow out and
let you two congratulate each other on your misunderstandings
to your heart's content.
73,
Tom Donaly, KA6RUH

1532. Re: Adding a 2:1 balun to a multi-band dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 02:17:13 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <0LKdnaKRlrm3jYbdRVn-uw@comcast.com>
Source record: 101004

Larry,

Where did you measure the impedance? Probably not at the feedpoint. You would have to use a Smith chart to determine what the actual antenna impedance is. A 2:1 balun *at that point* should work, though. They are hard to find. Amidon has one, but it is about $60. I have fed multiple dipoles off the same feedpoint, and gotten an impedance close to 50 Ohms; however, I had something like 15 degrees separation between the dipoles.

Tam/WB2TT
"Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET> wrote in message news:101kv33ei9bl32c@corp.supernews.com...
> I just completed the installation and tuning of a multiband inverted vee for
> 160, 80, and 75 meters. Essentially, the antenna consists of a center PVC
> insulator with 6 terminal posts (2 per band) and the three dipoles separated
> by wooden dowel-rod spreaders at spacings of about 6 inches. All three sets
> of wires are direct fed with one RG/8u.
>
> I have adjusted the lengths of each antenna to move the resonant point to
> preferred frequencies for each band: 1.825 on 160, 3.525 on 80, and 3.775 on
> 75. However, at resonance the SWR on all antennas remains relatively high --
> an MFJ259 analyzer says resonant SWRs are around 1.7-2.0:1 and
> characteristic impedances are 100 ohms or slightly higher. Is a 2:1 balun
> the solution, and which balun method? Seems to me I have the following
> choices:
>
> 1. A "balun kit" from someone like thewireman.com and build my own. This
> could be in either the form of a voltage or a current type -- which type
> would be best?
>
> 2. A coax balun in the form of a 1/4 wavelength of RGB/11u 75 ohm coax --
> replacing a portion of the RG/8u feedline with RG/11u. But since I am using
> this for two bands... what length would offer the best compromise for both
> 80 and 160?
>
> 3. A coiled-coax balun which I have seen described as "about 16 turns of
> RG8x on 3 inch PVC stock".
>
> All of these options are easily do-able, but which looks like the best

> route? Your opinions are welcome.
> ------
> -larry
> K8UT
>
>

1533. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 02:18:33 UTC
From: tdonaly@aol.com
Message-ID: <20040130211833.13622.00000762@mb-m27.aol.com>
Source record: 101005

Cecil wrote,
(snip)
>
>I am amazed that you disagree with Kraus. If your math disagrees with
>reality, it is simply wrong and has turned into a religious belief.
>You are free to worship at the alter of mathematics but please don't
>expect the rest of us scientists to join you there.
>
>A transmission line in a distributed network can reverse the phase
>of the signals. A coil in a distributed network can reverse the
>phase of the signals. Do you really expect anyone to believe that a
>one wavelength long helical antenna can exist without phase reversals?
>If so, you have just re-written the laws of physics.
>
>The Catholic priests 500 years ago believed their religion was superior
>to reality. Today, you believe your sacred cow math models are superior
>to reality. I don't see an iota of difference between those two positions.
>Math models cannot be used to verify reality. It is supposed to be the
>opposite situation. I guess I should expect you to put me under house
>arrest as the next step in shutting me up.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

This is vintage Moore. I know you're never going to admit that you
don't understand this stuff. That's fine. I'm going to leave the field to
you and your pal, Jim, until the next time you start trying to pawn off
your simple ideas as The Truth.
73,
Tom Donaly, KA6RUH

1534. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 02:22:03 UTC
From: Wes Stewart <*n7ws*@arrl.net>
Message-ID: <ll3m10le38pnqe90n40sifmifgcp39rg3g@4ax.com>
Source record: 101006

On Fri, 30 Jan 2004 14:06:27 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

|Wes Stewart wrote:
|> If you would actually read the paper *before* beginning
|> to argue, you would see that all of the modeling can be done in EZNEC
|> and I also supplied the .ez files so you don't have to create the coil
|> models yourself.
|
|I just looked at the paper again and I don't see any files to download.
|Where are the files? I only have DOS-based EZNEC. Will it still work?

Not sure. I tried installing EZNEC 2.0 on this machine and it would
not take. I tried EZNEC 1.0 and it installed but doesn't want to run
on Win-XP and I not going to waste time trying. It did open the files
however. My XYL has the dual boot machine with Win98 tied up and I'm
not going to ask her to give it up. Not when she's just authorized
the purchase of a new $2K table saw. :-D

|
|> Now, I showed you mine why don't you show us yours. Stop asking
|> whether we would like to see your model files and just put them on
|> your web page where we can take them or leave them.
|
|Don't know how. But assuming I can learn how to do that in HTML, I'll
|try to post those files tomorrow.

As you can see from my home page I'm not, nor do I want to be, a web
page designer. But even I know that you can just ftp your files to
your web page. You don't need to create a link on a page, just tell
us the file name. I do it all the time.

1535. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 02:24:23 UTC
From: tdonaly@aol.com
Message-ID: <20040130212423.13622.00000763@mb-m27.aol.com>
Source record: 101007

Dave wrote,
>
>Tdonaly wrote:
>
>SNIP
>
>>
>> O.k., Cecil, let's suppose you're right. Since there's more
>> current going into a coil than coming out, then the coil must be
>> storing charge, somewhere. Charge is conserved, Cecil. You
>> can't create it or destroy it. If the coil is storing charge somewhere
>> it must be acting like a capacitor, which is famous for doing just
>> that. Where does the coil store its charge?
>> 73,
>> Tom Donaly, KA6RUH
>>
>>
>Two possibilities exist: 1) Charge is stored in the interwinding
>capacitance; or, 2) EM radiation is occurring in the coil i.e. the
>winding length is a significant portion of a wavelength!!
>
>What's your Physics say?
>

It says you can radiate energy, but radiating charge is another
proposition. Also, charge has to be stored on the surface of
the conductor, not in it's own field. Energy can be stored there,
though.
73,
Tom Donaly, KA6RUH

1536. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 02:32:25 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b147f$1_8@corp.newsgroups.com>
Source record: 101008

Tdonaly wrote:
> This is vintage Moore. I know you're never going to admit that you
> don't understand this stuff. That's fine. I'm going to leave the field to
> you and your pal, Jim, until the next time you start trying to pawn off
> your simple ideas as The Truth.

Vintage Donaly. When you lose the argument, mount an ad hominem attack.
Why don't you respond to the questions? True or False?

It is possible to measure zero net amps in a transmission line while
measuring 100 net amps 1/4WL away. __________
That violates the principle of conservation of charge. _________

Hint: The net current can have a different magnitude at two ends of
a transmission line without violating the conservation of charge
principle. The net current can have a different magnitude at two ends
of a coil without violating the conservation of charge principle.
The difference in current is possible because of the standing waves.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1537. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 02:38:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b15fc$1_8@corp.newsgroups.com>
Source record: 101009

Wes Stewart wrote:
> As you can see from my home page I'm not, nor do I want to be, a web
> page designer. But even I know that you can just ftp your files to
> your web page. You don't need to create a link on a page, just tell
> us the file name. I do it all the time.

Wow, that's news to me. I knew that one could access .htm and .gif files
with a browser, but .ez files? That's pretty neat.

Wes, I took a brief look at your coil .ez files. There seems to be a
current taper through the coil.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1538. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 02:42:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b16f5$1_8@corp.newsgroups.com>
Source record: 101010

Tdonaly wrote:
> It says you can radiate energy, but radiating charge is another
> proposition. Also, charge has to be stored on the surface of
> the conductor, not in it's own field. Energy can be stored there,
> though.

An unterminated transmission line reads zero net current at one point.
Does that mean there is no charge on the entire line? Do you understand
how net charge can clump together for standing waves between the two
zero current points?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1539. @@@ Power Limit on J-Poles??????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 03:51:56 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0401301951.326e712b@posting.google.com>
Source record: 101011

Hello,

What's the upper power limit for your typical homemade VHF
J-Pole??

I made a super J-pole with 3/4" copper tubing, and it seems to
handle 350 watts very well. But i need to make something smaller, but
without giving up the power handling ability.

It might depend some on the diameter of the tubing (1/2" versus
3/4").

Any knowledgable advice greatly appreciated.

Slick

1540. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 04:16:03 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <101matekkdevi72@corp.supernews.com>
Source record: 101012

Working as a broadcast engineer at a MW (1390 kHz) station quite a few decades ago, I have placed myself in the transmitter room so as to be able to look at the towers as a Summer storm passed. That transmitter did not have an automatic restore circuit. Well, I served as same. When I saw the lighting strike the towers, I would reset the breaker. The tubes (813s as I remember) would take that kind of abuse. My reflexes were good enough in those days that the listeners hardly knew anything happened.
That is another trade that has disappeared.
Richard knows! Have him tell about the cooked beasties across the current shunts.
73 Mac N8TT

--
J. Mc Laughlin - Michigan USA

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:25140-40159FDA-

<snip>
>
> I seem to be very lucky to never have damage with so many opportunities
> for damage. We never lost a transistor radio front end with countless
> strikes as evidenced by the pitted antennas. We know the coax arcs in
> broadcast stations. Most stations have automatic circuits to kill the
> transmitter when the coax arcs.
>
>
> In medium wave broadcast stations there is almost always a Faraday
> screen to keep down the harmonic radiation. It gets countless zaps as
> evidenced by pock marks and metal splattered about its shield box.Even
> so, the coax gets arcs. When you are on the air, transmitter energy
> keeps the arc alive once a transient has struck the arc. Most
> transmitters are equipped with a momentary kill relay whose d-c coil
> circuit is completed by the coax arc. As soon as the transmitter is
> killed, the relay is de-energized and the transmitter returns to the
> air.
>
> In the 2-way radio world, the transmitter is going to drop out in a
> moment when the mike button is released, or the station was in the
> receive mode when the lightning hit and there is no energy to sustain
> the arc.
>
> The arc prevents conveyance of the energy to the radio. I never saw a

> broadcast transmitter with evidence of lightning inside the
transmitter
> and we have a good ides that these stations get struck almost every
time
> a dark cloud passes by.
>
> Best regards, Richard Harrison, KB5WZI
>

1541. Re: @@@ Power Limit on J-Poles??????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 04:56:24 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <401B3578.5595CADA@cwis.net>
Source record: 101013

Ever thought about a 1/4 wave groundplane? Power is
limited by the type of insulator used in building it.
Then again, the same thing holds true for a 'J' pole.
'Doc

1542. Re: All band antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 05:25:06 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <dWGSb.361$tl5.345@bignews1.bellsouth.net>
Source record: 101014

The windom type antennas work very well as a convenient means of doing a pretty fair job of getting signals out. They are generally user friendly in terms of bandswitching.

Go here and check these out for something that appeals to you. I run the 160m Beam Special, and think well of it.

The same length wire, fed with ladderline in the center, works out just as well, all other factors being equal.

The 160m Beam Special works as primarily a top loaded 32' vertical (yes, there is some horizontal radiation, too) on 160m to give low angle radiation.

1543. Re: @@@ Power Limit on J-Poles??????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 05:59:55 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <vvHSb.12608$V9.11920@newssvr23.news.prodigy.com>
Source record: 101015

"'Doc" <w5lz@cwis.net> wrote in message news:401B3578.5595CADA@cwis.net...
> Ever thought about a 1/4 wave groundplane? Power is
> limited by the type of insulator used in building it.
> Then again, the same thing holds true for a 'J' pole.

Plumber's Delight J-pole doesn't require
an insulator at all... I'd imagine that it could
take all the power you could pour into it,
probably take way over legal limit to melt
a half-inch copper pipe J-pole.

--
Steve
KI5YG
.

1544. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 07:01:31 UTC
From: richardharrison@webtv.net
Message-ID: <22052-401B52CB-158@storefull-3253.bay.webtv.net>
Source record: 101016

Tdonaly wrote:
"In order to show that an inductor can be treated as a transmission line, in the way that you want to do it, you have to show that your inductor has an exponential potential gradient along its length when terminated in a certain impedance."

Inductors are used to replace a missing length of an antenna which often would be located at the inductor. The coil is an antenna length surrogate. Its delay and impedance characteristics match that of the missing length of straight wire.

The logic is simple. Natural growth or decline is a change based upon a certain fraction of the available energy. One segment of of a radiator or a line extracts a certain energy fraction. The next similar segment extracts the same percentage, but the extraction is larger or smaller because the remaining energy it has to work with is is larger or smaller. It`s a natural law of growth or decline.

It is "exponential" because that`s the name given to change "as a percentage of the energy of the energy involved". It`s growth or shrinkage at the "natural rate".

It is exactly due to agreement in the amplitude and phase behaviors of antennas and transmission lines that Terman refers his readers to his transmission line section to explain antennas.

Best regards, Richard Harrson, KB5WZ

1545. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 07:38:07 UTC
From: "Matt Osborn"
Message-ID: <rjmm10lju4mnj8itda50n91g66jh2v9g16@4ax.com>
Source record: 101017
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

On Fri, 30 Jan 2004 19:59:06 -0800, Bill Turner <noway@nohow.com>
wrote:

>
>Nonsense. Go check your dictionary. We are a democratic republic.

" 2. a. A state in which the supreme power rests in the people and
their elected representatives or officers, as opposed to one governed
by a king or similar ruler; a commonwealth. Now also applied loosely
to any state which claims this designation."

Oxford English Dictionary

Such a state is a democratic form of government. Saying a 'democratic
republic' is akin to saying a 'vehicle chevy'.

1546. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 07:53:06 UTC
From: Gray Shockley <gray-87a@cybercoffee.org>
Message-ID: <0001HW.BC40BB020003007B1343AD50@news.giganews.com>
Source record: 101018
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

On Sat, 31 Jan 2004 1:38:07 -0600, Matt Osborn wrote
(in message <rjmm10lju4mnj8itda50n91g66jh2v9g16@4ax.com>):

> On Fri, 30 Jan 2004 19:59:06 -0800, Bill Turner <noway@nohow.com>
> wrote:
>
>>
>> Nonsense. Go check your dictionary. We are a democratic republic.
>
> " 2. a. A state in which the supreme power rests in the people and
> their elected representatives or officers, as opposed to one governed
> by a king or similar ruler; a commonwealth. Now also applied loosely
> to any state which claims this designation."
>
> Oxford English Dictionary
>
> Such a state is a democratic form of government. Saying a 'democratic
> republic' is akin to saying a 'vehicle chevy'.

Hey! I can do a Venn diagram on that.

/gray/

1547. Re: @@@ Power Limit on J-Poles??????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 07:59:50 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <401B6076.20E480F7@cwis.net>
Source record: 100919

Stephen Cowell wrote:

> Plumber's Delight J-pole doesn't require
> an insulator at all... I'd imagine that it could
> take all the power you could pour into it,
> probably take way over legal limit to melt
> a half-inch copper pipe J-pole.
> __
> Steve
> KI5YG
> .

None at all? Are you real sure about that?
Think about it...
'Doc

1548. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 08:44:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hiqm10tg4j4muhn6tlieljabrs15ifm0bm@4ax.com>
Source record: 100920

On 31 Jan 2004 02:18:33 GMT, tdonaly@aol.com (Tdonaly) wrote:

>This is vintage Moore.

You were expecting chopped liver? Tom, you and Wes and.... know
better.

73's
Richard Clark, KB7QHC

1549. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 08:47:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4nqm10d7id6djr04ksnrfn66dpeo564g6n@4ax.com>
Source record: 100921

On Fri, 30 Jan 2004 19:22:03 -0700, Wes Stewart <*n7ws*@arrl.net>
wrote:

>But even I know that you can just ftp your files to
>your web page. You don't need to create a link on a page, just tell
>us the file name. I do it all the time.

This is the up and coming thing of pre-schoolers now. 45% are making
their own web sites. They also know EM theory better.

73's
Richard Clark, KB7QHC

1550. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 09:59:40 UTC
From: K7JEB <k7jeb.remove_this@qsl.net>
Message-ID: <H1LSb.15900$tP1.2022@fed1read07>
Source record: 100922

>> I originally wrote:
>> Consider using an UNBALANCED, open-wire line. It would consist
>> of three wires fairly close together with uniform spacing
>> between them. The center wire is "hot" and the outer two
>> are "ground".

> Cecil, W5DXP asks:
> Hi Jim, what would be the range of Z0's possible with this
> configuration?

Jasik has a formula for this type of line:

Zo = (207/sqrt(epsilon))*(log(1.59*(Dist/dia)))

where Zo is in ohms, epsilon is relative dielectric constant
of surroundings (=1.0 in this case), sqrt is the square root
function, log is the base-10 logarithm function, Dist is the
distance between the center wire and one of the outside wires
and dia is the diameter of the wires used, Dist and dia being
in the same units.

Setting dia=0.116 inches (#10 AWG stranded wire) and varying
Dist gives:

Dist = 1.0 inch ..... Zo = 235 ohms
Dist = 2.0 inches ..... Zo = 297 ohms
Dist = 4 inches ..... Zo = 360 ohms
Dist = 10 inches ..... Zo = 442 ohms

The trade-off would be between the desireable high impedance
from wide spacing and leakage suppression from close spacing.
Dist=4 inches looks about right.

Although I haven't tried it, my guess is that common electric-
fence hardware would be adequate for supports and insulation,
but the conductors should be copper (and #10 gauge). Stacking
the conductors vertically should simplify the mechanical aspects
and possibly partially suppress sky-wave leakage from the line.

Jim, K7JEB
Glendale, AZ

1551. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 10:41:28 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0401310241.9140445@posting.google.com>
Source record: 100923

"Jack Painter" <223bthp@cox.net> wrote in message news:<LRySb.3240$gl2.2307@lakeread05>...
> Thanks to all responding. A 20m antenna on top of the tower was demolished,
> pieces landing 100' away. That one single feedline was connected and
> operating a wx-alert system in the shop.

Big omission... I now think the tower was hit, and piped the energy to
the wx-alert system which then routed it to the rest of the house via
the power wiring. Was that coax routed down to and snubbed to ground
at the base of the tower? From the damage, it almost sounds like it
was elevated in the air from the tower to the shop.

The house suffered zero structural
> damage, the roofline and 2 antennas on it was definitely not the source of
> any of the strikes. The outbuildings also suffered no structural damage or
> even marks. The coax(s) most definitely carried the lightning, now whether
> they got it from the ground current, tower, tower ground radials, that's
> anybody's guess. Coming into the shop, that was likely from the 20 meter
> feedline, but the explosion inside the shop right next to my friend was just
> "energy", the same kind that blew up floor tile from a patch cord hanging on
> a hook by itself. The computers destroyed were from energy in the AC wiring
> and cable modem network.

I bet the wx-alert box was the point where it got into the ac wiring.
I just can't see lightning energy traveling towards the house on a
coax that is on the ground. Once the lightning is at ground, normally
it should stay there. It's where it wants to go. I don't see it
ignoring the ground and radials at the tower, and preferring to go
towards the house on the coax, if the coax wasn't even connected close
to the tower. "I assume it was unhooked, and just laying on the
ground."
>
> From all I have read here, this hit was (luckily) one of rare intensity and
> diversity. Two strikes to the tower later in the summer of last year had
> only minor impact on anything.

I wouldn't leave any more unprotected feedlines hooked up during
storms. I think all would have been ok, if not for that. Or at least
assuming there was no strike on the power lines a short distance from
your house when this happened. MK

1552. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 10:42:24 UTC
From: K7JEB <k7jeb.remove_this@qsl.net>
Message-ID: <PFLSb.15904$tP1.730@fed1read07>
Source record: 100924

Doug, N4IJ, wrote:

> ... As for the comment that the feedline would be
> part of the antenna at that long of a run, that
> was part of the original post, and my worrying
> about the antenna intself unbalancing the feedline.
> The way I understand it, the feedline should not
> radiate or be part of the antenna if it is balanced.

I think that given the length of your run (275 ft) and the use of close-spaced commercial "window line", any common-mode problems on the line would sort themselves out before they got back to your shack. Giving the line a relatively tight twist (1 twist/6 inches) might help too.

Given that you intend to drive a relatively non-directional antenna, I don't think feedline radiation will be a big problem system-wise if it is 1/10 the total radiated power. (ie: suppressed 10 dB).

Nobody wants to take me up on the unbalanced ladder-line. Oh, well!

Jim, K7JEB
Glendale, AZ

1553. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 10:55:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b8a5b_7@corp.newsgroups.com>
Source record: 100925
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Bill Turner wrote:
> On Fri, 30 Jan 2004 17:36:29 -0800, "Jim" <NN7K@Reno.Rmci.Net> wrote:
>>In this REPUBLIC (our founding fathers wisely refrained from creating a
>>DEMOCRACY-

> Nonsense. Go check your dictionary. We are a democratic republic.

Point is, we are not a pure democracy where every citizen votes on
every law and there are no inalienable rights. The Shiite Muslims
want to set up a pure democracy. The US is against it.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1554. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 11:01:02 UTC
From: kh2d@my-deja.com
Message-ID: <401b8ab5.382773379@newsgroups.bellsouth.net>
Source record: 100926
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

On Sat, 31 Jan 2004 04:55:17 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Point is, we are not a pure democracy where every citizen votes on
>every law and there are no inalienable rights. The Shiite Muslims
>want to set up a pure democracy. The US is against it.
>--
>73, Cecil http://www.qsl.net/w5dxp

Cecil, happy new year. Quit crossposting this crap to the DX
newsgroup.

73, Jim KH2D http://kh2d.net/stuff

1555. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 11:37:53 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b9457_7@corp.newsgroups.com>
Source record: 100928

Richard Harrison wrote:
> Inductors are used to replace a missing length of an antenna which often
> would be located at the inductor. The coil is an antenna length
> surrogate. Its delay and impedance characteristics match that of the
> missing length of straight wire.

Hi Richard,
I know what you mean and it is not an *exact* match. (And you did not say or imply that it was an exact match.) From a 1/4WL monopole to a loaded mobile antenna, the feedpoint impedance can drop from about 35 ohms to about 12 ohms. That probably means that the in-phase reflected current has increased from one configuration to the other and the out-of-phase reflected voltage has also increased. In other words, the antenna reflection coefficient is higher for the loaded monopole which would make it less efficient.

We know that, at resonance, the net feedpoint voltage is in phase with the net feedpoint current. But the component forward and reflected currents do not have to be in phase. And the component forward and reflected voltages do not have to be 180 degrees out of phase.

In fact, there is a considerable amount of interference going on at the feedpoint of a standing-wave antenna. If one calculates or measures the s11 reflection coefficient s-parameter at the feedpoint of a dipole, it will have a magnitude in the ballpark of about 0.85
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1556. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 11:38:55 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <jtMSb.152153$nt4.706203@attbi_s51>
Source record: 100927

Cecil Moore wrote:
> Dave Shrader wrote:
>
>> Two possibilities exist: 1) Charge is stored in the interwinding
>> capacitance; or, 2) EM radiation is occurring in the coil i.e. the
>> winding length is a significant portion of a wavelength!!
>>
>> What's your Physics say?
>
>
> Don't know about Tom's physics, but mine says the net current in an
> unterminated transmission line can be zero at one point and 100 amps
> 1/4 WL away. Tom (apparently) thinks that is a violation of the
> conservation of charge principle.

Hey Cecil, What's this 'conservation of charge'?

I'm aware of the 'Conservation of Energy', 'Conservation of Momentum',
'conservation of our wetlands', etc.

For your example: Conservation of Energy yields: 1/2*L*I^2 = 1/2*C*V^2
at the high current end and the high voltage end respectively.

My Physics and my brain must be getting old!!

1557. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 11:43:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b95b3$1_7@corp.newsgroups.com>
Source record: 100929
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Matt Osborn wrote:

> Bill Turner <noway@nohow.com> wrote:
>>Nonsense. Go check your dictionary. We are a democratic republic.
>
> " 2. a. A state in which the supreme power rests in the people and
> their elected representatives or officers, as opposed to one governed
> by a king or similar ruler; a commonwealth. Now also applied loosely
> to any state which claims this designation."

You left out one of the definitions which can be described as a pure
democracy. From Webster's New Universal Unabridged: "... the supreme
power is vested in the people and exercised directly by them ..."
That is the type of democracy that voted for Socrates to drink
hemlock, which he did.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1558. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 11:48:48 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <ACMSb.146789$Rc4.1183506@attbi_s54>
Source record: 100930
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Matt Osborn wrote:

SNIP

>>Nonsense. Go check your dictionary. We are a democratic republic.
>
>

The USA is not a democratic republic! That can still lead to abusive government.

The USA is a CONSTITUTIONAL REPUBLIC with the responsibility to govern divided among 3 separate but legally equal branches, executive, legislative, and judicial.

The USA Constitution guarantees the principle that all rights belong to the people and that certain rights are inviolable!

The Democratic Political Party in the USA conveniently forgets that, but the Federal and Supreme Courts remind them as needed!

1559. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 11:50:54 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b9764$1_7@corp.newsgroups.com>
Source record: 100931

K7JEB wrote:
> Nobody wants to take me up on the unbalanced ladder-line.
> Oh, well!

Hi Jim,
I'm thinking it has a distinct advantage over balanced ladder-line. It appears to me that it can be formed into a helix where the outside insulated wires are touching without suffering the ill effects of balanced ladder-line. This is interesting to me because I vary the length of the ladder-line to achieve a match. Now if it could only be coiled up in a box like coax.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1560. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 11:54:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b9825_7@corp.newsgroups.com>
Source record: 100932
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

kh2d@my-deja.com wrote:
> Cecil, happy new year. Quit crossposting this crap to the DX
> newsgroup.

All I did was reply to a posting on r.r.a.a
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1561. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 12:03:49 UTC
From: Mike Terry <miketerry73@btinternet.com>
Message-ID: <bvg5j5$6l3$1@sparta.btinternet.com>
Source record: 100933
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Totally off topic so please do not post to all these newsgroups.

Than you.

1562. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 12:12:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401b9c58_7@corp.newsgroups.com>
Source record: 100934

Dave Shrader wrote:
> Hey Cecil, What's this 'conservation of charge'?

From _University_Physics_ 9th edition by Young and Freedman:
"principle of conservation of charge: The algebraic sum of all
the electric charges in any closed system is constant."
Example: If one combines a proton (+1) and an electron (-1)
one gets a neutron (0) which will often decay back into a
proton (+1) and an electron (-1).

In practice, it means that if N electrons flow into both ends
of a coil during 1/2 cycle, N electrons will flow out of both
ends of the same coil during the next 1/2 cycle. Thus, current
flowing into both ends of a phase-reversing coil at the same
time does NOT violate the conservation of charge principle
when averaged over an entire cycle.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1563. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 12:28:46 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <2cNSb.152306$nt4.707071@attbi_s51>
Source record: 100935
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Cecil Moore wrote:

> kh2d@my-deja.com wrote:
>
>> Cecil, happy new year. Quit crossposting this crap to the DX newsgroup.
>
>
> All I did was reply to a posting on r.r.a.a

Me too!

1564. Off topic posts - Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 12:40:23 UTC
From: Mike Terry <miketerry73@btinternet.com>
Message-ID: <bvg7nm$2tu$1@titan.btinternet.com>
Source record: 100936
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

```
"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:2cNSb.152306$nt4.707071@attbi_s51...
> Cecil Moore wrote:
>
> > kh2d@my-deja.com wrote:
> >
> >> Cecil, happy new year. Quit crossposting this crap to the DX newsgroup.
> >
> >
> > All I did was reply to a posting on r.r.a.a
>
> Me too!
>

I suggest we all "block sender" anyone who sends an off topic post and tell
the person not to waste their time!
```

1565. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 13:29:00 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <x4OSb.4595$gl2.2741@lakeread05>
Source record: 100937

Mark:

"Mark Keith" <nm5k@wt.net> wrote in

> > Thanks to all responding. A 20m antenna on top of the tower was
demolished,
> > pieces landing 100' away. That one single feedline was connected and
> > operating a wx-alert system in the shop.
>
> Big omission... I now think the tower was hit, and piped the energy to
> the wx-alert system which then routed it to the rest of the house via
> the power wiring. Was that coax routed down to and snubbed to ground
> at the base of the tower? From the damage, it almost sounds like it
> was elevated in the air from the tower to the shop.

That feedline went underground at base of tower with all the rest. At the main feedline disconnect point (20' from tower and about 50' from shop), it went toward shop with two other feedlines, only the 20m was connected and running SkyWarn. Skywarn tranceiver was powered by pair of 12vdc batteries, which had a smart-charger (float) charge connected via AC power. All of that equipment was destroyed including things near to it and not connected.

> I bet the wx-alert box was the point where it got into the ac wiring.
> I just can't see lightning energy traveling towards the house on a
> coax that is on the ground. Once the lightning is at ground, normally
> it should stay there. It's where it wants to go. I don't see it
> ignoring the ground and radials at the tower, and preferring to go
> towards the house on the coax, if the coax wasn't even connected close
> to the tower. "I assume it was unhooked, and just laying on the
> ground."

All other feedlines to shop and house were laying diconnected at the two PVC risers coning up out of ground about 20' from base of tower, 50' from shop.

> I wouldn't leave any more unprotected feedlines hooked up during
> storms. I think all would have been ok, if not for that. Or at least
> assuming there was no strike on the power lines a short distance from
> your house when this happened. MK

Cable tv was knocked out for nearby homes as well, one or more utiilty poles may have been hit at the same time.

On the 20m, It only takes one occurrence of bad judgement.

Jack

1566. Re: Off topic posts - Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 13:32:10 UTC
From: Stinger <contact@newsserveronly.com>
Message-ID: <E4OSb.3381$aU6.3278@bignews3.bellsouth.net>
Source record: 100938
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

You would end up missing a LOT of posts that way, since many of the people that are replying to those posts don't realize that they've been cross-posted, but normally make good contributions and on-topic posts to the newsgroup.

Try using "Ignore Thread" or "Ignore Conversation" (depending upon your newsreader) and at least you'll usually only have to deal with the first one. In the case of the off-topic "Democracy/Republic" one above, it was pretty obvious.

-- Stinger

"Mike Terry" <miketerry73@btinternet.com> wrote in message
news:bvg7nm$2tu$1@titan.btinternet.com...
>
> "Dave Shrader" <david.shrader@comcast.net> wrote in message
> news:2cNSb.152306$nt4.707071@attbi_s51...
> > Cecil Moore wrote:
> >
> > > kh2d@my-deja.com wrote:
> > >
> > >> Cecil, happy new year. Quit crossposting this crap to the DX
newsgroup.
> > >
> > >
> > > All I did was reply to a posting on r.r.a.a
> >
> > Me too!
> >
>
> I suggest we all "block sender" anyone who sends an off topic post and
tell
> the person not to waste their time!
>
>

1567. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 14:04:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401bb6c6_4@corp.newsgroups.com>
Source record: 100939

Wes Stewart wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> |Don't know how. But assuming I can learn how to do that in HTML, I'll
> |try to post those files tomorrow.
>
> As you can see from my home page I'm not, nor do I want to be, a web
> page designer. But even I know that you can just ftp your files to
> your web page. You don't need to create a link on a page, just tell
> us the file name. I do it all the time.

Thanks for the tips, Wes, and it does work. The names of the .EZ files
are on the .gif graphic that I prepared which illustrates the current
magnitudes and phases for 3/2WL phased arrays.

http://www.qsl.net/w5dxp/phasesbw.gif
--
73, Cecil, W5DXP

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1568. Re: 1.2GHz YAGIS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 14:20:10 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <bQOSb.4604$gl2.2683@lakeread05>
Source record: 100940

Why don't you donate these to LIMARC?

Pete

"N2ION" <n2ion@aol.com> wrote in message
news:20040130071435.18858.00001162@mb-m28.aol.com...
> I HAVE FOR SALE, 4 KLM 1.2-44LBX YAGIS
> EMAIL IF SERIOUSLY INTERESTED ONLY

1569. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 15:40:04 UTC
From: Charles Brabham <n5pvl@sbcglobal.net>
Message-ID: <o%PSb.12092$QA7.11902@newssvr22.news.prodigy.com>
Source record: 100941
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

<kh2d@my-deja.com> wrote in message
news:401b8ab5.382773379@newsgroups.bellsouth.net...
> On Sat, 31 Jan 2004 04:55:17 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
> >Point is, we are not a pure democracy where every citizen votes on
> >every law and there are no inalienable rights. The Shiite Muslims
> >want to set up a pure democracy. The US is against it.
> >--
> >73, Cecil http://www.qsl.net/w5dxp
>
> Cecil, happy new year. Quit crossposting this crap to the DX
> newsgroup.

Quit cross-posting this crap to ANY ham radio newsgroup. What's the matter with you guys, a head injury or something? Overmedicated this morning?

Charles, N5PVL

1570. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 15:42:00 UTC
From: mlori@ieee.org
Message-ID: <ddff27eb.0401310742.29f5532f@posting.google.com>
Source record: 100942

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<58hl10dt2rfd890qqh1e5hukdqipusccjq@4ax.com>...
> On 30 Jan 2004 02:16:09 -0800, mlori@ieee.org (Maurizio) wrote:
>
> >Hi Richard,
> >my feeling is that in the past some studies have tried to find out the
> >structure and relative strenght of the ground/space wave fields.
> >Experience has then given rules to evaluate the losses due to the high
> >reactive fields near the antenna with the lossy ground (i have seen a
> >paper using a 6 dB factor to take into account antenna mismatch and
> >such nearby losses).
> >It maybe that this is almost all that has been done.
> >Do you agree?
> >
> >
> >Maurizio
>
> Hi Maurizio,
>
> I worked on this a couple of years ago:
> http://home.comcast.net/~kb7qhc/antennas/Fields/index.htm
>
> It deals not so much with the variation of ground proximity with a
> standard antenna, instead it works against the standard ground with a
> variety of antennas.
>
> Due to the intricacy of geometry afforded by a fractal form, this:
> http://home.comcast.net/~kb7qhc/antennas/Fields/fractal/Koch/Quadratic/index.htm
> is the most interesting. Unfortunately, the legacy of academic
> fractal research (sic) has offered no more interest than the morbid
> study of Down's Syndrome among the Armadillo population.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
It seems that you have tried to shorten somewhat these cumbersome
antennas with the fractal approach.
I have seen recently an interesting paper on antennas & propagation
proceedings/magazine that was comparing the performance of fractal and
non-fractal designs.
Regarding the graphs you show in the web pages, if I have well
understood, you compare the E/H local fields (amplitudes) with the
free space impedence.

It is an alternative way to look at the near reactive fields.
However, the antenna that was simulated in the paper I was talking
about is a real antenna that has been modellized with a dedicated MOM
program and with the correct antenna geomety, and results have been
compared with measurements.
From this comparison it has been necessary the introduction of such
factor.
It seems to me that the 6 dB factor had to take into account all
losses from the transmitter to the radiated fields.
My concern is how this factor can be justified.
6 dB is a lot in terms of antenna usefull coverage distance.

Maurizio

1571. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 16:04:05 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <VlQSb.148720$6y6.2903783@bgtnsc05-news.ops.worldnet.att.net>
Source record: 100944

Cecil,

This has become unusually entertaining.

You have declared experimentation to be unnecessary, e.g., your Diamond antenna story. You have declared math models to be unnecessary and incorrect on numerous occasions.

I have worked with a lot of scientists in my career; some were experimentally biased, some were theoretically biased, and many understood that both approaches were useful.

However, I do not believe I have ever encountered a "scientist" who rejected both experimental and mathematical approaches at the same time.

73,
Gene
W4SZ

Cecil Moore wrote:

<snip>

> If your math disagrees with
> reality, it is simply wrong and has turned into a religious belief.
> You are free to worship at the alter of mathematics but please don't
> expect the rest of us scientists to join you there.

1572. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 16:04:55 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <HmQSb.65843$U%5.376412@attbi_s03>
Source record: 100943

Cecil
Regarding inductance and computor programs
and the drawings shown in your post addition
May I suggest the following
Since a straight line radiator contains the elements of resistance,
capacitance and inductance it can also be shown as a loop radiator (many
books show it that way) If you replace some or all of the center portion
by a loop circuit it will clearly show a phase change.
This method serves as a substitute for the insertion of a lumped load and
changing it from a dimensionaless object to one of dimensions.that can
radiate.
If one shows this change it would add insight to the
the drawings where inductor physical length can be portrayed.

Regards
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401bb6c6_4@corp.newsgroups.com...
> Wes Stewart wrote:
>
> > <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> > |Don't know how. But assuming I can learn how to do that in HTML, I'll
> > |try to post those files tomorrow.
> >
> > As you can see from my home page I'm not, nor do I want to be, a web
> > page designer. But even I know that you can just ftp your files to
> > your web page. You don't need to create a link on a page, just tell
> > us the file name. I do it all the time.
>
> Thanks for the tips, Wes, and it does work. The names of the .EZ files
> are on the .gif graphic that I prepared which illustrates the current
> magnitudes and phases for 3/2WL phased arrays.
>
> http://www.qsl.net/w5dxp/phasesbw.gif
> --
> 73, Cecil, W5DXP
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1573. Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 16:07:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvgjrl$885$1@titan.btinternet.com>
Source record: 100945

Take a close-wound wire helix of diameter D metres and having N = 500 turns per meter. Wire diameter approx 2mm.

All formulae available from Terman, Kraus, ARRL, etc., etc.

C = 55.5 / (Ln(2 * H / D) - 1) picofarads per meter.

L = Square(N * Pi * D) / 10 microhenrys per meter.

TransLine impedance, Zo = Sqrt(L / C) ohms.

Propagation Velocity = 1 / Sqrt(L * C) metres per second.

Take a length of H =1.5 metres of this helix and use it as a short vertical antenna above a good ground.

It will resonate as a 1/4-wave vertical at 3.5 MHz.

Zo = 3243 ohms.

Velocity factor = 0.0701

Radiation Resistance = 0.176 ohms.

etc., etc.,

It's so simple you can't believe it. ;o)

Reg.

1574. WTD: ATV 70 cm

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 16:44:27 UTC
From: FM SWL <okiemansc@yahoo.com>
Message-ID: <LXQSb.4714$F23.4048@newsread2.news.pas.earthlink.net>
Source record: 100946
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.ham-radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I am interested in 440 mHz. ATV. Would like to buy transmitter,downconverter especially.Projects OK. Tell me what you have and what you want for it.Not looking to spend a fortune can buy it new if I want to go that way.
THANKS !!

1575. Re: @@@ Power Limit on J-Poles??????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 16:47:13 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bvgm6p06bh@enews1.newsguy.com>
Source record: 100950

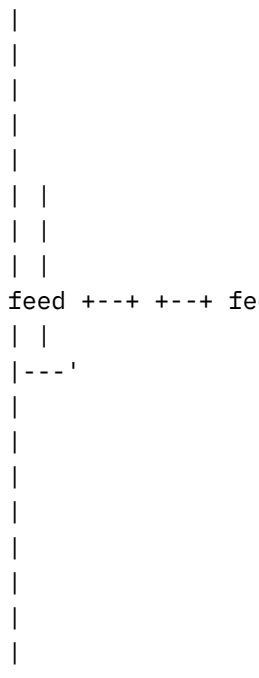
"'Doc" <w5lz@cwis.net> wrote in message news:401B6076.20E480F7@cwis.net...
>
>
> Stephen Cowell wrote:
>
> > Plumber's Delight J-pole doesn't require
> > an insulator at all... I'd imagine that it could
> > take all the power you could pour into it,
> > probably take way over legal limit to melt
> > a half-inch copper pipe J-pole.
> > __
> > Steve
> > KI5YG
> > .
>
> None at all? Are you real sure about that?
> Think about it...
> 'Doc

Yeah, no insulators at all... using plumber's delight.

The bottom of the J is strapped together. The feed point is then moved up from the bottom along the 1/4 wave matching section until a match is obtained.

This approach can be pretty nice. I used three sections of steel mast for a 30 feet tall pipe, grounded at the bottom for lightning protection. I then added a 1/4 wave piece of conduit 3/4 wave down from the top strapped with sheet steel. Made a 1/2 wave balun from coax and found the lowest SWR feed point along the matching section. The entire arrangement was at earth ground, so no floating elements. Some designs found in books and on the Web feed them directly without the benefit of a balun. I've done it both ways and have had great success.

.
|
|
|
|
|
|
|
|
|
|



http://www.packetradio.com/jpol.htm
http://www.qsl.net/wb8erj/146jpole.htm

However, I'm not saying you can pump a limitless amount of power into it.
There are always coax limitations.

Have fun.

John

1576. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 16:48:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401bdd31_6@corp.newsgroups.com>
Source record: 100947

Gene Fuller wrote:
> However, I do not believe I have ever encountered a "scientist" who
> rejected both experimental and mathematical approaches at the same time.

Gene, experimenting with photocells to prove that day follows night
would be a waste of my time. I don't reject the concept of experimenting,
just experiments that waste my time for no benefit. If a math model says
that day doesn't follow night, it should be rejected.

A 3/4WL monopole is not a good UHF antenna. However, if the bottom
1/4WL is separated from the top 1/2WL by a phase-reversing coil,
the antenna has gain over a quarterwave monopole. The Diamond antenna
engineers don't care about your sacred cows.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1577. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 16:54:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401bde80_6@corp.newsgroups.com>
Source record: 100949

Reg Edwards wrote:

> Take a close-wound wire helix of diameter D metres and having N = 500 turns
> per meter. Wire diameter approx 2mm.
>
> All formulae available from Terman, Kraus, ARRL, etc., etc.
>
> C = 55.5 / (Ln(2 * H / D) - 1) picofarads per meter.
>
> L = Square(N * Pi * D) / 10 microhenrys per meter.
>
> TransLine impedance, Zo = Sqrt(L / C) ohms.
>
> Propagation Velocity = 1 / Sqrt(L * C) metres per second.
>
> Take a length of H =1.5 metres of this helix and use it as a short vertical
> antenna above a good ground.
>
> It will resonate as a 1/4-wave vertical at 3.5 MHz.
>
> Zo = 3243 ohms.
>
> Velocity factor = 0.0701
>
> Radiation Resistance = 0.176 ohms.
>
> etc., etc.,
>
> It's so simple you can't believe it. ;o)

Thanks Reg, this one is a keeper. If you made the helix long enough to
cause a phase reversal in the current, would the world come to an end?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1578. Re: @@@ Power Limit on J-Poles??????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 16:55:29 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <56RSb.12667$QI2.4487@newssvr23.news.prodigy.com>
Source record: 100948

"'Doc" <w5lz@cwis.net> wrote in message news:401B6076.20E480F7@cwis.net...
>
>
> Stephen Cowell wrote:
>
> > Plumber's Delight J-pole doesn't require
> > an insulator at all... I'd imagine that it could
> > take all the power you could pour into it,
> > probably take way over legal limit to melt
> > a half-inch copper pipe J-pole.

...

> None at all? Are you real sure about that?
> Think about it...

Well, you're welcome to come look in my garage...
I have a J-pole for 6 meters, shunt-fed. All parts
of the antenna/Q-line are at DC potential... it's
a solid piece of copper. You can ground the
'handle', hurts not a whit. If your J-pole has an
insulator in the middle, with a phasing section,
then it's a 'Super J', not a normal J. A normal
J-pole consists of the Q-line matching section
(the tuning fork part) and a half-wave radiator
just above that.

--
Steve
KI5YG
.

1579. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 17:04:02 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401be0c8$1_6@corp.newsgroups.com>
Source record: 100951

Cecil Moore wrote:
> Thanks for the tips, Wes, and it does work. The names of the .EZ files
> are on the .gif graphic that I prepared which illustrates the current
> magnitudes and phases for 3/2WL phased arrays.
>
> http://www.qsl.net/w5dxp/phasesbw.gif

For anyone who wants to download those EZNEC files, be sure the file
names are capitalized - UNIX strikes again.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1580. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 17:24:18 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040131122418.21921.00000739@mb-m22.aol.com>
Source record: 100952

>This has become unusually entertaining.
>..... snipydyduda
>However, I do not believe I have ever encountered a "scientist" who rejected
>both experimental and mathematical approaches at the same time.
>
>73,
>Gene
>W4SZ
>

Hey,
this is getting off on the tangent, away from the original "problem".
I and Barry W9UCW found, measured differences in the typical loading coil currents in order of 40 - 60%. See article and pictures on my web www.K3BU.us.
W8JI and flat earth society proclaimed it can't be so. They argued and "calculated" that current at both ends of a loading coil in quarter wave loaded radiator has to be the same. W5DXP explained why the current is different, other sources and past publications affirm that.

As I mentioned, time permitting, I will put together article explaining what is happening, describe experiments that can be replicated by non-believers and elaborate on the significance of the effect on the design of shortened (loaded) antennas.

Nobody has argued the seven points I raised earlier, and those who measured, including W8JI found that current IS different (but still says it is NOT).

The reality is that current is different, Eznec can't model it, you can speculate and theorize all you want, it will not revert the Earth to be flat.
Big men will admit they were wrong, thank the enlighteners and RF life goes on.

Yuri, K3BU.us

1581. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 17:32:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401be758_6@corp.newsgroups.com>
Source record: 100953

Yuri Blanarovich wrote:
> Nobody has argued the seven points I raised earlier, and those who measured,
> including W8JI found that current IS different (but still says it is NOT).
>
> The reality is that current is different, Eznec can't model it, ...

Yuri, have you read Wes's article? Using wire segments, he modeled a loading
coil in EZNEC. His segmented wire model of a coil shows a current taper
through the coil. It's on his web page at: http://www.qsl.net/n7ws
You can also download Wes's zipped EZNEC files.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1582. Re: Off topic posts - Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 17:41:26 UTC
From: Roger Gt <not@here.net>
Message-ID: <aNRSb.18341$6l3.5844@newssvr27.news.prodigy.com>
Source record: 100954
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

```
--
X-No-Archive: yes

"Mike Terry" <miketerry73@btinternet.com> wrote in
message news:bvg7nm$2tu$1@titan.btinternet.com...
> "Dave Shrader" <david.shrader@comcast.net> wrote
in message
> news:2cNSb.152306$nt4.707071@attbi_s51...
> > Cecil Moore wrote:
> > > kh2d@my-deja.com wrote:
> > >
> > >> Cecil, happy new year. Quit crossposting
this crap to the DX newsgroup.
> > > All I did was reply to a posting on r.r.a.a
> > Me too!
>
> I suggest we all "block sender" anyone who sends
an off topic post and tell
> the person not to waste their time!

As requested: Mike Terry added to Kill file!
```

1583. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 17:42:31 UTC
From: "Matt Osborn"
Message-ID: <u6qn10h2tf254p6pk08b88l7klfi0bhc8u@4ax.com>
Source record: 100955
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

On Sat, 31 Jan 2004 11:48:48 GMT, Dave Shrader
<david.shrader@comcast.net> wrote:

>Matt Osborn wrote:
>
>SNIP
>
>>>Nonsense. Go check your dictionary. We are a democratic republic.
>>

Get your quuting straight, I did not write that.

1584. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 17:43:45 UTC
From: "Matt Osborn"
Message-ID: <u9qn1098ta8o081r7r16oppr5lvuu8vs3d@4ax.com>
Source record: 100956
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

```
On Sat, 31 Jan 2004 15:40:04 GMT, "Charles Brabham"
<n5pvl@sbcglobal.net> wrote:

>
><kh2d@my-deja.com> wrote in message
>news:401b8ab5.382773379@newsgroups.bellsouth.net...
>> On Sat, 31 Jan 2004 04:55:17 -0600, Cecil Moore
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>
>> >Point is, we are not a pure democracy where every citizen votes on
>> >every law and there are no inalienable rights. The Shiite Muslims
>> >want to set up a pure democracy. The US is against it.
>> >--
>> >73, Cecil http://www.qsl.net/w5dxp
>>
>> Cecil, happy new year. Quit crossposting this crap to the DX
>> newsgroup.
>
>
>Quit cross-posting this crap to ANY ham radio newsgroup. What's the matter
>with you guys, a head injury or something? Overmedicated this morning?
>

How do you know which group originated the message?
```

1585. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 17:54:01 UTC
From: Mike Terry <miketerry73@btinternet.com>
Message-ID: <bvgq3o$m3h$1@hercules.btinternet.com>
Source record: 100957
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Roger Gt" has now been added to my "block sender" list as he is completely off topic, its sad he doesn't know which newsgroups to post to.

Hopefully no one else will abuse these radio lists....lets get back to radio please...

73s & 88s

Mike

1586. WANT TO BUY ICOM IC-738

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 18:03:22 UTC
From: Josh <xppq@ispwest.com>
Message-ID: <bvgqle01g13@enews2.newsguy.com>
Source record: 100958

Seek to buy CLEAN IC 738(AT)\
what have you? power supply NOT needed

Josh N7XM xppq@ispwest.com

1587. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:03:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvgu5p$4d2$1@titan.btinternet.com>
Source record: 100959

```
--
.....................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....................................................
"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401bde80_6@corp.newsgroups.com...
> Reg Edwards wrote:
>
> > Take a close-wound wire helix of diameter D metres and having N = 500
turns
> > per meter. Wire diameter approx 2mm.
> >
> > All formulae available from Terman, Kraus, ARRL, etc., etc.
> >
> > C = 55.5 / (Ln( 2 * H / D ) - 1) picofarads per meter.
> >
> > L = Square( N * Pi * D ) / 10 microhenrys per meter.
> >
> > TransLine impedance, Zo = Sqrt( L / C ) ohms.
> >
> > Propagation Velocity = 1 / Sqrt( L * C ) metres per second.
> >
> > Take a length of H =1.5 metres of this helix and use it as a short
vertical
> > antenna above a good ground.
> >
> > It will resonate as a 1/4-wave vertical at 3.5 MHz.
> >
> > Zo = 3243 ohms.
> >
> > Velocity factor = 0.0701
> >
> > Radiation Resistance = 0.176 ohms.
> >
> > etc., etc.,
> >
> > It's so simple you can't believe it. ;o)
>
> Thanks Reg, this one is a keeper. If you made the helix long enough to
> cause a phase reversal in the current, would the world come to an end?
> --
> 73, Cecil
```

>
==========

I forgot to say it will also have a 'cosine' current distribution between
base and top.

The antenna 'end effect' can be accounted for if necessary.

When the helix is not close wound, the increase in velocity factor and the
reduction in Zo can be accounted for.

Axial mode radiation cannot be distinguished from normal mode but this is of
negligible consequence until helix circumference approaches 1/4 wavelength
which it never does in the present context.

Reg.

1588. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:07:07 UTC
From: tdonaly@aol.com
Message-ID: <20040131140707.28384.00001110@mb-m15.aol.com>
Source record: 100960

Richard Clark wrote,
>
>On 31 Jan 2004 02:18:33 GMT, tdonaly@aol.com (Tdonaly) wrote:
>
>>This is vintage Moore.
>
>You were expecting chopped liver? Tom, you and Wes and.... know
>better.
>
>73's
>Richard Clark, KB7QHC
>

Hi Richard,
yes, we do, but you can't get the monkeys to perform
unless you rattle their cage.
73,
Tom Donaly

1589. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:14:16 UTC
From: tdonaly@aol.com
Message-ID: <20040131141416.28384.00001112@mb-m15.aol.com>
Source record: 100961

Reg wrote,
(snip)
>
>It's so simple you can't believe it. ;o)
>----
>Reg.
>

You're right.
73,
Tom Donaly, KA6RUH

1590. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:20:18 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <SdTSb.40348$6O4.1155547@bgtnsc04-news.ops.worldnet.att.net>
Source record: 100962

Yuri,

You are absolutely correct; this thread has drifted beyond recognition.

Please note that I have never questioned your experiment or your data. I am merely commenting on the highly unscientific handwaving approach taken RRAA's most prolific "scientist".

73,
Gene
W4SZ

Yuri Blanarovich wrote:
>>This has become unusually entertaining.
>>..... snipydyduda
>>However, I do not believe I have ever encountered a "scientist" who rejected
>>both experimental and mathematical approaches at the same time.
>>
>>73,
>>Gene
>>W4SZ
>>
>
>
>
>
> Hey,
> this is getting off on the tangent, away from the original "problem".
> I and Barry W9UCW found, measured differences in the typical loading coil
> currents in order of 40 - 60%. See article and pictures on my web www.K3BU.us.
> W8JI and flat earth society proclaimed it can't be so. They argued and
> "calculated" that current at both ends of a loading coil in quarter wave loaded
> radiator has to be the same. W5DXP explained why the current is different,
> other sources and past publications affirm that.
>
> As I mentioned, time permitting, I will put together article explaining what is
> happening, describe experiments that can be replicated by non-believers and
> elaborate on the significance of the effect on the design of shortened (loaded)
> antennas.
>
> Nobody has argued the seven points I raised earlier, and those who measured,
> including W8JI found that current IS different (but still says it is NOT).
>
> The reality is that current is different, Eznec can't model it, you can
> speculate and theorize all you want, it will not revert the Earth to be flat.

> Big men will admit they were wrong, thank the enlighteners and RF life goes on.
>
> Yuri, K3BU.us

1591. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:21:06 UTC
From: tdonaly@aol.com
Message-ID: <20040131142106.28384.00001114@mb-m15.aol.com>
Source record: 100963

Cecil wrote,
>
>Thanks Reg, this one is a keeper. If you made the helix long enough to
>cause a phase reversal in the current, would the world come to an end?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

It also doesn't mean anything. Those formulas for C and L are just
good hand-waving approximations and nothing else. Nice try, though.
73,
Tom Donaly, KA6RUH

1592. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:32:18 UTC
From: tdonaly@aol.com
Message-ID: <20040131143218.28384.00001116@mb-m15.aol.com>
Source record: 100964

Cecil wrote,
>
>Tdonaly wrote:
>> O.k., Cecil, let's suppose you're right. Since there's more
>> current going into a coil than coming out, then the coil must be
>> storing charge, somewhere.
>
>Tom, Tom, Tom, we are talking about *net* current. The net current
>in an unterminated transmission line can be zero while 1/4WL away,
>it is 100 amps. Are you asserting that transmission lines don't
>conserve charge? Would you please put your brain in gear?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

That's a pretty incoherent post, Cecil. It's tough to have a good
argument with you if you won't take the time to understand what
I write. Maybe you're trying to sucker me into another 500 post
marathon. Forget it, my doctor says I have to eschew effort.
I'll attack your ideas again sometime when something else interesting
comes up. Otherwise, I'll just be chewing muh cabbage twice.
73,
Tom Donaly, KA6RUH

1593. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:37:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c04c3_3@corp.newsgroups.com>
Source record: 100966

Tdonaly wrote:
> yes, we do, but you can't get the monkeys to perform
> unless you rattle their cage.

Last time I checked, it was the monkeys who believe that a
two wavelength helical antenna doesn't have any phase changes.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1594. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:39:06 UTC
From: Jerry Bransford <jerrypb@mecox.net>
Message-ID: <uvTSb.3364$1O.2024@fed1read05>
Source record: 100965
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Matt, are you the same Jeeping Matt Osborn I know? :)

Jerry
--
Jerry Bransford
To email, remove 'me' from my email address
N6TAY, PP-ASEL
See the Geezer Jeep at
http://members.cox.net/jerrypb/

"Matt Osborn" <msosborn@spam_trap@attglobal.net> wrote in message
news:u9qn1098ta8o081r7r16oppr5lvuu8vs3d@4ax.com...
> On Sat, 31 Jan 2004 15:40:04 GMT, "Charles Brabham"
> <n5pvl@sbcglobal.net> wrote:
>
> >
> > ><kh2d@my-deja.com> wrote in message
> > >news:401b8ab5.382773379@newsgroups.bellsouth.net...
> > >> On Sat, 31 Jan 2004 04:55:17 -0600, Cecil Moore
> > >> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> > >>
> > >> >Point is, we are not a pure democracy where every citizen votes on
> > >> >every law and there are no inalienable rights. The Shiite Muslims
> > >> >want to set up a pure democracy. The US is against it.
> > >> >--
> > >> >73, Cecil http://www.qsl.net/w5dxp
> > >>
> > >> Cecil, happy new year. Quit crossposting this crap to the DX
> > >> newsgroup.
> > >
> > >
> > >Quit cross-posting this crap to ANY ham radio newsgroup. What's the
> matter
> > >with you guys, a head injury or something? Overmedicated this morning?
> > >
> >
> > How do you know which group originated the message?

1595. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:39:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c0553_3@corp.newsgroups.com>
Source record: 100968

Gene Fuller wrote:
> I am merely commenting on the highly unscientific handwaving approach
> taken RRAA's most prolific "scientist".

Quoting an accepted expert author is handwaving?????????????
Do you also believe that there are no phase changes in a
two wavelength long helical antenna?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1596. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:41:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i31o101qc82b85rf7jaju48cnb983oun76@4ax.com>
Source record: 100967

```
On 31 Jan 2004 19:32:18 GMT, tdonaly@aol.com (Tdonaly) wrote:
> I have to eschew
Gesundheit
```

1597. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:42:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c05ee$1_3@corp.newsgroups.com>
Source record: 100869

Tdonaly wrote:

> Cecil wrote,
>>Thanks Reg, this one is a keeper. If you made the helix long enough to
>>cause a phase reversal in the current, would the world come to an end?
>
> It also doesn't mean anything.

Tom, please build a two wavelength long helical antenna, measure the
current at various places, and then come back and tell us, with a
straight face, that the current phase never goes from positive to
negative.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1598. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:47:56 UTC
From: tdonaly@aol.com
Message-ID: <20040131144756.28384.00001118@mb-m15.aol.com>
Source record: 100870

Gene wrote,
>
>Cecil,
>
>This has become unusually entertaining.
>
>You have declared experimentation to be unnecessary, e.g., your Diamond
>antenna
>story. You have declared math models to be unnecessary and incorrect on
>numerous
>occasions.
>
>I have worked with a lot of scientists in my career; some were experimentally
>
>biased, some were theoretically biased, and many understood that both
>approaches
>were useful.
>
>However, I do not believe I have ever encountered a "scientist" who rejected
>both experimental and mathematical approaches at the same time.
>
>73,
>Gene
>W4SZ
>

Gene, people who come up with simple "my easy-to-understand,
the-scientists-think-
they-know-everything-but-don't" theories usually don't have much use for either

mathematics or experimentation. Indeed, why should they? Since the theories
they've
thought up in their heads already explain everything, mathematics and
experimentation are
merely redundant. It's the same logic that was used to burn what was left of
the
library at Alexandria (after the Christians had destroyed most of it, already):
everything
you need to know is in the Koran, so these books are useless.
73,
Tom Donaly, KA6RUH

1599. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:48:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c076b_3@corp.newsgroups.com>
Source record: 100872

Tdonaly wrote:

> Cecil wrote,
>
>>Tdonaly wrote:
>>>O.k., Cecil, let's suppose you're right. Since there's more
>>>current going into a coil than coming out, then the coil must be
>>>storing charge, somewhere.
>>
> It's tough to have a good > argument with you if you won't
> take the time to understand what I write.

At the point in the cycle where the voltage on the capacitor is zero,
all of the charge is *stored in the coil*. At the point in the cycle
where the current through the coil is zero, all the charge is stored
in the capacitor. I assumed you already knew that.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1600. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 19:52:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2j1o1090gas9frhohsc05ednn75ijh4ev9@4ax.com>
Source record: 100871

On 31 Jan 2004 17:24:18 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:

>The reality is that current is different, Eznec can't model it

Hi Yuri,

I would suggest that you visit a very informative site that says quite
the opposite with:
>Roy Lewallen, W7EL, author of EZNEC and Richard Clark, KB7QHC
>recommend workarounds to replace the coil with cylinder of similar
>size or breaking the coil to number of physical segments with appropriate inductances.

This may be found at:
http://www.k3bu.us/loadingcoils.htm

73's
Richard Clark, KB7QHC

1601. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 20:04:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4u1o10dm1l892vn6m81fhquicn5fe3a0lp@4ax.com>
Source record: 100873

On 31 Jan 2004 07:42:00 -0800, mlori@ieee.org (Maurizio) wrote:

>However, the antenna that was simulated in the paper I was talking
>about is a real antenna that has been modellized with a dedicated MOM
>program and with the correct antenna geomety, and results have been
>compared with measurements.
>From this comparison it has been necessary the introduction of such
>factor.
>It seems to me that the 6 dB factor had to take into account all
>losses from the transmitter to the radiated fields.
>My concern is how this factor can be justified.
>6 dB is a lot in terms of antenna usefull coverage distance.
>
>
>Maurizio

Hi Maurizio,

I am a trained Metrologist with advanced studies in Microwaves. The measure of power (which is intimately tied to any expression of dB) is very difficult to achieve with great accuracy. This means that measurements are always suspect when they purport to confound theory.

The logic of the MOM program that works at one wavelength expresses that it will work at all wavelengths. There is no scale determinacy whereby results in HF are corrupted in SHF. There is every potential for human error and measuring power reveals that quicker than any other effort.

A 6dB discrepancy is a human problem, and glaringly evident.

73's
Richard Clark, KB7QHC

1602. Re: @@@ Power Limit on J-Poles??????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 20:15:23 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <v1USb.7663$9a4.5233@nwrddc01.gnilink.net>
Source record: 100874

"John Smith" <jocjo_john@yooha.com> wrote in message
news:bvgm6p06bh@enews1.newsguy.com...
>
> "'Doc" <w5lz@cwis.net> wrote in message news:401B6076.20E480F7@cwis.net...
> >
> >
> > Stephen Cowell wrote:
> >
> > > Plumber's Delight J-pole doesn't require
> > > an insulator at all... I'd imagine that it could
> > > take all the power you could pour into it,
> > > probably take way over legal limit to melt
> > > a half-inch copper pipe J-pole.
> > > __
> > > Steve
> > > KI5YG
> > > .
> >
> > None at all? Are you real sure about that?
> > Think about it...
> > 'Doc
>
>
> Yeah, no insulators at all... using plumber's delight.
>
> The bottom of the J is strapped together. The feed point is then moved up
> from the bottom along the 1/4 wave matching section until a match is
> obtained.
>
> This approach can be pretty nice. I used three sections of steel mast for
a
> 30 feet tall pipe, grounded at the bottom for lightning protection. I then
> added a 1/4 wave piece of conduit 3/4 wave down from the top strapped with
> sheet steel. Made a 1/2 wave balun from coax and found the lowest SWR feed
> point along the matching section. The entire arrangement was at earth
> ground, so no floating elements. Some designs found in books and on the
Web
> feed them directly without the benefit of a balun. I've done it both ways
> and have had great success.
>
What keeps the mast below the J pole from radiating?
Dale W4OP

1603. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 20:24:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c0fcb$1_3@corp.newsgroups.com>
Source record: 100875

Tdonaly wrote:
> Gene, people who come up with simple "my easy-to-understand,
> the-scientists-think-they-know-everything-but-don't" theories ...

More hand-waving ad hominem attacks instead of one iota of
scientific evidence that Kraus is wrong? Tom, how many
electrical degrees does an electrical 1/2WL helical
antenna occupy? Could it be that there is a 180 degree
phase shift in the current from end to end?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1604. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 20:37:38 UTC
From: Dave Bushong <dbushong@adelphia.net>
Message-ID: <9ZWdnRHdntiwj4HdRVn_iw@adelphia.com>
Source record: 100876
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Mike Terry wrote:
> Totally off topic so please do not post to all these newsgroups.
>

I am better at spellchecking
> Than you.
>

are.

1605. Folded counterpoise?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 20:46:51 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <d04o10589j2aa4b51qs0q8skk2o1n3r6u5@4ax.com>
Source record: 100877

I am about to make a multiband QRP counterpoise along the lines of the one suggested in ARRL Low Power Communication at p. 6-2 -- which employs a 50 ft length of flat 5-conductor cable.

Rather than use the 5-conductor rotator cable the author suggests, I want to use ubiquitous 10-conductor computer rainbow ribbon cable, .05 pitch, zip construction, 28 AWG.

The author suggests a 50 ft length, which covers most bands from 10-80, with only the 80M counterpoise longer than 50 ft (it continues -- connected tail to head -- onto the next conductor for 15.7 ft.)

Having five additional conductors on my ribbon cable than the author had on his rotator cable, I want to add a few bands, 160M in particular. This needs to run 131 ft, which is two full 50 ft passes and one 31 ft length -- also to be connected tail to head, head to tail, tail to head -- like a collapsed letter "Z" (or "N", for that mater).

Does it matter if I put these right next to each other (i.e. 0.05" away)? Or should I separate them with a non-resonant conductor? Or what?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1606. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 20:48:49 UTC
From: Dave Bushong <dbushong@adelphia.net>
Message-ID: <E4ydnZbpqJ9RiYHdRVn_iw@adelphia.com>
Source record: 100878
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Roger Gt wrote:
> X-No-Archive: yes
>
> "Mike Terry" wrote in message
>
>>"Roger Gt" has now been added to my "block
>
> sender" list <snip>
>
> Hey!
> That is great!
> I can't see his nonsense now and he won't respond
> to my posts.
>
> He clearly doesn't believe in the First Amendment!
>
> Why don't we all put him on the "block sender"
> list too!
>
>

Um, you mean that he doesn't believe that Congress shall make no law regarding free speech? Perhaps he believes that the Bill of Rights guarantees you the right to be a moron? Certainly if you have the right to be ignorant, he must have the right to ignore your rants.

1607. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 20:51:48 UTC
From: N8KDV <n8kdv@nospam.iserv.net>
Message-ID: <401C1564.74F2EFDB@nospam.iserv.net>
Source record: 100879
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Dave Bushong wrote:

> Mike Terry wrote:
> > Totally off topic so please do not post to all these newsgroups.
> >
>
> I am better at spellchecking
> > Than you.
> >
>
> are.

Hey, Retardo! He didn't misspell anything. He might have used the wrong word, but it was not misspelled.

Pay attention.

Steve
Holland, MI
Drake R7, R8 and R8B

1608. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 21:45:49 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040131164549.20644.00000777@mb-m21.aol.com>
Source record: 100880

>> The reality is that current is different, Eznec can't model it, ...
>
>Yuri, have you read Wes's article? Using wire segments, he modeled a loading
>coil in EZNEC. His segmented wire model of a coil shows a current taper
>through the coil. It's on his web page at: http://www.qsl.net/n7ws
>You can also download Wes's zipped EZNEC files.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Sorry!
OK, I will be more precise:
Eznec can't model current through zero physical size, but certain value inductance inserted in the antenna element. (As W8JI shows on his web page modeling his mobile antenna, "proving" that current is the same :-)
If the inductance is modeled as coiled wire with numerous segments and proper physical dimensions, then the current is modeled and reflects the reality. (Tough to do modeling typical loading coils.)
How's that?
Sorry I got pulled into the simplificity :-)
LB Cebik on his web site also has an example of coil modeled using segments and it shows current drop.

I hope it warms up, so I can get out, dig the car from the snow and do some experimenting.

First experiment will be with 80m Hustler coil in order to use "standard" (lousy) typical coil. I will paste LCD strip thermometers on the coil to measure temperature changes at various positions, ends, middle.

Experiment #1:
I will drive DC current through the coil in order to generate heat and observe the temperatures across the coil. I predict that thermometers will be tracking each other very closely or be identical (ideal case).

Experiment #2:
I will insert the same coil in the Hustler mobile antenna, tune to resonance and fire 100W to it. I will observe temperatures between the end and center and between two ends. I expect difference indicating difference in current at various points.

This will be the least disturbing measurement setup, no conductive nothing disturbing the coil or antenna. I am assuming LCD thermometer is RF transparent and I will verify that it does not detune the antenna/coil. Perhaps not very accurate, but sufficient to demonstrate the debated differences.
The next measurements will be with current probes and RF ammeters. This will

give more accurate values.

Any problems with that?

Yuri, K3BU.us

1609. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 21:48:19 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <DoVSb.150785$sv6.839078@attbi_s52>
Source record: 100881

Cecil

Did you find something wrong with my suggestion above?
I might also add that when considering coupling to a inductance the multiple placement of inductors does not help a bit since the coupling distance has no real reference points even tho one may decide the radiating member is the same diameter of the coil. This is why I suggested the new aproach.
I would be very interested in any errors that you may spot in any part of the above where a dimensionless
inductance is changed to one with actual dimensions.
Regards
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:401ac9dc$1_6@corp.newsgroups.com...
> Cecil Moore wrote:
> > I just looked at the paper again and I don't see any files to download.
> > Where are the files? I only have DOS-based EZNEC. Will it still work?
>
> Sorry Wes, the combination of a small screen, color-blindness, and
> cataracts causes me to miss a lot of things. I have successfully
> downloaded your zip files now.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1610. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 21:51:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c2409$1_7@corp.newsgroups.com>
Source record: 100883

Yuri Blanarovich wrote:
> Experiment #1:
> I will drive DC current through the coil in order to generate heat and observe
> the temperatures across the coil.
> Any problems with that?

Of course there's a problem with that, Yuri. You absolutely must use
a "physically small" coil so the gurus will be right. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1611. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 21:51:36 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvh82e$7q9e$1@news3.infoave.net>
Source record: 100882

While I normally can see your point, even if I disagree with your
conclusions.

In this case Cecil, your just plain wrong!

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message >
> Thanks for the tips, Wes, and it does work. The names of the .EZ files
> are on the .gif graphic that I prepared which illustrates the current
> magnitudes and phases for 3/2WL phased arrays.
>
> http://www.qsl.net/w5dxp/phasesbw.gif
> --
> 73, Cecil, W5DXP
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1612. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 21:59:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c261b$1_7@corp.newsgroups.com>
Source record: 100884

Art Unwin KB9MZ wrote:
> Did you find something wrong with my suggestion above?

Nope, nothing "wrong". I just avoid making assertions when I'm
not 95% certain that I am correct. Thus, most of the time, I am
unresponsive. I am 95% certain that the average humongous mobile
loading coil is not "physically small" and is more like a
certain percentage of a helical antenna which indeed does
obviously demonstrate a net current gradient.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1613. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 22:08:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c281b_7@corp.newsgroups.com>
Source record: 100885

Wes Stewart wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> |A quick scan of your article produces nothing new.
>
> Fine. Then this thread is closed.

I apologize, Wes. After closer inspection, I have to disagree with myself. Imax is the reference zero degree point for the "cosine rule". If that point occurs inside the loading coil, then the number of degrees occupied by the loading coil becomes ArcCos(Iin/Imax) + ArcCos(Iout/Imax) This helps to resolve the problem I was having with ArcCos(Iout/Iin). If, as you say, the current maximum point occurs inside the coil, then the forward current and reflected current are in-phase inside the coil and the coil occupies much more of the antenna than ArcCos(Iout/Imax) I do believe a "Thank you very much" is in order. For your antenna, the calculated degrees that the coil occupies is within 1.5 degrees of the estimated degrees.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1614. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 22:11:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c28ce$1_7@corp.newsgroups.com>
Source record: 100886

W4JLE wrote:
> While I normally can see your point, even if I disagree with your
> conclusions. In this case Cecil, your just plain wrong!

Would you mind telling me what I am wrong about? I presently
have no clue. I freely admit to being wrong about what the
stock market has done this year. Is that what you are talking
about?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1615. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 22:16:25 UTC
From: tdonaly@aol.com
Message-ID: <20040131171625.13670.00000663@mb-m27.aol.com>
Source record: 100887

Richard Clark wrote,
>
>On 31 Jan 2004 19:32:18 GMT, tdonaly@aol.com (Tdonaly) wrote:
>> I have to eschew
>Gesundheit
>
Thank you.

1616. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 22:25:13 UTC
From: tdonaly@aol.com
Message-ID: <20040131172513.13670.00000664@mb-m27.aol.com>
Source record: 100888

Cecil wrote,
>
>Tdonaly wrote:
>
>> Cecil wrote,
>>>Thanks Reg, this one is a keeper. If you made the helix long enough to
>>>cause a phase reversal in the current, would the world come to an end?
>>
>> It also doesn't mean anything.
>
>Tom, please build a two wavelength long helical antenna, measure the
>current at various places, and then come back and tell us, with a
>straight face, that the current phase never goes from positive to
>negative.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

It won't work, Cecil. I quit arguing when you quit understanding.
73,
Tom Donaly, KA6RUH

1617. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 22:29:19 UTC
From: Gary Peach <garypeach@btinternet.com>
Message-ID: <bvha7vqla1@hercules.btinternet.com>
Source record: 100889
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

"J. Harvey" <VE1BLL@rac.ca> wrote in message
news:8a615218.0401301457.319254c@posting.google.com...
> "Roger Halstead"
> > Rarely does the system suffer damage.
> >
> > ...one computer...
> > ...one PolyPhaser...
> > ...a repeater antenna...
> > ...a section of 5/8ths inch Heliax...
> > ...every bit of water proofing...
> > ...all the silver plating...
> > ...a two meter rig...
> > ...a barrel connector (N type)...
>
> Geesus H. !

I saw the result of a lightening strike at Barkway on Royston Heath.
The lightening came down our waveguide without any damage but inside teh
equipemy huit it vapourised teh big circuit breaker on teh wall and left a
hole wher it had been and chared melted wires some distance above and below
wher the box had been mounted.

> I guess so long as you think that you're happy,
> then you're happy. ;-)

cogito ergo sum

Only some 3,000 years earlier.

Gary7SLL

1618. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 22:55:05 UTC
From: geocal <geocal@att.net>
Message-ID: <dnWSb.150614$6y6.2946441@bgtnsc05-news.ops.worldnet.att.net>
Source record: 100890
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

I suspect that Bob McConnell is being facetious with his suggestion about building a QRP rig as part of a ham examination.

"Me" <Me@shadow.orgs> wrote in message news:Me-5DA20D.10291930012004@netnews.worldnet.att.net...
> In article <3urSb.2513$jH6.710@newsread1.news.atl.earthlink.net>,
> "Dr. Daffodil Swain" <wa4jm@earthlink.net> wrote:
>
> > HUH? Most FCC "engineers" can't pass this test! They have EE's which have
> > nothing to do with assembling QRP rigs. They don't teach soldering in
> > school. Get a life.
>
> There aren't many of those guys (FCC "engineers) left in the Commission,
> since Uncle Billy and his henchman ALGORE, reinvented the Commission,
> and layed off 75% of the Field Operations Folks. Better look for some
> other folks to admin your goofy exams and build your QRP Radio's.
>
> me

1619. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 23:01:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c34ad_8@corp.newsgroups.com>
Source record: 100891

Tdonaly wrote:
> It won't work, Cecil. I quit arguing when you quit understanding.

And you would rather leave me ignorant than contribute anything
to my understanding. I certainly understand that. I have an
engineering degree and my IQ, according to MENSA, is in the
upper 1/2 of one percent. That you cannot post anything that
I can understand seems to be your problem, not mine. But don't
feel alone. My Southern Baptist Preacher has the identical
problem. His religion interferes with my understanding. Your
math model religion interferes with my understanding in exactly
the same way. Hint: If your math model doesn't predict reality,
it ain't worth much. The original assertion was that the current
into a coil is identical to the current out of a coil. Never mind
that the current has to travel faster than the speed of light to
make that true. Every measurement has proven that there is a
current taper through the coil. Yet, you maintain the original
assertion. There's something seriously wrong with a mind that
maintains concepts that have been proven wrong by measurements.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1620. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 23:22:18 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvhdcb$7skf$1@news3.infoave.net>
Source record: 100892

Where do I begin...

To limit the universe, I disagree with the data referenced on your web page purporting to show how EZNEC got it wrong. Your just plain wrong.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:401c28ce$1_7@corp.newsgroups.com...
> W4JLE wrote:
> > While I normally can see your point, even if I disagree with your
> > conclusions. In this case Cecil, your just plain wrong!
>
> Would you mind telling me what I am wrong about? I presently
> have no clue. I freely admit to being wrong about what the
> stock market has done this year. Is that what you are talking
> about?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1621. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 23:30:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c3b64_7@corp.newsgroups.com>
Source record: 100893

W4JLE wrote:
> Where do I begin...
> To limit the universe, I disagree with the data referenced on your web page
> purporting to show how EZNEC got it wrong. Your just plain wrong.

I am not trying to be hardnosed about this. I am actually trying to be gentle about challenging someone's religion. If an inductive stub is properly modeled by EZNEC, why is an equivalent inductive coil not properly modeled? By properly modeled, I mean in agreement with reality.

EZNEC assumes that the current travels through the lumped inductive reactance at faster than the speed of light. Why is it surprising to find out that doesn't match reality? What am I missing, besides religion based on math models?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1622. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 23:37:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6keo109jkvare3vqn7a0siok51t46q0n46@4ax.com>
Source record: 100894

On Sat, 31 Jan 2004 17:01:58 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>And you would rather leave me ignorant than contribute anything
>to my understanding.

This reminds me of a time when I challenged our Chief Bosun's mate
with: "You can lead a horse to water, but you can't make him drink."

The Chief always had the last word with logic like yours:
"You hold his head under water and suck on his ass."

73's
Richard Clark, KB7QHC

1623. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 23:40:51 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvhee6$7t7v$1@news3.infoave.net>
Source record: 100895
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

If you can't build one from a few parts and get it on the air, you don't deserve to be called a ham.

Any CBer or welfare ham can turn on the latest, greatest, Kenwood.

If you have even the most rudimentary understanding of electronics, you should be able to build a transmitter.

How about something as simple as a crystal, a digital hex inverter and some wire and a couple of capacitors?

Whoops! that requires knowledge not gained from memorizing a set of questions.

Mores the pity! There have been no real hams since the FCC stopped giving the exams. If that pisses people off, please take note of the mistletoe pinned to my coat tail....

"geocal" <geocal@att.net> wrote in message news:dnWSb.150614$6y6.2946441@bgtnsc05-news.ops.worldnet.att.net...
> I suspect that Bob McConnell is being facetious with his suggestion about
> building a QRP rig as part of a ham examination.
>

1624. Re: @@@ Power Limit on J-Poles??????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-01-31 23:42:08 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bvhegk01fb5@enews1.newsguy.com>
Source record: 100896

"Dale Parfitt" <par@parelectronics.com> wrote in message
news:v1USb.7663$9a4.5233@nwrddc01.gnilink.net...
>
> "John Smith" <jocjo_john@yooha.com> wrote in message
> news:bvgm6p06bh@enews1.newsguy.com...
> >
> > "'Doc" <w5lz@cwis.net> wrote in message
news:401B6076.20E480F7@cwis.net...
> > >
> > >
> > > Stephen Cowell wrote:
> > >
> > > > Plumber's Delight J-pole doesn't require
> > > > an insulator at all... I'd imagine that it could
> > > > take all the power you could pour into it,
> > > > probably take way over legal limit to melt
> > > > a half-inch copper pipe J-pole.
> > > > __
> > > > Steve
> > > > KI5YG
> > > > .
> > >
> > > None at all? Are you real sure about that?
> > > Think about it...
> > > 'Doc
> >
> >
> > Yeah, no insulators at all... using plumber's delight.
> >
> > The bottom of the J is strapped together. The feed point is then moved
up
> > from the bottom along the 1/4 wave matching section until a match is
> > obtained.
> >
> > This approach can be pretty nice. I used three sections of steel mast
for
> a
> > 30 feet tall pipe, grounded at the bottom for lightning protection. I
then
> > added a 1/4 wave piece of conduit 3/4 wave down from the top strapped
with
> > sheet steel. Made a 1/2 wave balun from coax and found the lowest SWR
feed
> > point along the matching section. The entire arrangement was at earth

> > ground, so no floating elements. Some designs found in books and on the
> Web
> > feed them directly without the benefit of a balun. I've done it both
ways
> > and have had great success.
> >
> What keeps the mast below the J pole from radiating?
> Dale W4OP

They tell me it's the 1/4-wave matching section which stops the rf from moving on down the mast. A shorted 1/4 wave piece of transmission line looks like an open circuit or essentially a choke to the antenna. In fact, microstrip line construction uses 1/4 wave sections for RF chokes.

73,
John - KD5YI

1625. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 00:14:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c45a1_1@corp.newsgroups.com>
Source record: 100897

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>And you would rather leave me ignorant than contribute anything
>>to my understanding.
>
> This reminds me of a time when I challenged our Chief Bosun's mate
> with: "You can lead a horse to water, but you can't make him drink."

Richard, is one iota of scientific proof too much to ask or should
I accept it on faith like you? When I want hand-waving, I go to church.
I expect more than math-model-based religion out of this newsgroup.
Maybe I expect too much. You guys remind me of the people in one
of the Planet of the Apes movies who worshiped Tha Bomb.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1626. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 00:31:16 UTC
From: Jock <afton370@yahoo.co.uk>
Message-ID: <m2io10dna135suedh1s6r2m6ul5punf6no@4ax.com>
Source record: 100898
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

On Sat, 31 Jan 2004 22:29:19 +0000 (UTC), "Gary Peach" <garypeach@btinternet.com>
wrote:

>
>"J. Harvey" <VE1BLL@rac.ca> wrote in message
>news:8a615218.0401301457.319254c@posting.google.com...
>> "Roger Halstead"
>> > Rarely does the system suffer damage.
>> >
>> > ...one computer...
>> > ...one PolyPhaser...
>> > ...a repeater antenna...
>> > ...a section of 5/8ths inch Heliax...
>> > ...every bit of water proofing...
>> > ...all the silver plating...
>> > ...a two meter rig...
>> > ...a barrel connector (N type)...
>>
>> Geesus H. !
>
>I saw the result of a lightening strike at Barkway on Royston Heath.
>The lightening came down our waveguide without any damage but inside teh
>equipemy huit it vapourised teh big circuit breaker on teh wall and left a
>hole wher it had been and chared melted wires some distance above and below
>wher the box had been mounted.

Can't think of a better place for "lightening" to strike than Barkway.

I kate it you where in eht RAF hewn all this happened?

--
Jock.

1627. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 00:38:10 UTC
From: bart@wb6hqk.ampr.org
Message-ID: <df642edc.0401311638.57cbc9d8@posting.google.com>
Source record: 100899

Here's a post of mine from the thread titled 'colinear connundrum'
from a
few years ago. Perhaps it will shed some light on the subject :

>> Gray Frierson Haertig wrote:
>> "One of the classic implementations of the collinear uses parallel
>> resonant circuits as the phase inverting means between separate
>> elements---."
>>
>> I`ve discussed the if and how a parallel resonant circuit can
replace a
>> short-circuit 1/4-wave stub as a phase inverter, and never been
>> satisfied either.

If considered as two terminal devices, a 1/4 wl stub, parallel
resonant
LC circuit and an insulator are equivalent, at least for steady state
AC. Understanding the difference requires a slightly more elaborate
model for the stub or LC circuit. The model must account for charge
accumulation, or common mode current on the device. Classic network
theory can be used if a third, or 'common mode center tap' is added to
the device model.

Consider the parallel resonant LC circuit with the center of the
inductor (or capacitor) grounded. The impedance between the two 'hot'
terminals will be very high as in the two terminal case. The ground
connection introduces a new constraint. The voltage on a 'hot'
terminal
is now constrained to be equal in magnitude and of opposite polarity
from the other 'hot' terminal. This is not the case for the two
terminal
device model.

The three terminal device (center tap grounded) can be used as a
polarity reversing 1:1 transformer by connecting one 'hot' terminal to
a
ground referenced source and driving a load with the other terminal.
Of
course the same effect could be accomplished without the capacitor if
the center tapped inductor (autotransformer) had suitable properties.

Note that if the two 'hot' terminals are shorted the impedance (common
mode) to ground is zero.

Observe:
The differential mode impedance between 'hot' terminals is very high

(ideally infinite).
The common mode impedance to ground is zero.
The voltage on the 'hot' terminals respect to ground is of equal
magnitude and opposite polarity.

>> But, as Gray noted, a perfect parallel resonant circuit is an
insulator.
>> So is the perfect short-circuit 1/4-wave stub.

Now look at a 1/4 wl shorted stub far removed from ground. Viewed as
a
two terminal device it behaves similar to a parallel resonant LC
circuit. If the two open 'hot' wires are shorted, the stub looks like
a
1/4 wl long wire. The impedance with respect to ground is
approximately
36 ohms, which is very small compared to the nearly infinite
differential impedance. Think of it as a single 1/4 wl counterpoise;
adding a second colinear 'radial' results in an even lower (<< 36/2
ohms) 'virtual ground' impedance.

Thus the 1/4 wl stub behaves similar to the parallel resonant LC
circuit
with the grounded center tap. The common mode behavior of the
freespace
1/4 wl stub provides the low impedance 'virtual ground'. Of course
suppressing the common mode resonance by coiling the transmission line
or applying a common mode choke has the effect of inserting a high
impedance in series with the 'ground' connection.

In reality, the common mode impedance to ground of an isolated LC
circuit is not infinite. Both the inductor and capacitor have
capacitance to space which will provide some 'grounding' effect. At
MF
through VHF, the components would generally need to be physically very
large to have a usefully low common mode impedance to ground however.

>> The opposite terminals of the parallel resonant circuit and the
opposite
>> terminals of the short-circuit stub are out of phase, in either
case.
>> They are equivalent.
>>
>> Coupling between the elements exists in an ordinary dipole, even
though
>> the elements are end-to-end. There must be enough coupling to
complete
>> the transmission circuit, else the antenna wouldn`t work.

Turns out the mutual impedance between two isolated colinear dipole
elements is of the wrong polarity for parasitic operation as a
broadside

array. As you might expect, the mutual impedance between elements is dominated by end to end capacitance which is wrong for broadside gain. The Yagi configuration has a natural tendency to provide broadside gain,
while the colinear does not.

>> I think equivalence is the key. If one works, the other must work too.

As long as they are truly equivalent for the case being considered. Failing to consider common mode impedances is unfortunately a very common practice and will often lead to incorrect conclusions. The devil
is often in the details.

bart
wb6hqk

1628. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 02:18:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4boo101piitm288ibtugvifvabiboj51d6@4ax.com>
Source record: 100900

On Sat, 31 Jan 2004 18:14:18 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Richard, is one iota of scientific proof too much to ask or should
>I accept it on faith like you?

Depends: is your head under water, or are you drawing a vacuum?

1629. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 02:51:47 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <7RZSb.152323$5V2.804711@attbi_s53>
Source record: 100901

Bart
I am just not smart enough to follow all of your post.
But in between the lines I see a correlation to what I suggested that Cecil does to modify his collinear dipoles in the center portion a replacement circuit for a dimensionless inductance to a circuit that have dimensions in every sense and is its equal.
However he has rejected this aproach.
I would also add that if he imposed a parallel circuit that over lapped the dipole at each side
then he has achieved an increased radiation efficiency per unit length since the parallel circuit radiation is additive to the dipole radiation.. That would replace a large portion of the center of a extended zepp and also eliminate the stub portion.which are basically inefficient.
(Cecil has also rejected this notion in the past prefering his multi stub length arrangement as shown on his page.)
However, the idea of a combination loop dipole in this circle just apears to bring gasps of horror.as does the replacement of inefficient parts (low efficiency portions or same that has counter phase radiation.)
Since your post is laced with technical stuff that I don't understand but deals with the advantages of a loop over a stub, perhaps those that are more enlightened than I of which their are many, will discuss further your contribution so that education will replace the frustration that unfortunately now abounds

Regards
Art

"Bart Rowlett" <bart@wb6hqk.ampr.org> wrote in message
news:df642edc.0401311638.57cbc9d8@posting.google.com...
> Here's a post of mine from the thread titled 'colinear connundrum'
> from a
> few years ago. Perhaps it will shed some light on the subject :
>
> >> Gray Frierson Haertig wrote:
> >> "One of the classic implementations of the collinear uses parallel
> >> resonant circuits as the phase inverting means between separate
> >> elements---."
> >>
> >> I`ve discussed the if and how a parallel resonant circuit can
> replace a
> >> short-circuit 1/4-wave stub as a phase inverter, and never been
> >> satisfied either.
>
> If considered as two terminal devices, a 1/4 wl stub, parallel
> resonant

> LC circuit and an insulator are equivalent, at least for steady state
> AC. Understanding the difference requires a slightly more elaborate
> model for the stub or LC circuit. The model must account for charge
> accumulation, or common mode current on the device. Classic network
> theory can be used if a third, or 'common mode center tap' is added to
> the device model.
>
> Consider the parallel resonant LC circuit with the center of the
> inductor (or capacitor) grounded. The impedance between the two 'hot'
> terminals will be very high as in the two terminal case. The ground
> connection introduces a new constraint. The voltage on a 'hot'
> terminal
> is now constrained to be equal in magnitude and of opposite polarity
> from the other 'hot' terminal. This is not the case for the two
> terminal
> device model.
>
> The three terminal device (center tap grounded) can be used as a
> polarity reversing 1:1 transformer by connecting one 'hot' terminal to
> a
> ground referenced source and driving a load with the other terminal.
> Of
> course the same effect could be accomplished without the capacitor if
> the center tapped inductor (autotransformer) had suitable properties.
>
> Note that if the two 'hot' terminals are shorted the impedance (common
> mode) to ground is zero.
>
> Observe:
> The differential mode impedance between 'hot' terminals is very high
> (ideally infinite).
> The common mode impedance to ground is zero.
> The voltage on the 'hot' terminals respect to ground is of equal
> magnitude and opposite polarity.
>
> >> But, as Gray noted, a perfect parallel resonant circuit is an
> insulator.
> >> So is the perfect short-circuit 1/4-wave stub.
>
> Now look at a 1/4 wl shorted stub far removed from ground. Viewed as
> a
> two terminal device it behaves similar to a parallel resonant LC
> circuit. If the two open 'hot' wires are shorted, the stub looks like
> a
> 1/4 wl long wire. The impedance with respect to ground is
> approximately
> 36 ohms, which is very small compared to the nearly infinite
> differential impedance. Think of it as a single 1/4 wl counterpoise;
> adding a second colinear 'radial' results in an even lower (<< 36/2
> ohms) 'virtual ground' impedance.

>
> Thus the 1/4 wl stub behaves similar to the parallel resonant LC
> circuit
> with the grounded center tap. The common mode behavior of the
> freespace
> 1/4 wl stub provides the low impedance 'virtual ground'. Of course
> suppressing the common mode resonance by coiling the transmission line
> or applying a common mode choke has the effect of inserting a high
> impedance in series with the 'ground' connection.
>
> In reality, the common mode impedance to ground of an isolated LC
> circuit is not infinite. Both the inductor and capacitor have
> capacitance to space which will provide some 'grounding' effect. At
> MF
> through VHF, the components would generally need to be physically very
> large to have a usefully low common mode impedance to ground however.
>
>
> >> The opposite terminals of the parallel resonant circuit and the
> opposite
> >> terminals of the short-circuit stub are out of phase, in either
> case.
> >> They are equivalent.
> >>
> >> Coupling between the elements exists in an ordinary dipole, even
> though
> >> the elements are end-to-end. There must be enough coupling to
> complete
> >> the transmission circuit, else the antenna wouldn`t work.
>
>
> Turns out the mutual impedance between two isolated colinear dipole
> elements is of the wrong polarity for parasitic operation as a
> broadside
> array. As you might expect, the mutual impedance between elements is
> dominated by end to end capacitance which is wrong for broadside gain.
> The Yagi configuration has a natural tendency to provide broadside
> gain,
> while the colinear does not.
>
>
> >> I think equivalence is the key. If one works, the other must work
> too.
>
>
> As long as they are truly equivalent for the case being considered.
> Failing to consider common mode impedances is unfortunately a very
> common practice and will often lead to incorrect conclusions. The
> devil
> is often in the details.

>
> bart
> wb6hqk

1630. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 02:59:37 UTC
From: tdonaly@aol.com
Message-ID: <20040131215937.13087.00001371@mb-m02.aol.com>
Source record: 100902

Cecil wrote,
>
>Tdonaly wrote:
>> It won't work, Cecil. I quit arguing when you quit understanding.
>
>And you would rather leave me ignorant than contribute anything
>to my understanding. I certainly understand that. I have an
>engineering degree and my IQ, according to MENSA, is in the
>upper 1/2 of one percent. That you cannot post anything that
>I can understand seems to be your problem, not mine. But don't
>feel alone. My Southern Baptist Preacher has the identical
>problem. His religion interferes with my understanding. Your
>math model religion interferes with my understanding in exactly
>the same way. Hint: If your math model doesn't predict reality,
>it ain't worth much. The original assertion was that the current
>into a coil is identical to the current out of a coil. Never mind
>that the current has to travel faster than the speed of light to
>make that true. Every measurement has proven that there is a
>current taper through the coil. Yet, you maintain the original
>assertion. There's something seriously wrong with a mind that
>maintains concepts that have been proven wrong by measurements.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
Boy, you sure have accused me of a lot of things I never knew I
did. I don't maintain any of that stuff. I don't even care. Furthermore,
I don't have any better idea than you do what the current distribution in
any individual coil is. I suppose it depends on its environment and its
physical description, but beyond that it means nothing to me. What I
was railing at you about was something entirely different: I simply don't
believe your theories explain what you say they do, and unless you
can give better evidence than you have, I don't see why anyone else
should believe them either. Period. That's it. The end. Kaput. Finis.
73,
Tom Donaly, KA6RUH
(P.S. You euchred me into responding this time but it won't happen again.)

1631. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 03:08:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c6e6a_3@corp.newsgroups.com>
Source record: 100903

Art Unwin KB9MZ wrote:
> However he has rejected this aproach.

Art, just because I don't buy a Big Mac today doesn't mean
that I reject Big Macs. I was just in the mood for an egg
sandwich on cinnamon-raisin toast.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1632. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 03:21:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401c7195_3@corp.newsgroups.com>
Source record: 100904

Tdonaly wrote:
> I simply don't
> believe your theories explain what you say they do, and unless you
> can give better evidence than you have, I don't see why anyone else
> should believe them either.

I don't recall stating any theories except quotes from Kraus's book.
Would you be so kind as to re-state one of them for me so we can discuss
it intelligently? I don't recall you offering anything except personal
opinions and ad hominem attacks.

I have stated that there is a current taper in every real world mobile
loading coil and measurements by the very people who disagreed proved
that I was right.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1633. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 04:11:28 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bvhu9j0q54@enews2.newsguy.com>
Source record: 100905

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:bvgjrl$885$1@titan.btinternet.com...
>
> Take a close-wound wire helix of diameter D metres and having N = 500
turns
> per meter. Wire diameter approx 2mm.
>
> All formulae available from Terman, Kraus, ARRL, etc., etc.
>
> C = 55.5 / (Ln(2 * H / D) - 1) picofarads per meter.
>
> L = Square(N * Pi * D) / 10 microhenrys per meter.
>
> TransLine impedance, Zo = Sqrt(L / C) ohms.
>
> Propagation Velocity = 1 / Sqrt(L * C) metres per second.
>
> Take a length of H =1.5 metres of this helix and use it as a short
vertical
> antenna above a good ground.
>
> It will resonate as a 1/4-wave vertical at 3.5 MHz.
>
> Zo = 3243 ohms.
>
> Velocity factor = 0.0701
>
> Radiation Resistance = 0.176 ohms.
>
> etc., etc.,
>
> It's so simple you can't believe it. ;o)
> ----
> Reg.

Somehow this doesn't seem right.

For example, RG58 has a Zo of 52.5 ohms = sqrt(L/C). It also has C=28.5
pF/ft or 93.5 pF/meter. Solving for L gives 267.8 nH.

So, are you saying that a 1 meter length of RG58 will resonate at
fo=1/sqrt(L*C) or 31.8 MHz? If that's not what you're saying, where does
your Zo=3243 come from?

1634. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 04:48:27 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <vy%Sb.151221$Rc4.1202425@attbi_s54>
Source record: 100906

Cecil
I understand what you are saying but it is still a rejection
That seems to follow a general pattern of late where a stance is taken and all else is rejected sometimes without cause. In this particular case Bart also brought the same subject (at least I think he did) as something to ponder about and on this very same thread. where you supplied drawings of collinear dipoles.
I admit not being able to follow a lot of the to and fro auguements about contraflow movements e.t.c. which to me is the study of individual movements by tracking footprints after the Mall has closed which provides little benefit , but surely Bart's posting gives you something to ponder upon as your present stance has not won over any converts and which could possibly be presented in a different manner to make your case more digestable.
Anyway, I bow to your more intimate knowledge of the subject of inductance and that the inclusion suggested adds no value.

Best regards
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401c6e6a_3@corp.newsgroups.com...
> Art Unwin KB9MZ wrote:
> > However he has rejected this aproach.
>
> Art, just because I don't buy a Big Mac today doesn't mean
> that I reject Big Macs. I was just in the mood for an egg
> sandwich on cinnamon-raisin toast.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1635. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 04:57:20 UTC
From: "Matt Osborn"
Message-ID: <4o1p10pufdkgmfvev5gjbu8nrpo9k2fctd@4ax.com>
Source record: 100907
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

On Sat, 31 Jan 2004 17:33:38 -0800, Bill Turner <noway@nohow.com>
wrote:

>On Sat, 31 Jan 2004 11:42:31 -0600, Matt Osborn
><msosborn@spam_trap@attglobal.net> wrote:
>
>>Get your quuting straight, I did not write that.
>
>____
>
>Mr. Osborn, please go back and read my original post and you'll see I
>did not quote you. Here it is in it's entirety:

That post was directed at Shrader, not you.
>
>===
>
>On Fri, 30 Jan 2004 17:36:29 -0800, "Jim" <NN7K@Reno.Rmci.Net> wrote:
>
>>In this REPUBLIC (our founding fathers wisely refrained from creating a
>>DEMOCRACY-
>
>____
>
>Nonsense. Go check your dictionary. We are a democratic republic.

1636. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 04:58:27 UTC
From: "Matt Osborn"
Message-ID: <gq1p10ddmk7hto245hsgg2fpaci22qe88s@4ax.com>
Source record: 100908
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

On Sat, 31 Jan 2004 11:39:06 -0800, "Jerry Bransford"
<jerrypb@mecox.net> wrote:

>Matt, are you the same Jeeping Matt Osborn I know? :)
>
I'm the 'other' jeeping Matt Osborn. We've never met Jerry.

1637. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 05:02:56 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <4M%Sb.4983$jH6.4258@newsread1.news.atl.earthlink.net>
Source record: 100909

Richard:

[snip]
> This reminds me of a time when I challenged our Chief Bosun's mate
> with: "You can lead a horse to water, but you can't make him drink."
>
> The Chief always had the last word with logic like yours:
> "You hold his head under water and suck on his ass."
>
> 73's
> Richard Clark, KB7QHC
[snip]

Heh, heh... memorable. I love it... but....

Are you sure he didn't also use the "f" word?

It's my recollection that Chief Bosun's Mates do focus on the ass a lot...
but not without a few well chosen "f" word interjections.

Too many years ago to remember, I had the con on a tin can along
side a carrier at sea readying to pass a sick matloes over a bosun's chair.
I was holding the con "real steady" in heavy seas +/- 1/2 degree or so,
grinning to myself from ear to ear at how well I was doing, the Chief
Bosun's
Mate ruined my pride and reverie when he hollered down the blow tube,
"Sailor
if you don't keep this fuxxxxg tin can on fuxxxxg course I'll come down this
fuxxxxg ladder and stuff that fuxxxxg wheel up your 'ass' spoke by fuxxxxg
spoke."

Now that's Chief Bosun's Mate talk! :-)

--
Peter K1PO
Indialantic By-the-Sea, FL

1638. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 05:05:27 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <rO%Sb.4984$jH6.4165@newsread1.news.atl.earthlink.net>
Source record: 100910

Reg: I think youv'e lost em now! --Peter K1PO

"John Smith" <jocjo_john@yooha.com> wrote in message
news:bvhu9j0q54@enews2.newsguy.com...
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:bvgjrl$885$1@titan.btinternet.com...
> >
> > Take a close-wound wire helix of diameter D metres and having N = 500
> turns
> > per meter. Wire diameter approx 2mm.
> >
> > All formulae available from Terman, Kraus, ARRL, etc., etc.
> >
> > C = 55.5 / (Ln(2 * H / D) - 1) picofarads per meter.
> >
> > L = Square(N * Pi * D) / 10 microhenrys per meter.
> >
> > TransLine impedance, Zo = Sqrt(L / C) ohms.
> >
> > Propagation Velocity = 1 / Sqrt(L * C) metres per second.
> >
> > Take a length of H =1.5 metres of this helix and use it as a short
> vertical
> > antenna above a good ground.
> >
> > It will resonate as a 1/4-wave vertical at 3.5 MHz.
> >
> > Zo = 3243 ohms.
> >
> > Velocity factor = 0.0701
> >
> > Radiation Resistance = 0.176 ohms.
> >
> > etc., etc.,
> >
> > It's so simple you can't believe it. ;o)
> > ----
> > Reg.
>
>
>
> Somehow this doesn't seem right.
>

> For example, RG58 has a Zo of 52.5 ohms = sqrt(L/C). It also has C=28.5
> pF/ft or 93.5 pF/meter. Solving for L gives 267.8 nH.
>
> So, are you saying that a 1 meter length of RG58 will resonate at
> fo=1/sqrt(L*C) or 31.8 MHz? If that's not what you're saying, where does
> your Zo=3243 come from?
>
>
>

1639. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 05:34:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sa3p101ahm1kmjoff9l6r55unqth0vbhc9@4ax.com>
Source record: 100911

On Sun, 01 Feb 2004 05:02:56 GMT, "Peter O. Brackett"
<no_such_address@ix.netcom.com> wrote:
>It's my recollection that Chief Bosun's Mates do focus on the ass a lot...
>but not without a few well chosen "f" word interjections.

Hi Peter,

It would put this thread to shame to offer that when I was in Nixon's Canoe Club, we could use that word as an adjective; adverb; verb (transitive or intransitive); noun; relative pronoun; in a prepositional phrase; as an indirect/direct object; as a (get this) connective; subjective complement; often as a nominative absolute phrase; as a gerund; and quite often to split an infinitive. That hardly allowed for the full scope of usage and there was never any doubt about meaning, application, intent, or subject that so attends "current." in these rather drab and limp wrist tea parties called debate.

73's
Richard Clark, KB7QHC, ET1

1640. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 05:42:31 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <7u3p105014dht001lrl43d8o9jq0ujrurt@4ax.com>
Source record: 100912

On Sat, 31 Jan 2004 19:20:18 GMT, Gene Fuller <W4SZzzzzz@att.net>
wrote:

|Yuri,
|
|You are absolutely correct; this thread has drifted beyond recognition.

Actually, as threads go this one isn't all the bad. As the originator
of the thread I believe I know what the topic is.

Yuri can claim that this is away from the "original problem", however,
the original problem, as he calls it, wasn't the topic of the paper to
which my original posting pointed.

|
|Please note that I have never questioned your experiment or your data. I am
|merely commenting on the highly unscientific handwaving approach taken RRAA's
|most prolific "scientist".
|
|73,
|Gene
|W4SZ
|
|Yuri Blanarovich wrote:
|>>This has become unusually entertaining.
|>>....... snipydyduda
|>>However, I do not believe I have ever encountered a "scientist" who rejected
|>>both experimental and mathematical approaches at the same time.
|>>
|>>73,
|>>Gene
|>>W4SZ
|>>
|>
|>
|>
|>
|> Hey,
|> this is getting off on the tangent, away from the original "problem".
|> I and Barry W9UCW found, measured differences in the typical loading coil
|> currents in order of 40 - 60%. See article and pictures on my web www.K3BU.us.
|> W8JI and flat earth society proclaimed it can't be so. They argued and
|> "calculated" that current at both ends of a loading coil in quarter wave loaded
|> radiator has to be the same. W5DXP explained why the current is different,
|> other sources and past publications affirm that.

|>
|> As I mentioned, time permitting, I will put together article explaining what is
|> happening, describe experiments that can be replicated by non-believers and
|> elaborate on the significance of the effect on the design of shortened (loaded)
|> antennas.
|>
|> Nobody has argued the seven points I raised earlier, and those who measured,
|> including W8JI found that current IS different (but still says it is NOT).
|>
|> The reality is that current is different, Eznec can't model it, you can
|> speculate and theorize all you want, it will not revert the Earth to be flat.
|> Big men will admit they were wrong, thank the enlighteners and RF life goes on.
|>
|> Yuri, K3BU.us

1641. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 05:44:39 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <pg4p10ddib8025oifdrd4uakejgtqtc3at@4ax.com>
Source record: 100913

On Sat, 31 Jan 2004 19:52:23 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

|On 31 Jan 2004 17:24:18 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
|wrote:
|
|>The reality is that current is different, Eznec can't model it
|
|Hi Yuri,
|
|I would suggest that you visit a very informative site that says quite
|the opposite with:
|>Roy Lewallen, W7EL, author of EZNEC and Richard Clark, KB7QHC
|>recommend workarounds to replace the coil with cylinder of similar
|>size or breaking the coil to number of physical segments with appropriate inductances.
|
|This may be found at:
|http://www.k3bu.us/loadingcoils.htm

That's it, point him to an "expert." [g]

1642. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 06:27:48 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <ma6p10thvqnffrbibn0qr8hosj5tnkuan7@4ax.com>
Source record: 100914

On Sat, 31 Jan 2004 08:04:47 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

|Wes Stewart wrote:
|
|> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
|> |Don't know how. But assuming I can learn how to do that in HTML, I'll
|> |try to post those files tomorrow.
|>
|> As you can see from my home page I'm not, nor do I want to be, a web
|> page designer. But even I know that you can just ftp your files to
|> your web page. You don't need to create a link on a page, just tell
|> us the file name. I do it all the time.
|
|Thanks for the tips, Wes, and it does work. The names of the .EZ files
|are on the .gif graphic that I prepared which illustrates the current
|magnitudes and phases for 3/2WL phased arrays.
|
|http://www.qsl.net/w5dxp/phasesbw.gif

I downloaded a couple of them, but I have a question. I opened them
using MultiNEC, which reads all of the popular modeling program file
formats. The loads did not import, but when I opened the same files
in EZNEC 3 I saw them as R+jX loads with only an 'X' value.

I learned from Dan, AC6LA, the author of MultiNEC, that some early
EZNEC versions save all loads as Laplace and he doesn't read those
into MultiNEC. Opening the files in EZNEC 3 and then just resaving
them makes the import into MultiNEC work okay, but this makes me
suspect that using your earlier files in my later version might be a
problem. The documentaion says otherwise though, but to be sure, what
are the actual load parameters.

I don't want to comment further until I know exactly what you are
using.

1643. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 08:56:59 UTC
From: Gary Peach <garypeach@btinternet.com>
Message-ID: <bvif0q$42d$1@sparta.btinternet.com>
Source record: 100915
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

"Jock" <afton370@yahoo.co.uk> wrote in message
news:m2io10dna135suedh1s6r2m6ul5punf6no@4ax.com...
> On Sat, 31 Jan 2004 22:29:19 +0000 (UTC), "Gary Peach"
<garypeach@btinternet.com>
> wrote:
>
> >
> >"J. Harvey" <VE1BLL@rac.ca> wrote in message
> >news:8a615218.0401301457.319254c@posting.google.com...
> >> "Roger Halstead"
> >> > Rarely does the system suffer damage.
> >> >
> >> > ...one computer...
> >> > ...one PolyPhaser...
> >> > ...a repeater antenna...
> >> > ...a section of 5/8ths inch Heliax...
> >> > ...every bit of water proofing...
> >> > ...all the silver plating...
> >> > ...a two meter rig...
> >> > ...a barrel connector (N type)...
> >>
> >> Geesus H. !
> >
> >I saw the result of a lightening strike at Barkway on Royston Heath.
> >The lightening came down our waveguide without any damage but inside teh
> >equipemy huit it vapourised teh big circuit breaker on teh wall and left
a
> >hole wher it had been and chared melted wires some distance above and
below
> >wher the box had been mounted.
>
> Can't think of a better place for "lightening" to strike than Barkway.
>
> I kate it you where in eht RAF hewn all this happened?

No, Engineer (Microwave) with PYE Telecommunications
We had teh first non GPO television microwave link between Birmingham and
London.
We were trying to break teh GPO monopoly on supplying and also regulating
radio communications.
It must have worked because the GPO /BT is no longer the only supplieer.

CML building Birmingham, Meriden, Cold Ashby, Barkway, Hill Crest (Highgate,
just down teh road from the BBC station at Swains Lane)

We were contracted to ATV.
Teh Link was used to show the adverts going out in Birmingham to the sponsors in London.

Thanks for taking the piss out of my creeping disability, It keeps a sens of proportion for me,
console yourself that it won't last much longer and I won't be able to type at all.

Gary7SLL

1644. Re: Lightning Strokes, Masts & Volts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 11:04:47 UTC
From: don bryant <dba@yebo.co.za>
Message-ID: <bvjar2$ap2$1@ctb-nnrp2.saix.net>
Source record: 100771

..And, I believe Iraqi has oil reserves almost equal to Russia? And of course they were rightly limited to oil exports by the UN. I understood the US got 4% from Iraq.

But back to the main question...How far should a fence be place around a tower. Most of the answers given referred to the "step voltage" case. There is another important factor, Side Flashes. A person or animal should not be to near a tower since the flash heading to ground can take a parallel path if one is standing close by. I don;t know the distance, but I would stay 10/15 feet away, just in case. It is side flashes that get people standing under trees. Plus, there is the danger under trees from fragments of the tree, as well as part of it falling on you. In Johannesburg, we get terrific lighting and all thatch roof houses are required to have a vertical rod about 1/4 wave on 40 meters).I know all this because my uncle was a musical genius, a truly fabulous conductor. He was hit by lighting.
Joke...sorry)Don ZS6BTP
Jim Kelley <jwkelley@uci.edu> wrote in message
news:3FCF82AE.DA42D736@uci.edu...
> Roger Halstead wrote:
> > "I think" a bit of research will show that Iraq has very little oil
> > compared to rest of that area. Seems like I remember reading they only
> > contribute 2 or 3% of the oil out of the middle east.
>
> That's how much they contribute to us here in the US. They contribute
> about 80% of France's oil imports.
>
> 73, Jim AC6XG

1645. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 11:10:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvimr8$4m4$1@hercules.btinternet.com>
Source record: 100916

I'm afraid you are hopelessly mixed up.

What on Earth has it got to do with RG58?

As I have already said, using the well known formulae -

Calculate C pF/m
Calculate L uH/m
Insert L and C in Zo = Sqrt(L/C)

and Bingo! Zo = 3243 ohms.

1646. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 15:33:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401d1d23$1_4@corp.newsgroups.com>
Source record: 100917

Bart Rowlett wrote:

Thanks, Bart. [Lots of good stuff trimmed.]

> In reality, the common mode impedance to ground of an isolated LC
> circuit is not infinite. Both the inductor and capacitor have
> capacitance to space which will provide some 'grounding' effect. At
> MF through VHF, the components would generally need to be physically very
> large to have a usefully low common mode impedance to ground however.

Seems that answers the phase-reversing coil question. It has to be
physically very large. As Kraus suggested, a 1/2WL element coiled up
would necessarily be physically very large. It would actually be the
physical size of a 1/2WL helical antenna. A pancake coil might work
well in that situation. My 75m Texas Bugcatcher coil is also physically
very large.
--
73, Cecil http://www.qsl.net/w5dxp
"One thing I have learned in a long life: that all our science, measured against
reality, is primitive and childlike ..." Albert Einstein

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1647. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 16:10:44 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bvj8e202tc0@enews2.newsguy.com>
Source record: 100769

> I'm afraid you are hopelessly mixed up.
>
> What on Earth has it got to do with RG58?
>
> As I have already said, using the well known formulae -
>
> Calculate C pF/m
> Calculate L uH/m
> Insert L and C in Zo = Sqrt(L/C)
>
> and Bingo! Zo = 3243 ohms.

What it has to do with RG58 is as follows:

> C = 55.5 / (Ln(2 * H / D) - 1) picofarads per meter.

RG58 has 93.5 pF/meter. (from ARRL Antenna Book)

> L = Square(N * Pi * D) / 10 microhenrys per meter.

RG58 has 258 nH/meter. (from Zo=sqrt(L/C) and Zo from ARRL Antenna Book)

> TransLine impedance, Zo = Sqrt(L / C) ohms.

RG58 is sqrt(L/C) = 52.5 Ohms.

> Propagation Velocity = 1 / Sqrt(L * C) metres per second.

Vp = 1/sqrt(L*C) = 203.7 m/s

> Take a length of H =1.5 metres of this helix and use it as a short
vertical
> antenna above a good ground.
>
> It will resonate as a 1/4-wave vertical at 3.5 MHz.

Using a 1 meter length of RG58, it will resonate at f = 1/(2*pi*sqrt(L*C)) =
32.4 MHz.

> Zo = 3243 ohms.

Zo = 52.5 Ohms.

> Velocity factor = 0.0701

Velocity factor = 203.6/300 = .68

In other words, Reg, I don't see why I can't apply the same equations to
determine the resonant frequency of a piece of RG58. Are you saying you can

use these equations and I can't? After all, you are implying you can analyze your distributed coil/transmission line using non-distributed, lumped components.

If you can explain my error, please do so rather than insulting me by saying I am hopelessly mixed up.

1648. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 16:27:42 UTC
From: Dave Bushong <dbushong@adelphia.net>
Message-ID: <uoWdncSuBcuHtIDd4p2dnA@adelphia.com>
Source record: 100918
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

N8KDV wrote:
>
> Dave Bushong wrote:
>
>
>>Mike Terry wrote:
>>
>>>Totally off topic so please do not post to all these newsgroups.
>>>
>>
>>I am better at spellchecking
>>
>>>Than you.
>>>
>>
>>are.
>
>
> Hey, Retardo! He didn't misspell anything. He might have used the wrong
> word, but it was not misspelled.
>
> Pay attention.
>
> Steve
> Holland, MI
> Drake R7, R8 and R8B
>
>

Steve,

Good one. You got me.

Dave
KZ1O

--
This file is PureMail protected. To reply to the sender,
you MUST include this in the subject line:

RNWENK29CD 04/01/2004

(without that string in the subject, your
message will be deleted, unread)

1649. Noise - MFJ-1265?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 16:31:01 UTC
From: Ronald Walters <rwalters8@cfl.rr.com>
Message-ID: <9R9Tb.126611$873.2707593@twister.tampabay.rr.com>
Source record: 100772

Background: Within the past several months my QTH which was virtually a very low noise environment now is one of the nosiest QTH's I have ever lived in. Birdies every 17 kc across 160-80 and 40. Some nights its worse with birdies every 5-7-kc. These are not low signal strengths either but up to a S-9+ on 80 meters.
have check with all of my neighbors since initially it would start right at 5 PM and last all night until 7:30 in the morning. My first thought was an auto light fixture. Well it's gotten bad and doesn't seem to be on a regular time schedule. Feelings are TV or touch lamp. Possible PC but don't know. Power company is Florida Progress which is a Duke Energy company. Have heard that Duke is playing with their new Internet access over power lines but I do not think it has hit the central Florida market.

Question - I am thinking about trying the MFJ-1265 Noise phasing unit. Have read an old review on ARRL and other comments on some bulletin boards but am wondering if anyone out there has experience with the unit and what their honest impression is. In addition to that unit I plan on a complete rework of the antenna and grounding system her just to make sure I do not have a poor joint in the system that is providing some rectification and being self induced. Any comments will be appreciated.

Again thanks to the list for accepting this inquiry, I respect the expertise of the this group.

Ron - W4LDE

1650. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 16:49:39 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <D6aTb.204286$na.335534@attbi_s04>
Source record: 100770

I think that there is more to Bart's posting than that!

First the idea given by certain people to model
by breaking up the inductance into small parts
is nothing but crap and suedo scientific hoodwinking.

Since inductance in a coil per unit length is not uniform
(Reg alluded to this also)
any breaking up into parts involves an increase in inductance to maintain
resonance. Thus the aproach does nothing more than break up a large part as
a means for scientific hood winking for the unsuspecting to assist
digestion.
It does nothing to bring a dimension less lumped load
to an item of the real world which requires a fully dimensioned item.or it's
equivalent.

If the inductance were to be resonant then it can certainly be replaced by a
parallel loop circuit of size of the original real world inductance and
where current in versus current out can be ascertained together with any
phase when
ground is placed in the required position.. The same aproach also covers the
actual placement of the coil
on any vertical radiator since resonance must be maintained

To consider this discussion in any other way is totally pointless and thru
time obscures the original intent of the post.and where certain obduration
rather than education prevails

Best regards
Art Unwin KB9MZ....XG

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401d1d23$1_4@corp.newsgroups.com...
> Bart Rowlett wrote:
>
> Thanks, Bart. [Lots of good stuff trimmed.]
>
> > In reality, the common mode impedance to ground of an isolated LC
> > circuit is not infinite. Both the inductor and capacitor have
> > capacitance to space which will provide some 'grounding' effect. At
> > MF through VHF, the components would generally need to be physically
very
> > large to have a usefully low common mode impedance to ground however.
>
> Seems that answers the phase-reversing coil question. It has to be
> physically very large. As Kraus suggested, a 1/2WL element coiled up

> would necessarily be physically very large. It would actually be the
> physical size of a 1/2WL helical antenna. A pancake coil might work
> well in that situation. My 75m Texas Bugcatcher coil is also physically
> very large.
> --
> 73, Cecil http://www.qsl.net/w5dxp
> "One thing I have learned in a long life: that all our science, measured
against
> reality, is primitive and childlike ..." Albert Einstein
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1651. Flipping turnstile

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 18:00:30 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <bvjeqa$sc6ht$1@ID-150848.news.uni-berlin.de>
Source record: 100773

A turnstile is a horizontally polarized antenna. Big downer is that from a polar radiation POV, from the sides, it's got a minus figure. Like -2db or something.

Okay, flipp the turnstile so you have one dipole vertical. Not a turnstle anymore, and the element configuration will respond favourably to both vertical and horizontal radiation.

But:

1) Do you have to wire up the "flipped turnstle" in a different way in order, at the same time, (without any switching) to take advantage of:

a) mixed polarized waves?
b) vertical or horizontal waves?

2) If you put up a "flipped turstile" and you wire it up to handle mixed, vertical or horizontal waves, what is the polar radiation patter in the horizontal plane (ie from the sides) ? Still a minus?

Amhoping that a "flipped turnstile" properly wired would perform with mixed, vertical or horizontal waves coming from the sides. And hoping better than a turnstile.

TIA.

1652. Re: Noise - MFJ-1265?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 18:04:29 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <401beef0_5@newsfeed.slurp.net>
Source record: 100775

Ron, before you go nuts with fixes & mods, do a little noise-sniffing. Take a 2M H/T, and a portable AM radio out around the neighborhood, and see if you can find any potential sources for the noise.

Bear in mind too, that the noise doesn't have to be locally produced. It is theoretically possible (and has happened more than once) for the noise source to actually be several miles away, but part of the same grid. One of our local hams had a problem several years ago, and the source was a touch lamp, 1.5 miles away...

And don't be afraid to ask Duke to help you in searching out the noise source - if it's theirs, they are obliged to find & fix it.

73,
Mike KI6PR
El Rancho R.F., CA

"Ronald Walters" wrote
> Background: Within the past several months my QTH which was virtually a
> very low noise environment now is one of the nosiest QTH's I have ever
lived
> in. Birdies every 17 kc across 160-80 and 40. Some nights its worse with
> birdies every 5-7-kc. These are not low signal strengths either but up to
a
> S-9+ on 80 meters.
> have check with all of my neighbors since initially it would start right
at
> 5 PM and last all night until 7:30 in the morning. My first thought was
an
> auto light fixture. Well it's gotten bad and doesn't seem to be on a
> regular time schedule. Feelings are TV or touch lamp. Possible PC but
> don't know. Power company is Florida Progress which is a Duke Energy
> company. Have heard that Duke is playing with their new Internet access
> over power lines but I do not think it has hit the central Florida market.
>
> Question - I am thinking about trying the MFJ-1265 Noise phasing unit.
Have
> read an old review on ARRL and other comments on some bulletin boards but
am
> wondering if anyone out there has experience with the unit and what their
> honest impression is. In addition to that unit I plan on a complete
rework
> of the antenna and grounding system her just to make sure I do not have a
> poor joint in the system that is providing some rectification and being
self

> induced. Any comments will be appreciated.
>
> Again thanks to the list for accepting this inquiry, I respect the
expertise
> of the this group.
>
> Ron - W4LDE
>
>

1653. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 18:16:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvjfq5lfp1@sparta.btinternet.com>
Source record: 100774

"John Smith" wrote -
> Using a 1 meter length of RG58, it will resonate at f = 1/(2*pi*sqrt(L*C))
=
> 32.4 MHz.
>
============================
Obviously not. You're miles away from the right ball park.

And you are using the wrong formula for the resonant frequency of a
transnmission line anyway.

1654. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 18:32:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401d46ef_2@corp.newsgroups.com>
Source record: 100777

Reg Edwards wrote:
> And you are using the wrong formula for the resonant frequency of a
> transnmission line anyway.

I once had a 2m Heathkit linear amplifier for my Wilson transceiver.
I chose the wrong length of coax between the two and when I ceased
to transmit, the amplifier would oscillate. My neighbor, also a ham,
told me I was transmitting a wandering signal that keyed all the 2m
repeaters in the area. That was back before PL was popular.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1655. Re: Noise - MFJ-1265?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 18:32:25 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvjgns$8vd9$1@news3.infoave.net>
Source record: 100776

Before spending money on a phasing unit, run a few of the following checks.

1. Remove antenna - check for birdies. If they are still there start looking at the receiver.

2. If no birdies, assuming rig can run on 12 Volts, remove power supply and substitute a battery. Reconnect antenna. Check for birdies.

3. If birdies, throw house master breaker and see if they go away. If they do as I suspect they will turn breaker back on and turn off breakers one at a time untill you find out it is a clock radio or some other electronic device.

4. If they still persist, start driving around the neighborhood looking for increased signal strength.

Had a similar problem one time, turned out to be an old radio in the attic. My wife had been up there sorting boxes and plugged in an old radio to listen to. She had turned it down, but not off and it was creating havoc.

You did not mention the rig your using , that would be helpful.

"Ronald Walters" <rwalters8@cfl.rr.com> wrote in message
news:9R9Tb.126611$873.2707593@twister.tampabay.rr.com...
> Background: Within the past several months my QTH which was virtually a
> very low noise environment now is one of the nosiest QTH's I have ever
lived
> in. Birdies every 17 kc across 160-80 and 40. Some nights its worse with
> birdies every 5-7-kc. These are not low signal strengths either but up to
a
> S-9+ on 80 meters.
> have check with all of my neighbors since initially it would start right
at
> 5 PM and last all night until 7:30 in the morning. My first thought was
an
> auto light fixture. Well it's gotten bad and doesn't seem to be on a
> regular time schedule. Feelings are TV or touch lamp. Possible PC but
> don't know. Power company is Florida Progress which is a Duke Energy
> company. Have heard that Duke is playing with their new Internet access
> over power lines but I do not think it has hit the central Florida market.
>
> Question - I am thinking about trying the MFJ-1265 Noise phasing unit.
Have
> read an old review on ARRL and other comments on some bulletin boards but
am
> wondering if anyone out there has experience with the unit and what their

> honest impression is. In addition to that unit I plan on a complete
rework
> of the antenna and grounding system her just to make sure I do not have a
> poor joint in the system that is providing some rectification and being
self
> induced. Any comments will be appreciated.
>
> Again thanks to the list for accepting this inquiry, I respect the
expertise
> of the this group.
>
> Ron - W4LDE
>
>

1656. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 18:42:23 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvjhan$8vgo$1@news3.infoave.net>
Source record: 100778

What are you trying to say? I can't make heads or tails of your point. I am sure it is simply ignorance on my part, but I fail to see how hardening of the heart is the alternative to education... Is it just me?

" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message news:D6aTb.204286$na.335534@attbi_s04...
> To consider this discussion in any other way is totally pointless and thru
> time obscures the original intent of the post.and where certain obduration
> rather than education prevails
>
> Best regards
> Art Unwin KB9MZ....XG

1657. Re: @@@ Power Limit on J-Poles??????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 18:44:19 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402011044.2b8a2d72@posting.google.com>
Source record: 100779

"John Smith" <jocjo_john@yooha.com> wrote in message
news:<bvhegk01fb5@enews1.newsguy.com>...
> > >
> > What keeps the mast below the J pole from radiating?
> > Dale W4OP
>
>
> They tell me it's the 1/4-wave matching section which stops the rf from
> moving on down the mast. A shorted 1/4 wave piece of transmission line looks
> like an open circuit or essentially a choke to the antenna. In fact,
> microstrip line construction uses 1/4 wave sections for RF chokes.
>
> 73,
> John - KD5YI

Yep. It was disscussed on this forum how with certain types of
waveguides, that every so often, there would be a 1/4 wave "insulator"
that would suspend the center conductor from the outer ground.

A short rotated 1/4 wavelength "towards the generator" on a Smith
Chart will tell you that electrically, it's virtually like an open.

But even when you know this, it's still kinda neat to think how it
really doesn't matter how long or how grounded the "handle" of the
J-pole is.

Very cool stuff.

Getting back to my question, i would say that i disagree that the
only limiting factor is the breakdown voltage of the insulators. The
limiting factor would be the current carrying capabilities of the
conductors themselves, and when you include the skin effect, a larger
diameter copper pipe can handle more current naturally.

I think a 3/4" J-pole should be able to handle 500 watts at least.

Dr. Slick

1658. Re: A newbie with a couple of questions.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 18:49:59 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <rTbTb.47195$5K1.2744222@twister.southeast.rr.com>
Source record: 100780

Depends on the mechanical rigidity ogf the materials. I have built them from brazing rods that definitly needed the insulating spacers to keep them stable. If the OP built something like the copper cactus then he should not need them.

" Stephen Cowell" <scowell@sbcglobal.net> wrote in message news:rcDRb.11771$sD2.11129@newssvr23.news.prodigy.com...
>
> "Jimmy" <Gfender@carolina.rr.com> wrote in message
> news:OuBRb.13755$F86.1531636@twister.southeast.rr.com...
> > In the plan I have for one it calls for a piece of fiberglass rod, others
> > bakelite. to keep the two sections of the J at the right sepration.
>
> Are we talking regular J, or Super J here? The
> antenna you're describing is a Super, a colinear
> array with the middle phasing section. In a normal
> J-pole, there is no insulator needed.
>
> Here's a confusing point from the original post...
>
> <>
> I recently built a two meter j-pole.In the plan,I saw no mention of pvc
> use.Yet,I had to place a piece of pvc between the two uprights to get
> the swr to fall.Is there something I missed?
> </>
>
> Is the pipe used in an insulator fashion, or
> is it used to spread the Q-section? I believe
> it's the latter... if so, the newbie can just bend
> or re-solder the pole so the spacing's correct.
>
> And if the newbie is describing a 300ohm
> twinlead J-pole, then I give up.
>
> >Somtimes
> > mechanical rigidity is enough, for one like the latter search for "copper
> > cactus".
>
> A thing of beauty... I've got a nice copper
> J for six that I'm considering converting to
> the saguaro configuration.
> --

> Steve
> KI5YG
> .
>
>
>

1659. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 19:21:14 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <o2kq101jrtm2q238c9v8oihvk1700th4be@4ax.com>
Source record: 100781
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,uk.radio.amateur

On 30 Jan 2004 14:57:22 -0800, VE1BLL@rac.ca (J. Harvey) wrote:

>"Roger Halstead"
>> Rarely does the system suffer damage.
>>
>> ...one computer...
>> ...one PolyPhaser...
>> ...a repeater antenna...
>> ...a section of 5/8ths inch Heliax...
>> ...every bit of water proofing...
>> ...all the silver plating...
>> ...a two meter rig...
>> ...a barrel connector (N type)...
>
>Geesus H. !

Considering three strikes a year on average and this is not all the
same strike, and all but the antenna and Heliax have been
inexpensive...Yup.

I've had line noise trash a computer on a sunshiny day. Lost
everything except the CPU of all things.

Computers run 24 X 7 (bout 32,000 hours run time a year) and are hard
wired together with Cat 5 cable.
No problems since going to UPSs with line conditioning.

Last Fall, this one had over 57 transfers to the UPS over 3 months
including 3 brown outs, one black out (quite a few hours), and the
rest was line noise.

>
>I guess so long as you think that you're happy,
>then you're happy. ;-)

Every thing is relative. <:-))

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
>Carry on then.

1660. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 19:39:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401d56a5$1_6@corp.newsgroups.com>
Source record: 100782

Art Unwin KB9MZ wrote:
> I think that there is more to Bart's posting than that!

Of course there is, Art. I just chose to reply to one topic. I respect Bart not only because he is brilliant and knowledgeable, but because he doesn't engage in ad hominem attacks like some other people I know.

That being said, I don't think a ground is necessary to cause a phase reversal. A 2WL centerfed dipole has phase reversals even when positioned in free space. I don't see any reason to suspect that a 2WL centerfed helical dipole doesn't exhibit the same phase reversals. If you replace the helical on each side of the phase reversals by straight wires, I don't think the phase reversal will magically disappear in the part of the helical antenna coil that remains. I could be wrong, but common sense seems to work pretty well in the area of antennas (if not for QED. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1661. Re: Did I do this TV antenna right for 665mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 19:45:43 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <3MednZpSJIT0yoDdRVn-hw@comcast.com>
Source record: 100783

If you want to use 300 Ohm twinlead, you should make a folded dipole out of 300 Ohm twinlead, not a straight dipole out of single conductor wire. You are using 300 Ohm transmission line with a 75 Ohm antenna and losing some signal.

When using twinlead, you need to keep it away from all metal (at least a couple of inches), and twist it about one twist per foot.Do not tape it to, or run it inside a metal pipe.

Tam/WB2TT
"Caezaar" <caezaar@yahoo.com> wrote in message
news:1d3101b2.0402010855.635c9571@posting.google.com...
> Trying to pull in TV channel 46 for an afternoon superbowl viewing.
> To make a temporary antenna, Here's what I did:
>
> 1. figured that Channel 46 is roughly 665mhz
> 2. Divided 496 by 665 and came up with 8 3/8 inch length
> 3. Screwed TWO 8 3/8" pieces of electric fence wire to a 2x1x1/2 wood
> block
> 3.5. (Made the wires face away from each other as straight as
> possible)
> 3.6. (The distance between the screws is approx 1/4 inch)
> 4. Ran 50 feet of 300 ohm coax attached with one pole wire to each
> lead
> 5. stuck a cork in the end of 12 foot electric conduit pipe
> 6. fixed the assemply to the cork by running a screw through the
> middle of the 300 ohm insulation about one inch below the wood block.
> 7. Attached the pole to the chimeney with a bungee
> 8. Spun the antenna for best reception (seems to point at repeater)
>
> Noted that reception is marginally better than using a Radio Shack UHF
> antenna inside the house. Reception seems to be sensitive to
> placement of the 300 ohm coax.
>
> Anything I could have done better? Tips hints?
>
> Thanks all.

1662. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 20:23:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <irnq1010fdabhp63j8gnhnlginca0qm9qi@4ax.com>
Source record: 100784

On Sun, 1 Feb 2004 10:10:44 -0600, "John Smith" <jocjo_john@yooha.com>
wrote:
>If you can explain my error, please do so rather than insulting me by saying
>I am hopelessly mixed up.

Hi John,

You will undoubtedly find the answer when our resident troll argues
this from the other side of the argument in a future thread. Time and
conflict finds him everywhere eventually. ;-)

73's
Richard Clark, KB7QHC

1663. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 20:31:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d7oq109p0du24lk0l9lqfq7fnor07dgm93@4ax.com>
Source record: 100785

On Sun, 01 Feb 2004 16:49:39 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:
>First the idea given by certain people to model
>by breaking up the inductance into small parts
>is nothing but crap and suedo scientific hoodwinking.
>
Art,

As usual you are long on condemnation, and short on facts.

73's
Richard Clark, KB7QHC

1664. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 20:36:18 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <6rdTb.160738$nt4.732814@attbi_s51>
Source record: 100786

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401d56a5$1_6@corp.newsgroups.com...
> Art Unwin KB9MZ wrote:
> > I think that there is more to Bart's posting than that!
>
> Of course there is, Art. I just chose to reply to one topic. I respect
> Bart not only because he is brilliant and knowledgeable, but because he
> doesn't engage in ad hominem attacks like some other people I know.

Now that Cecil I heartedly agree with, kudo's to Bart
since the trend is to attack the man to cover ones inadequacies with respect
to the subject at hand.

>
> That being said, I don't think a ground is necessary to cause a phase
> reversal. A 2WL centerfed dipole has phase reversals even when positioned
> in free space. I don't see any reason to suspect that a 2WL centerfed
> helical dipole doesn't exhibit the same phase reversals.
**
Cecil you are trying to jump the Grand Canyon it two jumps by looking at
phase angle alone for picture purposes rather than have the total picture
for overall analysis.
**
If you replace
> the helical on each side of the phase reversals by straight wires, I don't
> think the phase reversal will magically disappear in the part of the
helical
> antenna coil that remains. I could be wrong, but common sense seems to
work
> pretty well in the area of antennas (if not for QED. :-)
**
Well common sense can also be intuitive sense which can be in error by 180
degrees. to common people that does not have the backing of MENSA
The point I am trying to make is to stay on track with the subject that was
raised in the first place as many have now forgotten what the initial point
is thus the reactions that are not pertinent.
The statement presented by your own hand stated that eznec cannot model it
thus leading to conjecture. That you will object to since you are confident
by virtue of some aquired knoweledge but has no value unless that analysis
is shared by all, and that is clearly not so which has led to wierd
suggestions and semantics to overcome that obstacle. My point is that
understanding and agreement will only come when clarity is applied as to why
Eznec cannot solve the problem. and replace it.
It is evident that Eznec cannot deal the way we want with lumped loads, but
it is also incapable of working backwards in a complex circuitry mode to

formulate
an equivalent circuit. This is because the program is reactive rather than
proactive with respect to radiation.
To be proactive one must be able to transform radiation resistance to many
other forms of resistance i.e. skin resistance, coupling and the like
. Fortunately there are other programs out there that can work backwards
from lumped loads complex circuit style that can do this ensuring that
radiation efficiency is emulated in its entirety.
Thus I and I suspect Bart also and not forgetting Reggies comment regarding
what every body is ignoring, that for clarity sake to ensure that all are
paddling in the same boat is to basically put the inductance as an
equivalent circuit in a ' black box" where entry and exit parameters can be
compared in a logical manner instead of falling back on 'common sensen
So I am calling for collective analysis instead of raising ones voice when
talking to someone who does not know your language.
Nothing personal and I am not pointing fingers,but I fear that most are in
different boats and paddling in multiple direction that if attitudes doesn't
change this thread is all for nought.

Best regards
Art

> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1665. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 20:46:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r8pq10p306u456q17qjtlb5aj37pc4m97d@4ax.com>
Source record: 100787

On Sun, 01 Feb 2004 20:36:18 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:

>Eznec cannot deal the way we want with lumped loads

Art,

This is baloney.

73's
Richard Clark, KB7QHC

1666. Daiwa MR750 Rotator Info Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 21:03:09 UTC
From: Jennings <leejen@paradise.net.nz>
Message-ID: <ERdTb.20064$ws.2689424@news02.tsnz.net>
Source record: 100788

Hi all
I have a Daiwa MR750 four motor rotator (three installed) turning my TH6DXX. The problem is one of intermittent or no indication on the controller. It is probably the rotator indicator potentiometer. As I don't have any circuit information, I need to the ohmic value of the pot. The problem may also be the plastic drive gear that drives it. The gear appears to have worn down teeth. (Frankly I have the same problem but I am 66!!!)

Looking up Google tells me that others have had similar problems with the MR 750 and I would like to know of any solutions that anybody has come up with. Perhaps someone out there will have a spare gear or pot in their junkbox?

The rotator is mounted at the base of the tower. I have had it apart two or three times over the past few years and have cleaned the pot etc. It seems to work for a few weeks and then goes off track and the indicator swings wildly about.

Thanks for any help you can offer

73 de Lee ZL2AL - ZL7AA, ZL8RI, ZL9CI, VE3OE, VE3LJ

The worst day DXing is infinitely better than the best day working

1667. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 21:09:36 UTC
From: Nelson <tstevens@cogeco.ca>
Message-ID: <fWdTb.1163$SY3.210554@read2.cgocable.net>
Source record: 100791

ComputerDigest 1988, Line Carrier Modems
The LCM 100

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:irnq1010fdabhp63j8gnhnlginca0qm9qi@4ax.com...
> On Sun, 1 Feb 2004 10:10:44 -0600, "John Smith" <jocjo_john@yooha.com>
> wrote:
> >If you can explain my error, please do so rather than insulting me by
saying
> >I am hopelessly mixed up.
>
> Hi John,
>
> You will undoubtedly find the answer when our resident troll argues
> this from the other side of the argument in a future thread. Time and
> conflict finds him everywhere eventually. ;-)
>
> 73's
> Richard Clark, KB7QHC

1668. Re: Flipping turnstile

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 21:13:57 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <p_dTb.116$sy4.12@newssvr23.news.prodigy.com>
Source record: 100789

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:bvjeqa$sc6ht$1@ID-150848.news.uni-berlin.de...
> A turnstile is a horizontally polarized antenna. Big downer is that from
a
> polar radiation POV, from the sides, it's got a minus figure. Like -2db
or
> something.

I'd call it 'circular' polarization... but OK...

> Okay, flipp the turnstile so you have one dipole vertical. Not a
turnstle
> anymore, and the element configuration will respond favourably to both
> vertical and horizontal radiation.

What happened to the ground plane
when you did that? Is one element
touching it now? The antenna will
have a bi-directional pattern unless
you include the plane to work against
(not necessarily bad...).

> But:
>
> 1) Do you have to wire up the "flipped turnstle" in a different way in
> order, at the same time, (without any switching) to take advantage of:
>
> a) mixed polarized waves?
> b) vertical or horizontal waves?

The only time circular is a disadvantage is
when the incoming wave is circular, and
opposite to what you're receiving.

> 2) If you put up a "flipped turstile" and you wire it up to handle
mixed,
> vertical or horizontal waves, what is the polar radiation patter in the
> horizontal plane (ie from the sides) ? Still a minus?

It'd be a null... about like a dipole
of that polarity (I'm guessing...).

>
> Amhoping that a "flipped turnstile" properly wired would perform with
> mixed, vertical or horizontal waves coming from the sides. And hoping
better
> than a turnstile.

An interesting array might be a XYZ affair,
three crossed dipoles. Switchable to
choose the best axis to null.

--
Steve
KI5YG
.

1669. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 21:17:20 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <A1eTb.204265$xy6.1051480@attbi_s02>
Source record: 100790

Richard you are so quick to show an example of what Cecil was talking
about.but then it is to be expected.
Talk but no walk
If you had studied engineering instead of getting a degree
in shakespear and shakesperian literature you would have realised that
exposing yourself on center stage not only makes you apear effeminate but
devoid of factual information to cover your own inadequacy,.which clearly
shows now that Roy is not around to hang onto his coattails.
Eznec cannot in anyway create a circuit that can emulate
a lumped load. If one took a look at the underpinnings
of complex circuitry you will immediatly understand that all variables are
interconnected with each other for legitamate equivalency. The Eznec program
only has a following because of its longevity because of its inability to be
proactive in dealing with variables.. For true equivalency everything must
be treated as variable for legitamcy until the number crunching is
finished.and most modern programs have that ability which does not in anyway
demean old antenna programs which are now eclipsed by the new.
Frankly Richard you should have stayed in the navy
where your particular atributes aparently attracted
many that were starved of companionship than being
uniterested in physical facts.

Art KB9MZ XG

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:r8pq10p306u456q17qjtlb5aj37pc4m97d@4ax.com...
> On Sun, 01 Feb 2004 20:36:18 GMT, " Art Unwin KB9MZ"
> <aunwin@insightbb.com> wrote:
>
> >Eznec cannot deal the way we want with lumped loads
>
> Art,
>
> This is baloney.
>
> 73's
> Richard Clark, KB7QHC

1670. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 21:28:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gorq10hc8pjs88iu4fgibgf65t47bf05ko@4ax.com>
Source record: 100792

On Sun, 01 Feb 2004 21:17:20 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:
>Eznec cannot in anyway create a circuit that can emulate
>a lumped load.

Art,

This is baloney.

73's
Richard Clark, KB7QHC

1671. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 21:40:03 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bvjrnq0qst@enews2.newsguy.com>
Source record: 100793

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:bvjfq5$1lfp$1@sparta.btinternet.com...
> "John Smith" wrote -
> > Using a 1 meter length of RG58, it will resonate at f =
1/(2*pi*sqrt(L*C))
> =
> > 32.4 MHz.
> >
> ============================
> Obviously not. You're miles away from the right ball park.
>
> And you are using the wrong formula for the resonant frequency of a
> transnmission line anyway.

What is the formula you used to arrive at:

>It will resonate as a 1/4-wave vertical at 3.5 MHz.

1672. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 21:48:43 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bvjs7u0rkh@enews2.newsguy.com>
Source record: 100794

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:irnq1010fdabhp63j8gnhnlginca0qm9qi@4ax.com...
> On Sun, 1 Feb 2004 10:10:44 -0600, "John Smith" <jocjo_john@yooha.com>
> wrote:
> >If you can explain my error, please do so rather than insulting me by
saying
> >I am hopelessly mixed up.
>
> Hi John,
>
> You will undoubtedly find the answer when our resident troll argues
> this from the other side of the argument in a future thread. Time and
> conflict finds him everywhere eventually. ;-)
>
> 73's
> Richard Clark, KB7QHC

Thanks, Richard. I didn't know the meaning of the word Troll until now. I asked for an explanation but, well, you saw his answer:

"Obviously not. You're miles away from the right ball park.

And you are using the wrong formula for the resonant frequency of a transnmission line anyway."

It seems to me that he could have at least let us in on his formula. If he doesn't want to share knowledge with the group, and if he is not a troll, why does he bother to post?

Oh, well. I guess the best thing is to ignore him.

John, KD5YI

1673. Re: Flipping turnstile

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 22:13:12 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <bvjtk3$tf4o3$1@ID-150848.news.uni-berlin.de>
Source record: 100795

Richard wrote:
> Am hoping that a "flipped turnstile" properly wired would perform with
> mixed, vertical or horizontal waves coming from the sides. And hoping
> better than a turnstile.
>
> TIA.

When I think about a flipped turnstile (though not necessarly wired up as per a regular horizontal turnstile: Maybe, me thinks there is a better way to wire up, given I'm seeking an antenna that is optimal for reception of V, H Mixed waves) I think:

Vertical dipole part is going to act as a vertical dipole so flipped turnstile is omnidirectional for V waves. So, you are going to get the same signal from the flipped turnstile as you would a regular V dipole?

Horizontal dipole is going to act like a horizontal dipole so there will be figure of eight pattern for H waves. So, you are going to get the same signal from the flipped turnstile as you would a regular H dipole?

Downside is the figure of eight pattern with H polarization. Need a turnstile with vertical dipole elements to avoid this.

What happens when the TX is radiating a mixed polarized signal. If wired correctly, V dipole adds it's signal voltage to H dipole?

But you might as well have two seperate dipoles- right!! :c)

Selling point of regular turnstile is the omidirectional pattern. You loose that with a "flipped turnstle"

Might as well have a turnstile and a vertical dipole if you wanted omnidirectional reception capability catering for V or H polarized waves.

Conclusion: No point in flipping over a turnstile! So it seems. Much better to erect V and H polarized dipoles, or V dipole and turnstile.

1674. What kind of antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 22:24:27 UTC
From: ps <ps@invalid.com>
Message-ID: <101qv4uiok7h67a@corp.supernews.com>
Source record: 100796

I have a photo of an antenna at the Long Marine Labs in Santa Cruz, California. The view in the photo is to the n-n-west. I'm curious about what looks like some sort of array of rectangular elements. Is this an antenna, what type or frequency range? The length of the sides is about 1 meter. I can't post a binary on the newsgroup so the image is temporarily at this url. http://www.cyberplasm.com/temp/ant_500.jpg

1675. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 22:29:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eeuq109cof49i2ha1e1qsrkpierv4r35l3@4ax.com>
Source record: 100797

On Sun, 1 Feb 2004 15:48:43 -0600, "John Smith" <jocjo_john@yooha.com>
wrote:

>
>Thanks, Richard. I didn't know the meaning of the word Troll until now.

Well, actually you have been conned by the bait and switch.

>I asked for an explanation but, well, you saw his answer:
>
>"Obviously not. You're miles away from the right ball park.
>
>And you are using the wrong formula for the resonant frequency of a
>transnmission line anyway."

That is the troll. Reggie likes to rail against software - except his
own. He likes to rail against citing authorities - until he gushes on
about Lord Plushbottom. He absolute fulminates against passivity in
learning - and then offers software without divulging the concrete
fundamentals behind them. Then there are the side topics where he
regales how he is the only Brit to have lost WWII to the Americans.

>It seems to me that he could have at least let us in on his formula. If he
>doesn't want to share knowledge with the group, and if he is not a troll,
>why does he bother to post?

About the only consistent advice you could expect are his reports of
the metaphysical clarity of view in looking through the bottom of a
wine bottle.

>Oh, well. I guess the best thing is to ignore him.

And miss all this comedy? Residency comes from time and experience!
When Reggie showed up in this group, he was preceeded by one of his
countrymen from the UK amateur newsgroup begging our indulgence for
his advanced years and eccentric habits. Somehow there was the
breathlessness of "he's yours now" in that plea. ;-)

Anyway, taken over the average of his arguing both sides of an issue,
you will come away with something and unlike others who mince about,
Reggie can actually write code and offer results from first
principles.

73's
Richard Clark, KB7QHC

1676. Re: Flipping turnstile

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 22:58:12 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <bvk0a0$p4a6u$1@ID-175933.news.uni-berlin.de>
Source record: 100798

RE: Paste below

Not totally sure of your physical concept, but the free space net patterns of single, quadrature-fed h-pol and v-pol, 1/2 wave dipoles having coincident radiation centers will be essentially c-pol on the planes normal to the two dipoles, and essentially v-pol off the ends of the horizontal dipole.

This is a common element configuration to generate c-pol in FM/TV broadcast panel antenna arrays.

Two h-pol dipoles in a turnstile arrangement would be more omnidirectional, in the azimuth plane.

RF

Visit http://rfry.org for FM broadcast RF system papers.

"Richard" <nearlynews_email@ntlworld.com> wrote in message news:bvjeqa$sc6ht$1@ID-150848.news.uni-berlin.de...
> A turnstile is a horizontally polarized antenna. Big downer is that from a
> polar radiation POV, from the sides, it's got a minus figure. Like -2db or
> something.
>
> Okay, flipp the turnstile so you have one dipole vertical. Not a turnstle
> anymore, and the element configuration will respond favourably to both
> vertical and horizontal radiation.
> But:
>
> 1) Do you have to wire up the "flipped turnstle" in a different way in
> order, at the same time, (without any switching) to take advantage of:
>
> a) mixed polarized waves?
> b) vertical or horizontal waves?
>
> 2) If you put up a "flipped turstile" and you wire it up to handle mixed,
> vertical or horizontal waves, what is the polar radiation patter in the
> horizontal plane (ie from the sides) ? Still a minus? <clip>

1677. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:13:26 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <qKfTb.158031$sv6.873964@attbi_s52>
Source record: 100799

Nothing on that post

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:p94d10lf2n4vfjhpn33aia1avne4kh5ade@4ax.com...
> On Tue, 27 Jan 2004 05:43:07 -0700, Wes Stewart <n7ws@_arrl.net>
> wrote:
> >On Tue, 27 Jan 2004 00:27:15 -0600, 'Doc <w5lz@cwis.net> wrote:
> >|
> >|
> >|Wes,
> >| Do you really think that it makes ~that~ much
> >|difference?
> >| 'Doc
> >
> >Yes... or no... or maybe, depending on what "it" is and how much
> >difference "it" does or does not make.
> >Regards,
> >Wes
>
> Hi Wes,
>
> The difference in your examination satisfyingly amounts to:
> 1.) the absence of ego towering over the problem;
> 1a.) the corresponding lack of sneer review that
> reduces the argument to "you won't change my mind";
> 2.) the presence of clear unequivocal study of the problem;
> 3.) less than 1dB.
>
> 73's
> Richard Clark, KB7QHC

1678. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:14:22 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <iLfTb.156255$Rc4.1236972@attbi_s54>
Source record: 100800

Nothing on that post

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:qp3e109765g04g8h0jh2c0egfnevq5d8n4@4ax.com...
> On 28 Jan 2004 00:45:14 GMT, tdonaly@aol.com (Tdonaly) wrote:
>
> >Steve wrote,
> >>
> >>It's more of a math term than an antenna term. I believe this refers to
the
> >>'method of moments' used to calculate the far field. Take the currents
in
> >>all the little sections of the antenna and sum the contributions of each
for
> >>the total field...like what happens in real life.
> >>Steve N.
> >>
> >
> >Thanks Steve. The way the fellow used it it sounded like a single
> >quantity the square of which was proportional to the radiation
> >resistance. People who write articles for journals sometimes
> >get a bit fanciful in their terminology.
> >73,
> >Tom Donaly, KA6RUH
> >
>
> Hi Fellows,
>
> I dunno. When I read it, it looked like a reference to graphical
> analysis or the projection of a point that represents a mean within a
> surface area (which, again, harkens back to the "sinusoidal" current
> distribution curve).
>
> 73's
> Richard Clark, KB7QHC

1679. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:15:41 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <xMfTb.158046$sv6.874075@attbi_s52>
Source record: 100801

Gee no facts or anything on that one either

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:i31o101qc82b85rf7jaju48cnb983oun76@4ax.com...
> On 31 Jan 2004 19:32:18 GMT, tdonaly@aol.com (Tdonaly) wrote:
> > I have to eschew
> Gesundheit

1680. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:16:52 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <ENfTb.158053$sv6.873598@attbi_s52>
Source record: 100802

Nothing again just talk no walk

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:r8pq10p306u456q17qjtlb5aj37pc4m97d@4ax.com...
> On Sun, 01 Feb 2004 20:36:18 GMT, " Art Unwin KB9MZ"
> <aunwin@insightbb.com> wrote:
>
> >Eznec cannot deal the way we want with lumped loads
>
> Art,
>
> This is baloney.
>
> 73's
> Richard Clark, KB7QHC

1681. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:17:56 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <EOfTb.158062$sv6.873880@attbi_s52>
Source record: 100803

Hmm again no input or facts

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:gorq10hc8pjs88iu4fgibgf65t47bf05ko@4ax.com...
> On Sun, 01 Feb 2004 21:17:20 GMT, " Art Unwin KB9MZ"
> <aunwin@insightbb.com> wrote:
> >Eznec cannot in anyway create a circuit that can emulate
> >a lumped load.
>
> Art,
>
> This is baloney.
>
> 73's
> Richard Clark, KB7QHC

1682. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:19:38 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <eQfTb.156298$Rc4.1238017@attbi_s54>
Source record: 100804

Hmm no facts except calling the kettle black again
Surely there is a post from him with something!

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:d7oq109p0du24lk0l9lqfq7fnor07dgm93@4ax.com...
> On Sun, 01 Feb 2004 16:49:39 GMT, " Art Unwin KB9MZ"
> <aunwin@insightbb.com> wrote:
> >First the idea given by certain people to model
> >by breaking up the inductance into small parts
> >is nothing but crap and suedo scientific hoodwinking.
> >
> Art,
>
> As usual you are long on condemnation, and short on facts.
>
> 73's
> Richard Clark, KB7QHC

1683. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:21:54 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <mSfTb.161591$nt4.734545@attbi_s51>
Source record: 100805

Jimimny this guy is elusive suggests he has something to offer but he has
hidden it well.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:hiqm10tg4j4muhn6tlieljabrs15ifm0bm@4ax.com...
> On 31 Jan 2004 02:18:33 GMT, tdonaly@aol.com (Tdonaly) wrote:
>
> >This is vintage Moore.
>
> You were expecting chopped liver? Tom, you and Wes and.... know
> better.
>
> 73's
> Richard Clark, KB7QHC

1684. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:23:48 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <8UfTb.158100$5V2.827992@attbi_s53>
Source record: 100806

Obscure posting. Is he hitting at the poster again ?

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:2j1o1090gas9frhohsc05ednn75ijh4ev9@4ax.com...
> On 31 Jan 2004 17:24:18 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
> wrote:
>
> >The reality is that current is different, Eznec can't model it
>
> Hi Yuri,
>
> I would suggest that you visit a very informative site that says quite
> the opposite with:
> >Roy Lewallen, W7EL, author of EZNEC and Richard Clark, KB7QHC
> >recommend workarounds to replace the coil with cylinder of similar
> >size or breaking the coil to number of physical segments with appropriate
inductances.
>
> This may be found at:
> http://www.k3bu.us/loadingcoils.htm
>
> 73's
> Richard Clark, KB7QHC

1685. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:24:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ni2r109b5laorgri63hl5te0adivg7jqii@4ax.com>
Source record: 100807

On Sun, 01 Feb 2004 23:17:56 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:

>Hmm again no input or facts

Hi Art,

Exactly.

73's
Richard Clark, KB7QHC

1686. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:25:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tj2r10104gdv7avbrbhbg5ookcnep83ier@4ax.com>
Source record: 100808

On Sun, 01 Feb 2004 23:16:52 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:
>Nothing again just talk no walk

Art,

You think you could add anything instead of agreeing?

73's
Richard Clark, KB7QHC

1687. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:26:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hl2r1051mqifkcn6kjsp2i37ctpnm3ulhj@4ax.com>
Source record: 100809

On Sun, 01 Feb 2004 23:19:38 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:

>Hmm no facts except calling the kettle black again
>Surely there is a post from him with something!

Art,

I've looked, but all you have to offer are your problems of sexuality.

73's
Richard Clark, KB7QHC

1688. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:26:26 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <CWfTb.156339$Rc4.1238144@attbi_s54>
Source record: 100810

Hmmm
He is knocking Roy now but again he is contributing nothing
what gives with this guy, does he think he is at an opers ?

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:k12j109up9lhfulpq8a8i34m9ocvv5fpml@4ax.com...
> On Thu, 29 Jan 2004 15:26:44 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
> >Einstein once
> >said that all our models are flawed.
> >--
> >73, Cecil, W5DXP
>
> Maybe because his browser couldn't open pages, and pdf wouldn't work
> for him.
>
> Or was that Galileo?
>
> Hi Wes,
>
> I am glad you aren't spinning this out like Roy used to. I got tired
> of those "I'm outta here" responses linked down the page like
> dominoes.
>
> 73's
> Richard Clark, KB7QHC

1689. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:27:02 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <aXfTb.158107$sv6.873195@attbi_s52>
Source record: 100811

Same stuff

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:2gll109ha6enlo7koeofq9i9uqduui8qdk@4ax.com...
> On Fri, 30 Jan 2004 13:54:46 -0800, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
> > It's a peculiar kind of bird.
>
> Like the asian chicken-flu.

1690. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:28:20 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <oYfTb.158128$5V2.827910@attbi_s53>
Source record: 100812

I give up this person has no clothes

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:4nqm10d7id6djr04ksnrfn66dpeo564g6n@4ax.com...
> On Fri, 30 Jan 2004 19:22:03 -0700, Wes Stewart <*n7ws*@arrl.net>
> wrote:
>
> >But even I know that you can just ftp your files to
> >your web page. You don't need to create a link on a page, just tell
> >us the file name. I do it all the time.
>
> This is the up and coming thing of pre-schoolers now. 45% are making
> their own web sites. They also know EM theory better.
>
> 73's
> Richard Clark, KB7QHC

1691. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:28:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qn2r10deq0n44j4bn37agivkndcod47lq9@4ax.com>
Source record: 100813

On Sun, 01 Feb 2004 23:14:22 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:

>Nothing on that post

>> I dunno. When I read it, it looked like a reference to graphical
>> analysis or the projection of a point that represents a mean within a
>> surface area (which, again, harkens back to the "sinusoidal" current
>> distribution curve).

Art,

Write again when you do have something then.

73's
Richard Clark, KB7QHC

1692. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:30:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ur2r10pqqpjq8c1amcove58qiavspccl8k@4ax.com>
Source record: 100814

On Sun, 01 Feb 2004 23:15:41 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:
>Gee no facts or anything on that one either

Gesundheit

1693. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-01 23:32:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cv2r1097i2vtoo0c2km6annr0c8v4aaeke@4ax.com>
Source record: 100815

On Sun, 01 Feb 2004 23:13:26 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:

>Nothing on that post
>> Hi Wes,
>>
>> The difference in your examination satisfyingly amounts to:
>> 1.) the absence of ego towering over the problem;
>> 1a.) the corresponding lack of sneer review that
>> reduces the argument to "you won't change my mind";
>> 2.) the presence of clear unequivocal study of the problem;
>> 3.) less than 1dB.
>>
>> 73's
>> Richard Clark, KB7QHC
>
Still less than 1 dB

1694. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 00:20:49 UTC
From: tdonaly@aol.com
Message-ID: <20040201192049.13622.00000882@mb-m27.aol.com>
Source record: 100816

John Smith wrote,
>
>
>Thanks, Richard. I didn't know the meaning of the word Troll until now. I
>asked for an explanation but, well, you saw his answer:
>
>"Obviously not. You're miles away from the right ball park.
>
>And you are using the wrong formula for the resonant frequency of a
>transnmission line anyway."
>
>It seems to me that he could have at least let us in on his formula. If he
>doesn't want to share knowledge with the group, and if he is not a troll,
>why does he bother to post?
>
>Oh, well. I guess the best thing is to ignore him.
>
>John, KD5YI
>

Actually, some of Reg's stuff is close enough to be pretty good. He doesn't
like to give us any symbolic derivations, though. Maybe he's ashamed of them.
Anyway, like everyone else on this newsgroup, you can take him or leave him.
73,
Tom Donaly, KA6RUH
(PS You've just learned a valuable lesson about grouchy old Brits.)

1695. Re: What kind of antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 00:41:35 UTC
From: Jack Smith <Jack.Smith@cox.net>
Message-ID: <627r109bldtv363fovgctbnchdnj8aaq5j@4ax.com>
Source record: 100817

On Sun, 01 Feb 2004 15:24:27 -0700, ps <ps@invalid.com> wrote:

>I have a photo of an antenna at the Long Marine Labs in Santa Cruz,
>California. The view in the photo is to the n-n-west. I'm curious about
>what looks like some sort of array of rectangular elements. Is this an
>antenna, what type or frequency range? The length of the sides is about
>1 meter. I can't post a binary on the newsgroup so the image is
>temporarily at this url. http://www.cyberplasm.com/temp/ant_500.jpg

Looks like an array of broadband receiving loops. I would bet it's for direction finding. The signals from the individual loop antennas are electronically combined to produce a steerable antenna pattern.

You can buy similar antenna arrays from several commerical suppliers.

The loops look home made, from common plumbing parts, a mix of PVC and copper pipe.

Jack K8ZOA

1696. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 00:56:38 UTC
From: John Smith <jocjo_john@yooha.com>
Message-ID: <bvk78b02iqc@enews1.newsguy.com>
Source record: 100818

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20040201192049.13622.00000882@mb-m27.aol.com...
> John Smith wrote,
> >
> >
> >Thanks, Richard. I didn't know the meaning of the word Troll until now. I
> >asked for an explanation but, well, you saw his answer:
> >
> >"Obviously not. You're miles away from the right ball park.
> >
> >And you are using the wrong formula for the resonant frequency of a
> >transnmission line anyway."
> >
> >It seems to me that he could have at least let us in on his formula. If
he
> >doesn't want to share knowledge with the group, and if he is not a troll,
> >why does he bother to post?
> >
> >Oh, well. I guess the best thing is to ignore him.
> >
> >John, KD5YI
> >
>
> Actually, some of Reg's stuff is close enough to be pretty good. He
doesn't
> like to give us any symbolic derivations, though. Maybe he's ashamed of
them.
> Anyway, like everyone else on this newsgroup, you can take him or leave
him.
> 73,
> Tom Donaly, KA6RUH
> (PS You've just learned a valuable lesson about grouchy old Brits.)
>

Thanks, Tom, and you, too, Richard. I appreciate the heads-up.

John, KD5YI

1697. Re: What kind of antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 01:25:29 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <cGhTb.201548$I06.2220041@attbi_s01>
Source record: 100719

Diversity DF???

ps wrote:

> I have a photo of an antenna at the Long Marine Labs in Santa Cruz,
> California. The view in the photo is to the n-n-west. I'm curious about
> what looks like some sort of array of rectangular elements. Is this an
> antenna, what type or frequency range? The length of the sides is about
> 1 meter. I can't post a binary on the newsgroup so the image is
> temporarily at this url. http://www.cyberplasm.com/temp/ant_500.jpg
>

1698. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 01:37:24 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <pRhTb.6618$gl2.4379@lakeread05>
Source record: 100720

"Roger Halstead" <mynews@rogerhalstead.com> wrote
> Computers run 24 X 7 (bout 32,000 hours run time a year) and are hard
> wired together with Cat 5 cable.
> No problems since going to UPSs with line conditioning.
>
> Last Fall, this one had over 57 transfers to the UPS over 3 months
> including 3 brown outs, one black out (quite a few hours), and the
> rest was line noise.

I too had at least that many momentary high line-noise and brownout shifts to APC since Hurricane Isabel last September. But my computer runs in real time, so it could only get 8,736 hrs in a year if I left it on all the time :-)

Jack

1699. Re: Lightning Strokes, Masts & Volts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 01:42:03 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <1r9r10dp15omr63bj5fn7m6kakamefshp2@4ax.com>
Source record: 100721

On Sun, 1 Feb 2004 13:04:47 +0200, "don bryant" <dba@yebo.co.za>
wrote:

Man, this one goes back a ways.
>
>But back to the main question...How far should a fence be place around a
>tower. Most of the answers given referred to the "step voltage" case. There
>is another important factor, Side Flashes. A person or animal should not be
>to near a tower since the flash heading to ground can take a parallel path

There are just too many things to be taken into consideration.
There are ground currents which produce some pretty impressive voltage
drops per foot as you go away from the tower base.

There are induced currents in metal objects which of course produces
voltages. Sometimes those volt ages can be as much as several
thousand volts per meter in the conductor from a strike a mile away.
Typically, most damage, as I understand, is done by induced current
and voltage from nearby strikes rather than direct hits.

>if one is standing close by. I don;t know the distance, but I would stay
>10/15 feet away, just in case. It is side flashes that get people standing
>under trees. Plus, there is the danger under trees from fragments of the
>tree, as well as part of it falling on you. In Johannesburg, we get terrific

The problem with "nearby" is the ground current and its associated
voltages as well as the "side flashes". Most livestock farmers have
seen cows, and horses laying near an electric fence that have been
killed by lightening. Generally they were killed due to the voltage
difference between their feet which sent a current through their
bodies.

Even a ground fault in the electrical system that applies 110 volts
directly to a ground rod at the base of a vertical can produce lethal
voltage drops over a few feet near the base of the vertical. I had
one grab me and refuse to let go until I fell over and my knees broke
contact with the wet ground. (and I was hanging onto a bare copper
wire tied to a ground rod.)

Which brings me to... Some times with a truely impressive strike that
has hundreds of thousands of amps and a very steep rise time, the
current in the tower rises so quickly, it produces one whale of a
magnetic field that quenches the current flow. When that happens the
lightening has to go some where and it gets off the tower. It may
even get off near the top and follow a guy wire, or just jump through
the air.

A fence around a tower, or even around a lot with a tower in the
center can have some very impressive currents and voltages induced
when the tower takes a strike.

Were I going to fence a tower, then I think I'd fence my entire back
yard.

73

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>lighting and all thatch roof houses are required to have a vertical rod
> about 1/4 wave on 40 meters).I know all this because my uncle was a musical
>genius, a truly fabulous conductor. He was hit by lighting.
> Joke...sorry)Don ZS6BTP

1700. Re: 1.2GHz YAGIS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 02:05:54 UTC
From: Donnie <"look me up"@qrz.com>
Message-ID: <ltbr10l4f90m40p39ttkhq41mdcsur03a2@4ax.com>
Source record: 100722

On Sat, 31 Jan 2004 09:20:10 -0500, " Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote:

>Why don't you donate these to LIMARC?
>
>Pete
>
>"N2ION" <n2ion@aol.com> wrote in message
>news:20040130071435.18858.00001162@mb-m28.aol.com...
>> I HAVE FOR SALE, 4 KLM 1.2-44LBX YAGIS
>> EMAIL IF SERIOUSLY INTERESTED ONLY
>
They possibly were donate to LIMARC, About every month or so you see N2ION posting gear FS. On
alternate months you see him begging for gear. It is my opinion that this is spam and I wished it
would stop.

Donnie (N4JZH)

''Behold how good and well brethren dwell together in unity''

1701. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 02:11:43 UTC
From: kb8qlr <kb8qlr@peoplepc.com>
Message-ID: <101rcf049hk4se4@corp.supernews.com>
Source record: 100723
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Hey Bob,
I get QST...always have. The contesting stuff doesn't interest me, so I just ignore it. Occasionally I'll see a familiar call and think "hey, I know that guy", then move on.
73
Joe KB8QLR
--
Be sure to check-out our webpages...
http://www.angelfire.com/jazz/kb8qlrjoe/index.html
New pictures & links being added frequently.
"Bob McConnell" <rmcconne@NOSPAM.lightlink.com> wrote in message news:ofg3109bbbqfdm9ip1r6n8mgnkcamr0ou6@4ax.com...
> On Wed, 21 Jan 2004 18:19:04 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
> >Jim wrote:
> >> Pretty much agree with Doc, altho, after the last "restructureing", the
> >> value of a license is worthless!
> >
> >The only value in a license are the privileges granted. The privileges
> >granted haven't changed appreciably. I had full access to all ham bands
> >in 1953 and I still have full access to all ham bands in 2004. I lost
> >11m and 220 MHz but gained the WARC bands. The value of my license is
> >very close to what it was in 1953.
>
> Unfortunately, there are far too many for whom the value of their
> license is measured in how many people it allows them to look down
> their noses at. Their only motivation for moving up was so they could
> gloat over how much better they are than anyone that isn't up to their
> standards. This is also the primary reason that contests and awards
> are rubbed in our faces in most of the magazines and newsletters. This
> is the crowd the ARRL has been cutivating for years, because they
> don't care about advancing the state of the art, or building their own
> equipment, helping others, or any of the other aspects of the hobby
> that used to make it great. They simply want to buy the newest,
> coolest, fanciest or most expensive rig to help them along on their
> ego trip, which keeps the advertisers happy.
>
> Somebody let me know when QST no longer has any contests or award
> notices in it. Then I *might* be interested in looking at it again.
>
> Bob McConnell
> N2SPP

>

1702. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 02:51:27 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040201215127.17062.00001328@mb-m03.aol.com>
Source record: 100724

>|You are absolutely correct; this thread has drifted beyond recognition.
>
>Actually, as threads go this one isn't all the bad. As the originator
>of the thread I believe I know what the topic is.
>
>Yuri can claim that this is away from the "original problem", however,
>the original problem, as he calls it, wasn't the topic of the paper to
>which my original posting pointed.
>
>Wes, N7WS

Sorry again, must be the remnants of Bahama Mammas in me. I didn't realize the precise name of the (new) thread, kinda assuming we are talking "old" stuff. Looks like I have to be more sharper and precise. That Caribbean stuff sure relaxes and blurs things :-)

Yuri, C6AYB

1703. Re: What kind of antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 02:53:58 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <aZiTb.153$Ri6.24@newssvr23.news.prodigy.com>
Source record: 100725

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:cGhTb.201548$I06.2220041@attbi_s01...
> Diversity DF???

Could be a big loop Yagi...the wide-angle
lens has distorted the horizontal axis. Are
the loops lined up, or are they at staggered
heights?

--
Steve
KI5YG/EA
.

>
> ps wrote:
>
> > I have a photo of an antenna at the Long Marine Labs in Santa Cruz,
> > California. The view in the photo is to the n-n-west. I'm curious about
> > what looks like some sort of array of rectangular elements. Is this an
> > antenna, what type or frequency range? The length of the sides is about
> > 1 meter. I can't post a binary on the newsgroup so the image is
> > temporarily at this url. http://www.cyberplasm.com/temp/ant_500.jpg
> >
>

1704. Re: What kind of antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 03:37:00 UTC
From: ps <ps@invalid.com>
Message-ID: <101rheoeq50hqb6@corp.supernews.com>
Source record: 100727

Stephen Cowell wrote:
> "Dave Shrader" <david.shrader@comcast.net> wrote in message
> news:cGhTb.201548$I06.2220041@attbi_s01...
>
>>Diversity DF???
>
>
> Could be a big loop Yagi...the wide-angle
> lens has distorted the horizontal axis. Are
> the loops lined up, or are they at staggered
> heights?

Its not a wide angle lens. They are at varying heights. From the responses I guess this must be some sort of tracking system for marine mammal research. Whales, seals, etc. Don't know for sure.

1705. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 03:58:25 UTC
From: Bob McConnell <rmcconne@NOSPAM.lightlink.com>
Message-ID: <ushr10td27hrh91qs836sr3rf6q1h0op38@4ax.com>
Source record: 100726
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

On Sat, 31 Jan 2004 22:55:05 GMT, "geocal" <geocal@att.net> wrote:

>I suspect that Bob McConnell is being facetious with his suggestion about
>building a QRP rig as part of a ham examination.
>

I was beginning to wonder if anyone caught that. The initial suggestion was that a ham license was worth less after the last restructuring eliminated half of them and reduced the CW requirement. My sarcastic reply was that if they wanted to revert to a time when the license was more difficult to obtain, they weren't going back far enough, but should revert all the way to the era when only an FCC engineer was qualified to test and issue licenses. Then add the assembly to really separate the hams from CBers that can memorize the text book.

Apparently, high schools no longer teach sarcasm as a literary device. Even my pseudo HTML tag didn't clue them in.

I am curious about one thing. In 1977 I took the FCC test series for the commercial phone license. I breezed through third class and passed the second class elements, but missed first class by 6 points. If I had turned around and taken the amateur tests at that time, without the code requirement, what license would I have ended up with?

Bob McConnell
N2SPP

1706. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 04:21:26 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402012021.34e58ace@posting.google.com>
Source record: 100728

Richard, then please,please provide us all with
the facts that you are holding back and enlighten
Cecil and others how Eznec can be manipulated
into tackling the problem of replacing a non dimensional
inductance to one that has physical dimensions
so that all pertinent questions can be answered
If Roy has published a later version of Eznec
that can handle variables which is now the norm
for modern programs more power to him but I am
sure he would let us know So Richard you have
posted many times on this thread with your
normal aloofnes but now is the time surely that
you supply the facts. I and many others say
Eznec cannot handle it,you say baloney yet
your last stab at it proved fruitless
This time give us the real skinny on how Eznec
can handle it. Since you knocked Roy's socalled
poor attitude on one of your latest posts he
obviously is not going to return purely to save you.
So to prove that it is baloney step forward
with the facts which up to now you have not divulged.
Yup it is crunch time, we are all waiting for this
gottcha that you are poised to declare.
We are listening ,show us and especialy Cecil
what you are made of,
that with one single posting you can put us all to shame

Art Unwin KB9MZ.....XG

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<qn2r10deq0n44j4bn37agivkndcod47lq9@4ax.com>...
> On Sun, 01 Feb 2004 23:14:22 GMT, " Art Unwin KB9MZ"
> <aunwin@insightbb.com> wrote:
>
> >Nothing on that post
>
> >> I dunno. When I read it, it looked like a reference to graphical
> >> analysis or the projection of a point that represents a mean within a
> >> surface area (which, again, harkens back to the "sinusoidal" current
> >> distribution curve).
>
> Art,
>
> Write again when you do have something then.
>

> 73's
> Richard Clark, KB7QHC

1707. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 04:57:51 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <jNkTb.163732$nt4.737533@attbi_s51>
Source record: 100729

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0402012021.34e58ace@posting.google.com...
> Richard, then please,please provide us all with
> the facts that you are holding back and enlighten

Richard speak up.... You are on center stage what you have always wanted. We
can all see you standing their with your tights on and the ochestra has
given you more than one cue but still nothing.
We don't mind if you stutter or if your voice is high pitched we are all
interested in the facts that you are about to share with respect to Eznec
and lumped circuitry.
Cum on now, don't be shy, it is your moment on center stage... sieze the
opportunity. Let me get you started
Eznec can do it by....by... cum on
say it Sargent Friday surely told you what your audience is waiting for. No
we are not looking at that evr growing
pool at your feet we just want what Joe Friday wants
the facts,nothing but the facts.
I am not going to ignore you anymore, I have succumbed
to your need to show everybody your special skills so have at it I am
listening to the one who not only threw the first stone but also the second
and third stone so now you have my full attention. This thread has obviously
come to an end and you have the last word, the facts and only the facts
No don't say not enough facts have been given to you like you said on the
lightening thread, we will wait while you refresh your memory or put on a
clean pair of tights.n fact put on a cumber band at the same time incase you
go belly up when you come back. We will wait for you,
remember now Eznec can be used to solve the problem
to say otherwise is baloney because I...I
...I am now going to share with all the true facts that I have been holding
back which is, which is....er...er
which is...is....I know , you are trying to expose me
for what I am !!!!

Art Unwin KB9MZ....XG

1708. Re: What kind of antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 05:14:33 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <_0lTb.7001$gl2.1541@lakeread05>
Source record: 100730

"ps" <ps@invalid.com> wrote
> Its not a wide angle lens. They are at varying heights. From the
> responses I guess this must be some sort of tracking system for marine
> mammal research. Whales, seals, etc. Don't know for sure.

Probably vhf, but the clumsiest looking RDF setup I ever saw.

From http://www.ucsc.edu/currents/01-02/10-08/otters.html
sea otters join conservation research project at Long Marine Lab

About 40 wild sea otters have been outfitted with radio transmitters and
temperature monitors.

1709. Re: Aluminum rod for yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 06:37:59 UTC
From: K6ME <k6me@adelphia.net>
Message-ID: <iP2dnWODZe6ibYDdRVn-tA@adelphia.com>
Source record: 100731

Have you tried ACE Hardware?

1710. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 06:49:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401df3c1_1@corp.newsgroups.com>
Source record: 100732

Art Unwin KB9MZ wrote:
> My point is that
> understanding and agreement will only come when clarity is applied as to why
> Eznec cannot solve the problem. and replace it.

The basic problem is that there is a phase shift through every real-world coil. The lumped inductive reactance model that EZNEC uses doesn't account for any phase shift. If one takes a look at the page of Diamond vhf/uhf antennas in QST, one will observe phasing coils in every one of them. The radiation patterns of these antennas cannot be modeled with EZNEC using the simple lumped inductive reactances. I and others have demonstrated a work-around for horizontal phased arrays by simply using multiple sources or phase-reversing stubs. There exists a 1/2WL of wire with an undesirable current phase. Folding it into a 1/4WL stub works to minimize radiation. Mashing it into a coil works to a certain extent. Even fractal folding would probably work to perform that radiation minimizing function while bringing the radiating array elements into physical alignment.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1711. Re: Damaged by a lightning ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 06:53:09 UTC
From: Roger Halstead <mynews@rogerhalstead.com>
Message-ID: <0tsr10dhtp5r68u0u5igi6bhdteq7dm54h@4ax.com>
Source record: 100733

On Sun, 1 Feb 2004 20:37:24 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>"Roger Halstead" <mynews@rogerhalstead.com> wrote
>> Computers run 24 X 7 (bout 32,000 hours run time a year) and are hard
>> wired together with Cat 5 cable.
>> No problems since going to UPSs with line conditioning.
>>
>> Last Fall, this one had over 57 transfers to the UPS over 3 months
>> including 3 brown outs, one black out (quite a few hours), and the
>> rest was line noise.
>
>I too had at least that many momentary high line-noise and brownout shifts
>to APC since Hurricane Isabel last September. But my computer runs in real
>time, so it could only get 8,736 hrs in a year if I left it on all the time

Note that was computer(s) as in plural. I have 4 <:-))

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>:-)
>
>Jack
>

1712. Balun design / SWR ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 07:18:01 UTC
From: "Wolfgang K. Meister" <no.mail@please.com>
Message-ID: <jrtr101cbafvovq3age37ppuu2188qk62e@4ax.com>
Source record: 100734

Hi all,

I was experimenting over the weekend to design a 1:1 Balun and a 1:9 Unun. Unfortunately I have been not very happy with my results.

Finally I realized that my Vectronics SWR showed a frequency depending SWR of up to 1:2 at higher frequncies, if I used simple 1,5 inch wire clips with a 50 Ohm resistor connected to the PL plug.

My setup was: the Vectronics, the Balun or Unun and a termination resistor, either 50 Ohms or 450 Ohms, very tiny carbon resistors. The wires of the Balun and Unun have been just an inch or so on each side.

By connecting the resistors as short as possible to the PL plug of the Vectronics, I did see a 1:1, so it's the setup that makes a mess.

How can I measure a Balun or Unun, what setup do I need?

Thanks for your replies in advance,
73s de Wolfgang
OE1MWW

1713. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 07:47:40 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <9fnTb.11149$fD.6890@fed1read02>
Source record: 100735
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Bill Turner" <noway@nohow.com> wrote in message
news:bdlo10htfmest0cj8lrj9afjhdtnarckst@4ax.com...
> On Sat, 31 Jan 2004 11:48:48 GMT, Dave Shrader
> <david.shrader@comcast.net> wrote:
>
> >The USA is not a democratic republic! That can still lead to abusive
> >government.
> >
> >The USA is a CONSTITUTIONAL REPUBLIC with the responsibility to govern
> >divided among 3 separate but legally equal branches, executive,
> >legislative, and judicial.
>
> ----------
>
> The USA is a Constitutional Democratic Republic.
>
> 1. We are governed by a Constitution.

Constitutional: Agreed

> 2. We are organized as a republic.

A Republic: Agreed

> 3. The people, through their elected representatives, have the right to
> change the Constitution and any or all laws at any time.
>
> Compare us to a dictatorship or a monarchy where the people DO NOT have
> the right to change ANYTHING.
>
> And that's what makes it a Constitutional Democratic Republic.

A democracy ceases to exist when the public vests their voting privileges in
representatives. The form is then a Republic. See #2 above!

Bill, return to Logic 101, do not pass go or collect $200.

--
Ed
WB6WSN

1714. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 07:51:30 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <LinTb.11161$fD.10921@fed1read02>
Source record: 100736
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:ACMSb.146789$Rc4.1183506@attbi_s54...
> Matt Osborn wrote:

SNIP

> The Democratic Political Party in the USA conveniently forgets that, but
> the Federal and Supreme Courts remind them as needed!

Your opinion would command more respect if you knew that the difference
between "democratic" and "democrat", and were able to correctly name the
political party.

Ed
WB6WSN

1715. Re: Off topic posts - Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 07:53:26 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <zknTb.11168$fD.679@fed1read02>
Source record: 100737
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

```
"Mike Terry" <miketerry73@btinternet.com> wrote in message
news:bvg7nm$2tu$1@titan.btinternet.com...
>
> "Dave Shrader" <david.shrader@comcast.net> wrote in message
> news:2cNSb.152306$nt4.707071@attbi_s51...
> > Cecil Moore wrote:
> >
> > > kh2d@my-deja.com wrote:
> > >
> > >> Cecil, happy new year. Quit crossposting this crap to the DX
newsgroup.
> > >
> > >
> > > All I did was reply to a posting on r.r.a.a
> >
> > Me too!
> >
>
> I suggest we all "block sender" anyone who sends an off topic post and
tell
> the person not to waste their time!
>
>

Doubtless starting with Mike Terry? OK!

Ed
wb6wsn
```

1716. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 07:57:11 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <4onTb.11179$fD.2861@fed1read02>
Source record: 100738
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:528o105v954ecu9tdue4iq5ken8dn9p8kv@4ax.com...
> On Sat, 31 Jan 2004 20:43:25 GMT, "Roger Gt" <not@here.net> wrote:
>
> >He clearly doesn't believe in the First Amendment!
>
> Is that the one that says "every citizen has the right to be an
> asshole"?
>
> --
> Walt Davidson Email: g3nyy @despammed.com

The Second Amendment guarantees me the ability to create a second asshole
for you. Where would you like it?

Ed
wb6wsn

1717. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 09:03:43 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <bvl13d$b04$1@news1.kornet.net>
Source record: 100739
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Ed Price" <edprice@cox.net> wrote in message
news:LinTb.11161$fD.10921@fed1read02...
>
> "Dave Shrader" <david.shrader@comcast.net> wrote in message
> news:ACMSb.146789$Rc4.1183506@attbi_s54...
> > Matt Osborn wrote:
>
> SNIP
>
> > The Democratic Political Party in the USA conveniently forgets that, but
> > the Federal and Supreme Courts remind them as needed!
>
> Your opinion would command more respect if you knew that the difference
> between "democratic" and "democrat", and were able to correctly name the
> political party.
>

Democratic is correct (i.e. the Democratic National Committee, Democratic
Convention, etc.)

1718. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 10:27:15 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <MApTb.11563$fD.5798@fed1read02>
Source record: 100740
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:id4s1017p9gkt6kheuu0d638i4mfn5u3ld@4ax.com...
> On Sun, 1 Feb 2004 23:57:11 -0800, "Ed Price" <edprice@cox.net> wrote:
>
> >The Second Amendment guarantees me the ability to create a second asshole
> >for you. Where would you like it?
>
> There are more than enough assholes in these newsgroups already, thank
> you very much.
>
> In this country, mercifully, we do not have any Amendments ... First,
> Second, or anything else ... so feel free to shove them collectively
> up *your* asshole, OM.
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: g3nyy @despammed.com

Yet another button pushed. Yes!!!!!!!!!!!!

Ed wb6wsn

1719. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 10:27:25 UTC
From: ac6la@arrl.net
Message-ID: <960228f1.0402020227.4656ea59@posting.google.com>
Source record: 100741

Maurizio,

To return to your original question about MF antenna modeling with ground effect (surface wave) included: Both NEC-2 and NEC-4 have the capability to include "ground wave" in the Far Field calculations by using an "RP 1" instead of an "RP 0" radiation pattern card. However, you can also see the ground wave effect by doing Near Field calculations, even if the distance of interest is not physically "near" the antenna.

The MultiNEC program allows you to calculate the electric field strength in millivolts per meter (or volts/m) using both far field and near field algorithms, and then allows you to plot both on a familiar polar diagram.

I have uploaded a few illustrations. The first shows an elevation pattern for a quarter wave vertical over Sommerfeld ground, including radials that are very close to, but slightly above, the ground level. The frequency is 1.832 MHz, in the amateur 160 meter band. Calculations were done with a NEC-2 engine.

www.qsl.net/ac6la/adhoc/nfversusff.png is a full screen capture and

www.qsl.net/ac6la/adhoc/nfversusff.gif is just the plot itself. You can see that at low elevation angles the field strength that is calculated using normal far field methods (RP 0 card) does not include the surface wave, whereas the near field calculations clearly show the ground wave effect.

The actual mV/m values in this example are for a radius (distance from the coordinate system origin) of 1000 meters and a power level of 1000 watts. The full screen image shows the green dot marker on the near field trace with a value of about 148 mV/m at 5ï¿½ elevation. The plot-only image shows the marker moved to the far field trace, calculated (without ground wave included) to be about 90 mV/m at the same elevation. At elevations below about 30ï¿½ the normal far field results are clearly inaccurate. Above about 30ï¿½ elevation the near field and far field results are almost identical.

You can also plot the field strength for an azimuth slice, 360ï¿½ around at a given observation height above the ground.

www.qsl.net/ac6la/adhoc/ambcast.gif shows an E-field strength pattern (using Near Field calcs) at a radius of 1000 meters and a height above ground of 2 meters. In this case the antenna model is for a real-world AM broadcast radio station in California and includes four towers, guy wires, and a buried ground screen. (This calculation was

done using NEC-4 but you could also use NEC-2 by raising the entire structure slightly above ground.) I believe this type of plot is required as part of the FCC licensing application. I am not a professional engineer (far from it!) but I worked closely with someone who is in order to implement this plotting function in MultiNEC.

The MultiNEC program is not freeware but the price is very modest. For more information and a demo download please see www.qsl.net/ac6la/.

Dan

1720. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 10:45:30 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <TRpTb.11610$fD.2355@fed1read02>
Source record: 100742
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Brenda Ann" <brendad@shinbiro.com> wrote in message
news:bvl13d$b04$1@news1.kornet.net...
>
> "Ed Price" <edprice@cox.net> wrote in message
> news:LinTb.11161$fD.10921@fed1read02...
> >
> > "Dave Shrader" <david.shrader@comcast.net> wrote in message
> > news:ACMSb.146789$Rc4.1183506@attbi_s54...
> > > Matt Osborn wrote:
> >
> > SNIP
> >
> > > The Democratic Political Party in the USA conveniently forgets that,
but
> > > the Federal and Supreme Courts remind them as needed!
> >
> > Your opinion would command more respect if you knew that the difference
> > between "democratic" and "democrat", and were able to correctly name the
> > political party.
> >
>
> Democratic is correct (i.e. the Democratic National Committee, Democratic
> Convention, etc.)

NO, "Democratic" is NOT correct, despite vast quantities of double-speak at
http://www.democrats.org/about/history.html . It's their right to call
themselves what they wish, but, if you examine the language, you will see
that "democratic" is an adjective. An object (that is, a person) cannot be
an adjective.

It's a group of people, thus a party. And if they call themselves democrats,
then it is a party of democrats. But it certainly is not proven to be a
democratic party. Accurate thought requires accuracy in language. It's a
point probably long lost, as our voters can't even punch a hole in a card
with reasonable accuracy.

Ed
wb6wsn

1721. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 11:23:22 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <bvl998$e4n$1@news1.kornet.net>
Source record: 100743
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

```
"Ed Price" <edprice@cox.net> wrote in message
news:TRpTb.11610$fD.2355@fed1read02...
>
> "Brenda Ann" <brendad@shinbiro.com> wrote in message
> news:bvl13d$b04$1@news1.kornet.net...
> >
> > "Ed Price" <edprice@cox.net> wrote in message
> > news:LinTb.11161$fD.10921@fed1read02...
> > >
> > > "Dave Shrader" <david.shrader@comcast.net> wrote in message
> > > news:ACMSb.146789$Rc4.1183506@attbi_s54...
> > > > Matt Osborn wrote:
> > >
> > > SNIP
> > >
> > > > The Democratic Political Party in the USA conveniently forgets that,
> but
> > > > the Federal and Supreme Courts remind them as needed!
> > >
> > > Your opinion would command more respect if you knew that the
difference
> > > between "democratic" and "democrat", and were able to correctly name
the
> > > political party.
> > >
> >
> > Democratic is correct (i.e. the Democratic National Committee,
Democratic
> > Convention, etc.)
>
> NO, "Democratic" is NOT correct, despite vast quantities of double-speak
at
> http://www.democrats.org/about/history.html . It's their right to call
> themselves what they wish, but, if you examine the language, you will see
> that "democratic" is an adjective. An object (that is, a person) cannot be
> an adjective.
>
> It's a group of people, thus a party. And if they call themselves
democrats,
> then it is a party of democrats. But it certainly is not proven to be a
> democratic party. Accurate thought requires accuracy in language. It's a
> point probably long lost, as our voters can't even punch a hole in a card
```

> with reasonable accuracy.

Maybe we should be "hanging chad" in effigy? :)

1722. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 12:21:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvlfcm$79q$1@titan.btinternet.com>
Source record: 100744

Sorry John, I didn't realise you are a novice.

To answer your question about how to calculate the 1/4-wave resonant frequency of a vertical antenna, use the following formula -

Fres = 75 / Height * Velocity Factor

As given in the simple example in my first posting, Height = 1.5 metres and Velocity Factor = 0.0701

And so the resonant frequency calculates to Fres = 3.5 MHz.

If you are unfamiliar with "velocity factor" then I suggest you do a Google on it.

Reg

1723. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 12:35:55 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <LurTb.78607$U%5.422581@attbi_s03>
Source record: 100745
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Ed Price wrote:

>
>>The Democratic Political Party in the USA conveniently forgets that, but
>>the Federal and Supreme Courts remind them as needed!
>
>
> Your opinion would command more respect if you knew that the difference
> between "democratic" and "democrat", and were able to correctly name the
> political party.
>
>
> Ed
> WB6WSN
>

The sentence structure is correct!!!

'Democratic' is an adjective! Political Party is the compound noun.

DD

1724. Are we a Ham RADIO NG, or a soap-box ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 13:45:44 UTC
From: Charles Brabham <n5pvl@sbcglobal.net>
Message-ID: <cwsTb.327$CO.219@newssvr23.news.prodigy.com>
Source record: 100746
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Get this political crap off of all of these ham newsgroups. Who is doing this, some anti-ham types, SPAMMING the ham newsgroups with brainless, off-topic political crap?

Charles Brabham, N5PVL

1725. Re: Are we a Ham RADIO NG, or a soap-box ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 14:12:25 UTC
From: "S. Sampson" <k5okcNOSPAM@cox.net>
Message-ID: <fVsTb.15671$Q_4.14880@okepread03>
Source record: 100747
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

By definition, newsgroups are soapboxes...

The answer is yes.

"Charles Brabham" <n5pvl@sbcglobal.net> wrote
>
> Get this political crap off of all of these ham newsgroups. Who is doing
> this, some anti-ham types, SPAMMING the ham newsgroups with brainless,
> off-topic political crap?

1726. VHF/UHF Experiment -

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 14:23:29 UTC
From: "G.M. Cotton" <gordon@nospam.gmcotton.com>
Message-ID: <B3tTb.101612$9Ce1.20097@news04.bloor.is.net.cable.rogers.com>
Source record: 100748

Been out of the game for awhile, and starting to get back into the ham thing again. Looking to do some playing on 6M, 2M and 70cm - using low power around 5 watt max - maybe as high as 10w. My old yagis have been storm damaged and the wx is not the best for antennea work, so here is what i would like to try.

Using a TV vhf/uhf log periodic as the antennea, fed with RG6 - question is how much pwer can those small TV type baluns handle? Anyone out there tried this set up? Not expecting great results, just something to play with . Have tuners for 6 and 2M, can rig sopmething for 70cm.

Any and all comments welcome.

73
Gordon VE9GC

1727. T Antenna for 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 14:30:39 UTC
From: Scott Gordon <sgordon@gordonsweb.net>
Message-ID: <jatTb.35858$P%1.28366800@newssvr28.news.prodigy.com>
Source record: 100749

I seen in a recent article showing a Compact T Antenna for 160 Meters.

Tophat is 80 ft long and the T is connected in the center and should be 40ft long with a 20uH to the feedpoint then the shield to ground.

Has anyone used one of these antennas? I use a Inverted L right now and it is playing very well but the noise is S9 to 5 Over. I understand the the T Antenna is a much more quiet antenna?

Thanks
Scott

1728. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 15:13:10 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <bvlp09jrf1@fata.cs.interbusiness.it>
Source record: 100750

> Isn't waveguide kind of big at 13.56 MHz?
>
> John
>

forgive me, but I don't understand what you mean.
Massimo

1729. rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 16:20:25 UTC
From: ultanir_99@yahoo.com
Message-ID: <c403e21f.0402020820.16e7c4a2@posting.google.com>
Source record: 100751
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi all,

I am looking for rf antennas that could fit into a 1" by 1" plastic
case, operating frequency >500Mhz. They could also be pcb antennas.
Could you suggest me some places to lookfor?

Thanks,
Adam

1730. Re: Did I do this TV antenna right for 665mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 16:48:00 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bvlv3a$9bi$1@newshost.mot.com>
Source record: 100753

If I understand, you made the antenna twice as long as necessary. See
below.

"Caezaar" <caezaar@yahoo.com> wrote in message
news:1d3101b2.0402010855.635c9571@posting.google.com...
> Trying to pull in TV channel 46 for an afternoon superbowl viewing.
> To make a temporary antenna, Here's what I did:
>
> 1. figured that Channel 46 is roughly 665mhz
> 2. Divided 496 by 665 and came up with 8 3/8 inch length

496 (I thought it is 486, but close enough) gives the length of a
dipole's total length, not each half of a dipole.

> 3. Screwed TWO 8 3/8" pieces of electric fence wire to a 2x1x1/2 wood
> block

This is now TWO half waves.

> 3.5. (Made the wires face away from each other as straight as
> possible)

Not sure what "face away from each other "means?? I can only guess that
you mean "end-to-end". That is, the two wires are both in a single line
with two ends close together (at the two screws).

> 3.6. (The distance between the screws is approx 1/4 inch)
> 4. Ran 50 feet of 300 ohm coax attached with one pole wire to each
> lead [...mechanical details ... snip...]
> 8. Spun the antenna for best reception (seems to point at repeater)

Not sure what you mean "Point at". I assume you mean the TV repeater.

The folded dipole suggestion made in the other post would be good. Take a
piece of 300 ohm twinlead and make it 8-3/8 long with both ends shorted
together. Yes, twist together about 1/2 inch of each of the two 300 ohm
wires at each end (solder optional). Precisely in the middle, cut only one
of the twinlead wires and connect the feed line to the two loose ends you
just created.
--
Steve N, K,9;d, c. i My email has no u's.

1731. Re: Noise - MFJ-1265?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 16:56:57 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bvlvk3$a5c$1@newshost.mot.com>
Source record: 100754

Some very good suggestions. I will add that birdies at this spacing can
also suggest things like switching power supplies. Many things have them
now. If A portable receiver to hear them can go a long way.

--
Steve N, K,9;d, c. i My email has no u's.
"W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
news:bvjgns$8vd9$1@news3.infoave.net...
> Before spending money on a phasing unit, run a few of the following
checks.
>
> 1. Remove antenna - check for birdies. If they are still there start
looking
> at the receiver.
>
> 2. If no birdies, assuming rig can run on 12 Volts, remove power supply
and
> substitute a battery. Reconnect antenna. Check for birdies.
>
> 3. If birdies, throw house master breaker and see if they go away. If they
> do as I suspect they will turn breaker back on and turn off breakers one
at
> a time untill you find out it is a clock radio or some other electronic
> device.
>
> 4. If they still persist, start driving around the neighborhood looking
for
> increased signal strength.
>
> Had a similar problem one time, turned out to be an old radio in the
attic.
> My wife had been up there sorting boxes and plugged in an old radio to
> listen to. She had turned it down, but not off and it was creating havoc.
>
> You did not mention the rig your using , that would be helpful.
>
> "Ronald Walters" <rwalters8@cfl.rr.com> wrote in message
> news:9R9Tb.126611$873.2707593@twister.tampabay.rr.com...
> > Background: Within the past several months my QTH which was virtually a
> > very low noise environment now is one of the nosiest QTH's I have ever
> lived
> > in. Birdies every 17 kc across 160-80 and 40. Some nights its worse
with
> > birdies every 5-7-kc. These are not low signal strengths either but up

to
> a
> > S-9+ on 80 meters.
> > have check with all of my neighbors since initially it would start right
> at
> > 5 PM and last all night until 7:30 in the morning. My first thought was
> an
> > auto light fixture. Well it's gotten bad and doesn't seem to be on a
> > regular time schedule. Feelings are TV or touch lamp. Possible PC but
> > don't know. Power company is Florida Progress which is a Duke Energy
> > company. Have heard that Duke is playing with their new Internet access
> > over power lines but I do not think it has hit the central Florida
market.
> >
> > Question - I am thinking about trying the MFJ-1265 Noise phasing unit.
> Have
> > read an old review on ARRL and other comments on some bulletin boards
but
> am
> > wondering if anyone out there has experience with the unit and what
their
> > honest impression is. In addition to that unit I plan on a complete
> rework
> > of the antenna and grounding system her just to make sure I do not have
a
> > poor joint in the system that is providing some rectification and being
> self
> > induced. Any comments will be appreciated.
> >
> > Again thanks to the list for accepting this inquiry, I respect the
> expertise
> > of the this group.
> >
> > Ron - W4LDE
> >
> >
>
>

1732. Re: T Antenna for 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 16:59:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvlvkqrul1@hercules.btinternet.com>
Source record: 100752

An inverted-L antenna can be converted to a T-antenna just by sliding the vertical wire from the end of the L to the centre of the T. At intermediate positions we get the original Windom antenna.

The small difference in configuration between the two is unlikely to have much of an effect on signal to noise ratio.

The T behaves more like a true vertical than the L. It is well known the vertical is a low-angle receiving antenna and therefore picks up more locally generated noise.

So if there *IS* any difference between the two then it will be in favour of your existing inverted-L.

The local noise environment, ie., where the noise is coming from, will also have an effect at least as great changing the wire configuration. But not very much.

(By the way, the lengths of the T-antenna wires are non-critical. The bottom-end loading coil can be dispensed with and incorporated in the tuner if the tuner has sufficient inductance.)

Reg, G4FGQ

==========

"Scott Gordon" wrote -
> I seen in a recent article showing a Compact T Antenna for 160 Meters.
>
> Tophat is 80 ft long and the T is connected in the center and should be
40ft
> long with a 20uH to the feedpoint then the shield to ground.
>
> Has anyone used one of these antennas? I use a Inverted L right now and
it
> is playing very well but the noise is S9 to 5 Over. I understand the the
T
> Antenna is a much more quiet antenna?
>
> Thanks
> Scott
>
>

1733. Re: Folded counterpoise?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 17:01:13 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bvlvs3ahr1@newshost.mot.com>
Source record: 100755

The simple answer is no. The wires must run more or less in a straight line
away from the base of the antenna. A little bending can be done, like an
"L", but you can't just zig-zag it back and forth in a 50 ft length.
--
Steve N, K,9;d, c. i My email has no u's.

"Ken" <cprstn54zz@att.net> wrote in message
news:d04o10589j2aa4b51qs0q8skk2o1n3r6u5@4ax.com...
> I am about to make a multiband QRP counterpoise along the lines of the
> one suggested in ARRL Low Power Communication at p. 6-2 -- which
> employs a 50 ft length of flat 5-conductor cable.
>
> Rather than use the 5-conductor rotator cable the author suggests, I
> want to use ubiquitous 10-conductor computer rainbow ribbon cable, .05
> pitch, zip construction, 28 AWG.
>
> The author suggests a 50 ft length, which covers most bands from
> 10-80, with only the 80M counterpoise longer than 50 ft (it continues
> -- connected tail to head -- onto the next conductor for 15.7 ft.)
>
> Having five additional conductors on my ribbon cable than the author
> had on his rotator cable, I want to add a few bands, 160M in
> particular. This needs to run 131 ft, which is two full 50 ft passes
> and one 31 ft length -- also to be connected tail to head, head to
> tail, tail to head -- like a collapsed letter "Z" (or "N", for that
> mater).
>
> Does it matter if I put these right next to each other (i.e. 0.05"
> away)? Or should I separate them with a non-resonant conductor? Or
> what?
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

1734. Re: Balun design / SWR ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 18:07:11 UTC
From: k7itm@aol.com
Message-ID: <3200347.0402021007.69462929@posting.google.com>
Source record: 100756

You didn't mention the specific frequency, and that can make a big
difference. I would expect wire to give you roughly four nanohenries
per centimeter, and if you add 12cm*4nH/cm=48nH in series with 50
ohms, you get to a 2:1 SWR at about 120MHz. That doesn't account for
the shunt capacitance the wires also introduce, which would reduce the
SWR somewhat, or increase the frequency at which you see 2:1. In
general, you should connect the load either immediately at the balun
or unun output, or through transmission line with impedance equal to
the load (or at least the same as the impedance of the transmission
line you plan to connect).

I'm assuming your meter doesn't respond to external fields, and only
to forward and reflected on the line, but if it does respond to
external fields, that's also an issue.

Cheers,
Tom

Wolfgang K. Meister <no.mail@please.com> wrote in message
news:<jrtr101cbafvovq3age37ppuu2188qk62e@4ax.com>...
> Hi all,
>
> I was experimenting over the weekend to design a 1:1 Balun and a 1:9
> Unun. Unfortunately I have been not very happy with my results.
>
> Finally I realized that my Vectronics SWR showed a frequency depending
> SWR of up to 1:2 at higher frequncies, if I used simple 1,5 inch wire
> clips with a 50 Ohm resistor connected to the PL plug.
>
> My setup was: the Vectronics, the Balun or Unun and a termination
> resistor, either 50 Ohms or 450 Ohms, very tiny carbon resistors. The
> wires of the Balun and Unun have been just an inch or so on each side.
>
> By connecting the resistors as short as possible to the PL plug of the
> Vectronics, I did see a 1:1, so it's the setup that makes a mess.
>
> How can I measure a Balun or Unun, what setup do I need?
>
> Thanks for your replies in advance,
> 73s de Wolfgang
> OE1MWW

1735. Re: T Antenna for 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 18:44:35 UTC
From: Scott Gordon <sgordon@gordonsweb.net>
Message-ID: <nUwTb.35904$P%1.28401507@newssvr28.news.prodigy.com>
Source record: 100757

Reg,

Thanks for your input. I had read in another article that a T would be much quieter or it was for this ham. Quote "At my QTH my 1/4 wave inverted L noise level was always S9 to +5 over. With my linear loaded voltage fed Tee, the noise level has been reduced to S0-1." unQuote.

I don't really have room for a dipole on 160 meters, it would probably be a little more quite than what I have. I read a artical as well in W6SAI antenna book about a compact T antenna that I will try out once the weather warms up a bit.

Thanks
Scott

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:bvlvkqrul1@hercules.btinternet.com...
> An inverted-L antenna can be converted to a T-antenna just by sliding the
> vertical wire from the end of the L to the centre of the T. At intermediate
> positions we get the original Windom antenna.
>
> The small difference in configuration between the two is unlikely to have
> much of an effect on signal to noise ratio.
>
> The T behaves more like a true vertical than the L. It is well known the
> vertical is a low-angle receiving antenna and therefore picks up more
> locally generated noise.
>
> So if there *IS* any difference between the two then it will be in favour of
> your existing inverted-L.
>
> The local noise environment, ie., where the noise is coming from, will also
> have an effect at least as great changing the wire configuration. But not
> very much.
>
> (By the way, the lengths of the T-antenna wires are non-critical. The
> bottom-end loading coil can be dispensed with and incorporated in the tuner
> if the tuner has sufficient inductance.)
> ----
> Reg, G4FGQ
>

> ==========
>
> "Scott Gordon" wrote -
> > I seen in a recent article showing a Compact T Antenna for 160 Meters.
> >
> > Tophat is 80 ft long and the T is connected in the center and should be
> 40ft
> > long with a 20uH to the feedpoint then the shield to ground.
> >
> > Has anyone used one of these antennas? I use a Inverted L right now and
> it
> > is playing very well but the noise is S9 to 5 Over. I understand the
the
> T
> > Antenna is a much more quiet antenna?
> >
> > Thanks
> > Scott
> >
> >
>
>

1736. Re: Are we a Ham RADIO NG, or a soap-box ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 19:03:04 UTC
From: lanashubby@lycos.com
Message-ID: <4eb2284e.0402021103.434cfad6@posting.google.com>
Source record: 100758
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Charles Brabham" <n5pvl@sbcglobal.net> wrote in message
news:<cwsTb.327$CO.219@newssvr23.news.prodigy.com>...
> Get this political crap off of all of these ham newsgroups. Who is doing
> this, some anti-ham types, SPAMMING the ham newsgroups with brainless,
> off-topic political crap?
>
> Charles Brabham, N5PVL

Read the headers, and, if you don't think you'll like the topic....

DON'T READ IT!!!

Self-editing what you read, and being selective, is a requirement
in any truly free society. Don't bitch, because you won't change
the behavior of others. You are responsible for YOU, and you alone.
If you don't like it, don't read it. (Your radio has a VFO knob,
does it not? If you don't like the topic of a QSO, do you keep
listening, or find something else to listen to, perhaps another
QSO to participate in)

73,

Steve Lawrence
Burnsville, Minnesota

1737. Re: Folded counterpoise?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 19:25:48 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <gk7t109t4fhmeq6kie7nibvsr9a2pgj4jf@4ax.com>
Source record: 100759

On Mon, 2 Feb 2004 11:01:13 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:
>The simple answer is no. The wires must run more or less in a straight line
>away from the base of the antenna. A little bending can be done, like an
>"L", but you can't just zig-zag it back and forth in a 50 ft length.

I found another posting that suggested that it is OK to fold the
counterpoise, as long as the folds are kept away from the antenna. Is
this true?

Assuming this is true, how far is far enough? It was anticipated that
the ribbon would run right up to the tuner. I could drop the 10M
conductor from the ribbon (using a separate radial for that) and put
the rest of the bands on ribbon cable that was 8.4 ft away. Or I
could put 10M, 12M, 17M and 20M on their own 4-conductor radial, 16.6
ft long, and start the ribbon cable for 30, 40/15, 80 and 160/60 at
the end of a 16.6 ft wire (which could even be a fifth conductor on
the high-band segment).

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1738. Re: T Antenna for 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 19:34:34 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402021134.62af5190@posting.google.com>
Source record: 100760

"Scott Gordon" <sgordon@gordonsweb.net> wrote in message
news:<jatTb.35858$P%1.28366800@newssvr28.news.prodigy.com>...
> I seen in a recent article showing a Compact T Antenna for 160 Meters.
>
> Tophat is 80 ft long and the T is connected in the center and should be 40ft
> long with a 20uH to the feedpoint then the shield to ground.
>
> Has anyone used one of these antennas? I use a Inverted L right now and it
> is playing very well but the noise is S9 to 5 Over. I understand the the T
> Antenna is a much more quiet antenna?

Nope. Should be little if any difference. The only real difference
will be an overhead null on the T, compared to no null on the L due to
the unbalanced horizontal loading wire. The pattern of the T is much
the same as a monopole.
I use both here. The T is usually the best at any long distance. The
current distribution is much better on my T than on the L. So it has
less ground loss, and is more efficient. My T is about 40 ft tall, and
has 4 60 ft loading wires. "120 ft across". The difference between
using 4 top load wires and 2 top load wires seemed to be pretty small.
MK

1739. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 19:35:04 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <ee137ed4.0402021135.725ba555@posting.google.com>
Source record: 100761
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

DS,

Democrat is what they "The Democrat Party" officially Call themselves.

"DNC" Democrat National Committee
http://www.democrats.org/
http://www.democrats.com/

NOTE: Most of the State Parties use the Word "Democratic"
'officially' in their names.

FWIW: The will Accept and Cash Your Check with either name
"Democrat" or "Democratic" written on it :o)

OBTW: In CANADA the NDP New Democratic Party does 'officially'
use the Word "Democtatic".
http://www.ndp.ca/language/?thisURL=%2Findex.php3
http://www.ndp.ca/contact/index.php3?language=english

! BUT WHAT IS IN A NAME - AND WHO USES IT !

The Word "Democratic" is Part of the Official Name of Many Countries:
http://www.cia.gov/cia/publications/factbook/fields/2142.html

* Some use the Word DEMOCRATIC in their Official Name:
People's Democratic Republic of Algeria
Democratic People's Republic of Korea
Lao People's Democratic Republic
Great Socialist People's Libyan Arab Jamahiriya
Democratic Republic of the Congo
Democratic Republic of Timor-Leste
Federal Democratic Republic of Ethiopia
Democratic People's Republic of Korea
Lao People's Democratic Republic
Democratic Republic of Sao Tome and Principe
Somali Democratic Republic
Democratic Socialist Republic of Sri Lanka

* Some simply use the Word PEOPLE'S in their Official Name:
People's Republic of Bangladesh
People's Republic of China

* Some still use the Word SOCIALIST in their Official Name:
Socialist Republic of Albania
Socialist Republic of Vietnam

* Some 'now' use the Word ARAB or ISLAMIC in their Official Name:
Arab Republic of Egypt
Great Socialist People's Libyan Arab Jamahiriya
Kingdom of Saudi Arabia
Syrian Arab Republic
United Arab Emirates
Transitional Islamic State of Afghanistan
Islamic Republic of Iran
Islamic Republic of Mauritania
Islamic Republic of Pakistan

NOTE: Most of the above are "Nationalistic" ONE PARTY Systems [.]

tfdnl! ~ RHF
= = = The Facts Do Not Lie !
.
.
= = = Dave Shrader <david.shrader@comcast.net>
= = = wrote in message news:<LurTb.78607$U%5.422581@attbi_s03>...
> Ed Price wrote:
>
>
> >
> >>The Democratic Political Party in the USA conveniently forgets that, but
> >>the Federal and Supreme Courts remind them as needed!
> >
> >
> > Your opinion would command more respect if you knew that the difference
> > between "democratic" and "democrat", and were able to correctly name the
> > political party.
> >
> >
> > Ed
> > WB6WSN
> >
>
> The sentence structure is correct!!!
>
> 'Democratic' is an adjective! Political Party is the compound noun.
>
> DD
>
.

1740. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 19:48:33 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401EA991.BC96A69@uci.edu>
Source record: 100762

Cecil Moore wrote:
>
> Art Unwin KB9MZ wrote:
> > Did you find something wrong with my suggestion above?
>
> Nope, nothing "wrong". I just avoid making assertions when I'm
> not 95% certain that I am correct. Thus, most of the time, I am
> unresponsive. I am 95% certain that the average humongous mobile
> loading coil is not "physically small" and is more like a
> certain percentage of a helical antenna which indeed does
> obviously demonstrate a net current gradient.

It's certainly true that such a coil is not 'electrically' small.

73, Jim AC6XG

1741. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:00:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <np9t105t87iftcf4l3lvj9c7mk5hs3ajlr@4ax.com>
Source record: 100763

On 1 Feb 2004 20:21:26 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

> how Eznec can be manipulated
>into tackling the problem of replacing a non dimensional
>inductance to one that has physical dimensions
>so that all pertinent questions can be answered

Art,

It is clear that you write far more than you read. I did this already
in a posting, in this thread:
>>This may be found at:
>>http://www.k3bu.us/loadingcoils.htm
to which you responded:
>Obscure posting
So clearly, even with the information offered, you lack the capacity
to follow the rather simple instructions offered by
1.) Yuri,
2.) Roy,
3.) Myself
that must've occupied all of two sentences.

>So to prove that it is baloney step forward
>with the facts which up to now you have not divulged.

Art seeing it was YOUR claim, it is clearly baloney barring any
demonstration from you (we should live so long) of its accuracy,
irregardless of how
1.) Yuri,
2.) Roy,
3.) Myself
offer solutions.

What is more to the issue, is that it doesn't amount to 1dB
difference, a fact that is clearly upheld by work outside of EZNEC by
Wes.
www.qsl.net/n7ws
to which you responded:
>>Nothing on that post

So there you have it. Two sources, 4 individuals' work, and you have
nothing to offer - still.

You can at least let us know if you saw your shadow. If you cannot
muster the facts to answer this, I see no reason to respond to your
whining.

73's
Richard Clark, KB7QHC

1742. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:04:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401eae1f_2@corp.newsgroups.com>
Source record: 100764

Jim Kelley wrote:
>
> Cecil Moore wrote:
>>Nope, nothing "wrong". I just avoid making assertions when I'm
>>not 95% certain that I am correct. Thus, most of the time, I am
>>unresponsive. I am 95% certain that the average humongous mobile
>>loading coil is not "physically small" and is more like a
>>certain percentage of a helical antenna which indeed does
>>obviously demonstrate a net current gradient.
>
> It's certainly true that such a coil is not 'electrically' small.

And it seems to me that most of the coil models assume "physically small" coils which leads me to my next question. Are there no models for "physically large" coils? The arguments involving "physically small" coils are only valid for physically small coils. What about all the other coils in the world that are not "physically small"?

Seems to me that a helical antenna functions approximately the same above ground or in free space. Where is the virtual ground in free space?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1743. Re: VHF/UHF Experiment -

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:10:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hcbt10lnb9mhj7q9cnth5fkp75fkd6tchq@4ax.com>
Source record: 100765

On Mon, 02 Feb 2004 14:23:29 GMT, "G.M. Cotton"
<gordon@nospam.gmcotton.com> wrote:

>Been out of the game for awhile, and starting to get back into the ham thing
>again. Looking to do some playing on 6M, 2M and 70cm - using low power
>around 5 watt max - maybe as high as 10w. My old yagis have been storm
>damaged and the wx is not the best for antennea work, so here is what i
>would like to try.
>
>Using a TV vhf/uhf log periodic as the antennea, fed with RG6 - question is
>how much pwer can those small TV type baluns handle? Anyone out there
>tried this set up? Not expecting great results, just something to play with
>. Have tuners for 6 and 2M, can rig sopmething for 70cm.
>
>Any and all comments welcome.
>
>73
>Gordon VE9GC
>

Hi Gordon,

Consider, in this case the purpose of a BalUn is to maintain a match
against widely different Z's (typically consisting only of the
resistive part). The BalUn is typically very efficient, Typically
you encounter a low SWR. With those things considered, the only risk
is one of heat. You already answer that with efficiency (power goes
out the antenna, not up in heat). Further, if 10W is as hot as it
would get, imagine holding a christmas tree bulb (7.5W). How much
risk would that be (and we still wouldn't expect it from an efficient
component passing 10W through it)?

73's
Richard Clark, KB7QHC

1744. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:12:54 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401eb010_2@corp.newsgroups.com>
Source record: 100766

Richard Clark wrote:
> What is more to the issue, is that it doesn't amount to 1dB
> difference, a fact that is clearly upheld by work outside of EZNEC by
> Wes. www.qsl.net/n7ws

Ahhhh, but the argument was *never* over the dB's of difference. The argument was over whether a current taper exists in a mobile 75m Bugcatcher coil. Wes's modeled distributed coils even possess a current taper as does all but one of the coils measured by W7EL and W8JI. Introducing dB's of difference is just a diversion. "What difference does it make how many angels can dance on the head of a pin?" is one more question that doesn't even come close to answering the original question.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1745. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:17:44 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <IfyTb.212012$na.345127@attbi_s04>
Source record: 100767

Jim What is electrically smal and compared to what ?.
If one can make a small loop containing a small variable inductance as one would make a variable capacitive form
which is what, 1/10 of a wave length and is inserted in Cecils drawing which is more than a wavelength long I would consider that relatively small. Since the circuit generated is purely from the constituents of the original inductance then the relatively small loop can be inserted.
Knowing that the radiating surface is the inductance before it was reduced what is to stop inserting the small loop in a black box that has dimensions such that ports can be directly compared.? Cecil has stated that he is is confident that he is correctin his assertions (and he may well be) he is not interested in counter proposals.
Sort of reminds me that Bush also comes from Texas !
We therefore must accept what Cecil says as unreservidly correct.and there is nothing more to be said regarding the technical underpinnings. Either that or attack the man himself which cannot provide resolution.
Regards
Art

"Jim Kelley" <jwkelley@uci.edu> wrote in message
news:401EA991.BC96A69@uci.edu...
>
>
> Cecil Moore wrote:
> >
> > Art Unwin KB9MZ wrote:
> > > Did you find something wrong with my suggestion above?
> >
> > Nope, nothing "wrong". I just avoid making assertions when I'm
> > not 95% certain that I am correct. Thus, most of the time, I am
> > unresponsive. I am 95% certain that the average humongous mobile
> > loading coil is not "physically small" and is more like a
> > certain percentage of a helical antenna which indeed does
> > obviously demonstrate a net current gradient.
>
> It's certainly true that such a coil is not 'electrically' small.
>
> 73, Jim AC6XG

1746. Re: Are we a Ham RADIO NG, or a soap-box ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:22:30 UTC
From: RedOctober90@space.com
Message-ID: <9553ed5f.0402021222.57459347@posting.google.com>
Source record: 100768
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Charles Brabham" <n5pvl@sbcglobal.net> wrote in message
news:<cwsTb.327$CO.219@newssvr23.news.prodigy.com>...
> Get this political crap off of all of these ham newsgroups. Who is doing
> this, some anti-ham types, SPAMMING the ham newsgroups with brainless,
> off-topic political crap?
>
> Charles Brabham, N5PVL

Posting this type of message just encourages more from the trolls,
just killfile the users as they crosspost or off-topic post.... no big
deal.. mines growing at a nice steady rate.

1747. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:24:32 UTC
From: Gerry <noway@nospam.com>
Message-ID: <4myTb.11718$KV5.6059@nwrdny01.gnilink.net>
Source record: 100819
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"> I am looking for rf antennas that could fit into a 1" by 1" plastic
> case, operating frequency >500Mhz. They could also be pcb antennas.
> Could you suggest me some places to lookfor?
>

Microstrip Antennas, D. M. Pozar, Proceedings of the IEEE, Vol. 80 No. 1,
January, 1992, page 79 et seq

Or go the Patent Office website (www.uspto.gov) and search for patents
issued to Martin V. Schneider.

73 de W2GERry

1748. Re: Folded counterpoise?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:25:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jobt10dfpovp4keuncicq9cfa32rh17oc3@4ax.com>
Source record: 100820

On Mon, 02 Feb 2004 19:25:48 GMT, Ken <cprstn54zz@att.net> wrote:

>It was anticipated that
>the ribbon would run right up to the tuner. I could drop the 10M
>conductor from the ribbon (using a separate radial for that) and put
>the rest of the bands on ribbon cable that was 8.4 ft away. Or I
>could put 10M, 12M, 17M and 20M on their own 4-conductor radial, 16.6
>ft long, and start the ribbon cable for 30, 40/15, 80 and 160/60 at
>the end of a 16.6 ft wire (which could even be a fifth conductor on
>the high-band segment).

Hi Ken,

Ultimately if you are going to use a tuner, what does it matter?

If the radials lie along the ground, what does it matter? The
proximity of ground is going to detune them anyway unless you get some
serious elevation (80/160M?) for the feedpoint. The proximity of
ground is going to kill the Q to the point of no serious tuning issue.
The proximity of ground is not going to be masked by onesy-twosy
radials. When you've already lost 6dB to ground, who's going to
notice another quarter dB lost to the tuner?

Run them zig-zag? What does it matter? Such conflicting advice is
obscured by results out two decimal places - your contact wouldn't be
able to resolve that difference on their S-Meter if they had a
binocular microscope focused on it.

73's
Richard Clark, KB7QHC

1749. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:48:26 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401EB79A.329C32D4@uci.edu>
Source record: 100822

Cecil Moore wrote:
>
> Jim Kelley wrote:
> >
> > Cecil Moore wrote:
> >>Nope, nothing "wrong". I just avoid making assertions when I'm
> >>not 95% certain that I am correct. Thus, most of the time, I am
> >>unresponsive. I am 95% certain that the average humongous mobile
> >>loading coil is not "physically small" and is more like a
> >>certain percentage of a helical antenna which indeed does
> >>obviously demonstrate a net current gradient.
> >
> > It's certainly true that such a coil is not 'electrically' small.
>
> And it seems to me that most of the coil models assume "physically
> small" coils which leads me to my next question. Are there no models
> for "physically large" coils? The arguments involving "physically
> small" coils are only valid for physically small coils. What about
> all the other coils in the world that are not "physically small"?

Do you mean physically small coils that are, naturally, also
electrically small. Or do you mean physically small coils that are
somehow electrically large?

73, Jim AC6XG

1750. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:48:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rpdt10ha12um98a6hl3gd97i1tudl7u941@4ax.com>
Source record: 100821

On Mon, 02 Feb 2004 14:12:54 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>doesn't even come close to answering the original
>question.

It was a piss-ant question in the first place.

1751. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 20:55:16 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401EB934.F3BD3DCB@uci.edu>
Source record: 100823

Art Unwin KB9MZ wrote:
>
> Jim What is electrically smal and compared to what ?.

I'm using the term in the same way one would use it to describe the
length of an antenna - i.e. its physical length as opposed to its
electrical length.

As for the rest: I don't know about Cecil's underpinnings. ;-)

73, Jim AC6XG

> If one can make a small loop containing a small variable inductance as one
> would make a variable capacitive form
> which is what, 1/10 of a wave length and is inserted in Cecils drawing which
> is more than a wavelength long I would consider that relatively small. Since
> the circuit generated is purely from the constituents of the original
> inductance then the relatively small loop can be inserted.
> Knowing that the radiating surface is the inductance before it was reduced
> what is to stop inserting the small loop in a black box that has dimensions
> such that ports can be directly compared.? Cecil has stated that he is is
> confident that he is correctin his assertions (and he may well be) he is
> not interested in counter proposals.
> Sort of reminds me that Bush also comes from Texas !
> We therefore must accept what Cecil says as unreservidly correct.and there
> is nothing more to be said regarding the technical underpinnings. Either
> that or attack the man himself which cannot provide resolution.
> Regards
> Art
>
> "Jim Kelley" <jwkelley@uci.edu> wrote in message
> news:401EA991.BC96A69@uci.edu...
> > >
> > >
> > > Cecil Moore wrote:
> > > >
> > > > Art Unwin KB9MZ wrote:
> > > > > Did you find something wrong with my suggestion above?
> > > >
> > > > Nope, nothing "wrong". I just avoid making assertions when I'm
> > > > not 95% certain that I am correct. Thus, most of the time, I am
> > > > unresponsive. I am 95% certain that the average humongous mobile
> > > > loading coil is not "physically small" and is more like a
> > > > certain percentage of a helical antenna which indeed does
> > > > obviously demonstrate a net current gradient.

> >
> > It's certainly true that such a coil is not 'electrically' small.
> >
> > 73, Jim AC6XG

1752. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 21:29:26 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ec200_8@corp.newsgroups.com>
Source record: 100824

Art Unwin KB9MZ wrote:
> Cecil has stated that he is is
> confident that he is correct in his assertions (and he may well be) he is
> not interested in counter proposals.

Art, I'm not interested in counter proposals to reality. Reality is just
fine the way it is. What I would really be interested in is an explanation
of how a physically large coil, like a helical antenna, can cause a phase
reversal in the absence of any ground reference, i.e. in free space.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1753. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 21:38:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ec431$1_8@corp.newsgroups.com>
Source record: 100825

Jim Kelley wrote:
> Do you mean physically small coils that are, naturally, also
> electrically small. Or do you mean physically small coils that are
> somehow electrically large?

A grain of sand is physically large when it is in your eye
but physically small under your foot. :-) Likewise, physically/
electrically small depends upon wavelength.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1754. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 21:40:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ec4a1$1_8@corp.newsgroups.com>
Source record: 100826

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>doesn't even come close to answering the original
>>question.
>
> It was a piss-ant question in the first place.

Let's see - that's either sour grapes or sweet lemons -
I can't remember which.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1755. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 21:44:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ec586_8@corp.newsgroups.com>
Source record: 100827

Jim Kelley wrote:

> Art Unwin KB9MZ wrote:
>>Jim What is electrically small and compared to what ?.
>
> I'm using the term in the same way one would use it to describe the
> length of an antenna - i.e. its physical length as opposed to its
> electrical length.
>
> As for the rest: I don't know about Cecil's underpinnings. ;-)

All I know is that every time there's a calculated or measured
current taper through a coil, according to some experts, it's
because the coil is not "physically small". :-) So where's the
model for "physically large" coils?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1756. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 21:49:46 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401EC5FA.7445E3D@uci.edu>
Source record: 100828

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > Do you mean physically small coils that are, naturally, also
> > electrically small. Or do you mean physically small coils that are
> > somehow electrically large?
>
> A grain of sand is physically large when it is in your eye
> but physically small under your foot. :-) Likewise, physically/
> electrically small depends upon wavelength.

Actually, that's not quite correct. In this context we are discussing whether something's size is small or large compared to a wavelength. Whether the wavelength is small or large compared to a grain of sand or your eye is irrelevant. :-)

73, Jim AC6XG

1757. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 21:52:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4hht101cfurjp0nh9obmn9qge42audhkut@4ax.com>
Source record: 100829

On Mon, 02 Feb 2004 15:40:40 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Richard Clark wrote:
>
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>doesn't even come close to answering the original
>>>question.
>>
>> It was a piss-ant question in the first place.
>
>Let's see - that's either sour grapes or sweet lemons -
>I can't remember which.

See? Even you can't tell the difference.

1758. Re: T Antenna for 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 21:56:19 UTC
From: Scott Gordon <sgordon@gordonsweb.net>
Message-ID: <7IzTb.35933$P%1.28433090@newssvr28.news.prodigy.com>
Source record: 100830

Mark,

Thanks for the information. How are you feeding your T and does it have any type of matching network?

Scott

"Mark Keith" <nm5k@wt.net> wrote in message news:25eb70d7.0402021134.62af5190@posting.google.com...
> "Scott Gordon" <sgordon@gordonsweb.net> wrote in message news:<jatTb.35858$P%1.28366800@newssvr28.news.prodigy.com>...
> > I seen in a recent article showing a Compact T Antenna for 160 Meters.
> >
> > Tophat is 80 ft long and the T is connected in the center and should be 40ft
> > long with a 20uH to the feedpoint then the shield to ground.
> >
> > Has anyone used one of these antennas? I use a Inverted L right now and it
> > is playing very well but the noise is S9 to 5 Over. I understand the the T
> > Antenna is a much more quiet antenna?
>
> Nope. Should be little if any difference. The only real difference
> will be an overhead null on the T, compared to no null on the L due to
> the unbalanced horizontal loading wire. The pattern of the T is much
> the same as a monopole.
> I use both here. The T is usually the best at any long distance. The
> current distribution is much better on my T than on the L. So it has
> less ground loss, and is more efficient. My T is about 40 ft tall, and
> has 4 60 ft loading wires. "120 ft across". The difference between
> using 4 top load wires and 2 top load wires seemed to be pretty small.
> MK

1759. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 22:15:35 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <b_zTb.164137$sv6.896260@attbi_s52>
Source record: 100831

Well we will have to be patient
Richard has a way to show it by virtue of the use of Eznec.
I might add he is an expert with Eznec Having studied Meterology and
microwaves. Tho I am not sure he has
recognition of this by an acredited college and may well have got it on E
bay, they have advanced degrees on most things on the net these days
probably some for Shakespeare Olde English also..
Anyway there is really nothing more to be said on this subject until Richard
comes up with the real goods on Eznec and use it where all others have
failed..
Facts, all thereal facts.
Still the thread had a good run as far as threads go as some one said and
probably akin to sweeping up the streets in Pampalona to clean the bullshit
left after the exciting run thru town. Yes some casualties among those that
run with the bulls but exciting to watch.
Best regards
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401ec200_8@corp.newsgroups.com...
> Art Unwin KB9MZ wrote:
> > Cecil has stated that he is is
> > confident that he is correct in his assertions (and he may well be) he
is
> > not interested in counter proposals.
>
> Art, I'm not interested in counter proposals to reality. Reality is just
> fine the way it is. What I would really be interested in is an explanation
> of how a physically large coil, like a helical antenna, can cause a phase
> reversal in the absence of any ground reference, i.e. in free space.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1760. Re: Folded counterpoise?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 22:18:44 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <bvmife$8rj$1@newshost.mot.com>
Source record: 100835

I think Ken is a little dramatic, but there's truth to what he says. If you have a tuner, then it can (not will) cover a lot of sins. This depends upon what you wind up with...all the stuff he mentioned.

I tuned my 40M inverted Vee on 75, at the transmitter end of about 100' of RG58, and worked the east coast from Illinois with 100W SSB. Guys have worked DX using a light bulb, gutters or a bed spring.

I will still hold that if you are planning (and I may have misunderstood) to set this up so that: one "radial" runs out the cable, connects to another wire in the cable, which then runs back up the cable near the base of the antenna where it connects to another wire in the cable to go back out the cable... this should be no better than the first run out the cable.

If, on the other hand, you are going to zig-zag one of the radials to a moderate degree as it always is going further from the antenna, then this has some merit in fitting the radials in a smaller space. However, if the length occupied by the Zig-zagged radial is say, 50% the full length of the radial, you won't have near the performance. I think the difference is much more than two decimal places, but 2, 6 or even 9 dB is no big deal for HF. It is a difference, but many poor antennas are usable. There is no cliff of which you will fall off as you compromise the antenna

How much is "moderate"? What is "near the performance"? What if the space it 75% the full length. yadda, yadda. This is a complex situation and, unfortunately, there is no simple answer--- other than:: put something up and see what happens.

General things which are changed by each other and the ground...

More radials is better.

It is "nice" to have radials 1/4 long, running straight away from the antenna.

You can bend them - the more you do the lower the performance...probably, but then how you gonna' tell...?

If you have longer radials, you may not need the shorter ones.

Radials have capacitance to ground changing some of the above.

The ground has loss and can change.

A vertical is sorta' like a dipole where one half it sticking straight up in the air and the other half is "opened up" and spread out, around, radially on the ground. This spreading-out changes things quite a bit, but is a good starting point for a mental model. You can't take half of a

dipole and fold it up indiscriminately and still have the same performance.
As you start to do the folding, the performance will change bit by bit.
When the half is folded up to 1/3 its original length, it'll be very
different.

--
Steve N, K,9;d, c. i My email has no u's.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:jobt10dfpovp4keuncicq9cfa32rh17oc3@4ax.com...
> On Mon, 02 Feb 2004 19:25:48 GMT, Ken <cprstn54zz@att.net> wrote:
>
> >It was anticipated that
> >the ribbon would run right up to the tuner. I could drop the 10M
> >conductor from the ribbon (using a separate radial for that) and put
> >the rest of the bands on ribbon cable that was 8.4 ft away. Or I
> >could put 10M, 12M, 17M and 20M on their own 4-conductor radial, 16.6
> >ft long, and start the ribbon cable for 30, 40/15, 80 and 160/60 at
> >the end of a 16.6 ft wire (which could even be a fifth conductor on
> >the high-band segment).
>
> Hi Ken,
>
> Ultimately if you are going to use a tuner, what does it matter?
>
> If the radials lie along the ground, what does it matter? The
> proximity of ground is going to detune them anyway unless you get some
> serious elevation (80/160M?) for the feedpoint. The proximity of
> ground is going to kill the Q to the point of no serious tuning issue.
> The proximity of ground is not going to be masked by onesy-twosy
> radials. When you've already lost 6dB to ground, who's going to
> notice another quarter dB lost to the tuner?
>
> Run them zig-zag? What does it matter? Such conflicting advice is
> obscured by results out two decimal places - your contact wouldn't be
> able to resolve that difference on their S-Meter if they had a
> binocular microscope focused on it.
>
> 73's
> Richard Clark, KB7QHC

1761. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 22:24:44 UTC
From: Attila The Hun <Attila@door.net>
Message-ID: <101tjhi7ntk8s14@corp.supernews.com>
Source record: 100832
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Bob McConnell wrote:

> I am curious about one thing. In 1977 I took the FCC test series for
> the commercial phone license. I breezed through third class and passed
> the second class elements, but missed first class by 6 points. If I
> had turned around and taken the amateur tests at that time, without
> the code requirement, what license would I have ended up with?
>
> Bob McConnell
> N2SPP
>

I received my Novice license in late 1974, and worked my way up the amateur ranks to Advanced. I then moved over to the commercial exams, and worked up to First Class. I may be wrong, but I don't think you could get any class of amateur license, without a code test, back in those days.

1762. FS: ANTENNA PACKAGE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 22:35:19 UTC
From: n2ion@aol.com
Message-ID: <20040202173519.13670.00000745@mb-m27.aol.com>
Source record: 100833

ANTENNA PACKAGE FOR SALE

1-KLM 2M-20LBX(20 ELEMENTS ON 2M,

1-KLM 220-22LBX(22 ELEMENTS ON 220)

4-KLM 432-30LBX(30 ELEMENTS X4 ON UHF)

4-KLM 1.2-44LBX(44 ELEMENTS X4 ON 1.2GHZ)

1-KLM 17M 3 EL BEAM(3 ELEMENTS ON 17M)

ASKING $1,300 PLUS SHIPPING(PREFER PICKUP)FOR ENTIRE PACKAGE

1763. Re: Noise - MFJ-1265?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 22:37:33 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <t-mdnVCswv6yTIPdRVn-hw@comcast.com>
Source record: 100834

Did anybody close by get a new plasma TV. 17 KHz is way to low for a switching power supply, and slightly high for NTSC TV, but could be some kind of ED TV or computer monitor.

Tam/WB2TT
"

1764. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-02 23:14:22 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <401ED9CE.53E3539A@uci.edu>
Source record: 100836

Cecil Moore wrote:
> All I know is that every time there's a calculated or measured
> current taper through a coil, according to some experts, it's
> because the coil is not "physically small". :-) So where's the
> model for "physically large" coils?

I've also noted the use of that qualifier on several occasions in the discussion. There are apparently effects which become measureable as the inductors physical size begins to approach significant fractions of a wavelength. These affects appear to relate more to the impedance and radiation pattern of the antenna - first order affects as far as most here are concerned to be sure. On the other hand, if the coil is not physically small, then its probably not electrically small either. In other words it may comprise a significant fraction of the electrical length of the antenna. For a given inductance, a longer coil will require more turns than a shorter coil. The more turns, the greater the length of wire, and the greater the phase delay through the coil. A coil with shorter physical length, would require less wire and fewer turns to give the same inductance, and would give a shorter phase delay.

73, Jim AC6XG

1765. Re: Are we a Ham RADIO NG, or a soap-box ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 00:00:33 UTC
From: kh2d@my-deja.com
Message-ID: <401ee336.602037724@newsgroups.bellsouth.net>
Source record: 100837
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

On 2 Feb 2004 11:03:04 -0800, lanashubby@lycos.com (Stephen M.H.
Lawrence) wrote:

>Read the headers, and, if you don't think you'll like the topic....
>
>DON'T READ IT!!!

Bullshit.

The reason UseLessNet has 2 million different newsgroups is so that
people can discuss (and read) things that pertain to the subject of
that particular newsgroup. U.S. politics have nothing to do with ham
radio, and the guys who are 'discussing' it crosspost to as many ham
groups as they can find for the sole purpose of pissing people off.

Very common. They start a discussion in a particular group, and then
some pecker head, for the fun of it, adds 9 other groups to a reply,
and all the other pecker heads think it's funny so they do the same.

Cecil, you've spent 12 hours a day for the last ten years arguing with
the same people on UseLessNet, so you know damn good and well how to
post a message to a particular group - this crap about "I just
answered somebody else" is also bullshit.

73, Jim KH2D

1766. Re: Are we a Ham RADIO NG, or a soap-box ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 00:10:36 UTC
From: N8KDV <n8kdv@nospam.iserv.net>
Message-ID: <401EE6FC.1364A228@nospam.iserv.net>
Source record: 100838
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

kh2d@my-deja.com wrote:

> On 2 Feb 2004 11:03:04 -0800, lanashubby@lycos.com (Stephen M.H.
> Lawrence) wrote:
>
> >Read the headers, and, if you don't think you'll like the topic....
> >
> >DON'T READ IT!!!
>
> Bullshit.
>
> The reason UseLessNet has 2 million different newsgroups is so that
> people can discuss (and read) things that pertain to the subject of
> that particular newsgroup. U.S. politics have nothing to do with ham
> radio, and the guys who are 'discussing' it crosspost to as many ham
> groups as they can find for the sole purpose of pissing people off.
>
> Very common. They start a discussion in a particular group, and then
> some pecker head, for the fun of it, adds 9 other groups to a reply,
> and all the other pecker heads think it's funny so they do the same.
>
> Cecil, you've spent 12 hours a day for the last ten years arguing with
> the same people on UseLessNet, so you know damn good and well how to
> post a message to a particular group - this crap about "I just
> answered somebody else" is also bullshit.
>
> 73, Jim KH2D

Then why are you yourself posting to 5 different groups?

1767. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 00:17:22 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvmpah$air5$1@news3.infoave.net>
Source record: 100839
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

When I took my test in 1957, the FCC guy testing , told me the most difficult test was the amateur advanced.

I took the General Ham and all commercial elements through 1st class and RADAR endorsement. At that time, there was a time requirement between the amateur licenses, ergo I was not eligible to take the advanced or extra.

Back then You both sent and received Morse, and a solid one minute out of three was the passing mark. The test itself consisted of drawing schematics, supplying missing components to a schematic, etc. Unlike today's NO CODE, No ELECTRONICS exams.

The fact that they were tough to pass, marked passage into a select group called HAMS. After waiting about five weeks I finally received that magical piece of paper that allowed me to contact other members of the fraternity.

My first contact was on 3885 Kcs, checking into the Graveyard Net, finally getting to talk to the mystical voices I had listened to on my Hammurland HQ-129X.

Among the biggest thrills of my life.

"Attila The Hun" <Attila@door.net> wrote in message
news:101tjhi7ntk8s14@corp.supernews.com...
> Bob McConnell wrote:
>
> > I am curious about one thing. In 1977 I took the FCC test series for
> > the commercial phone license. I breezed through third class and passed
> > the second class elements, but missed first class by 6 points. If I
> > had turned around and taken the amateur tests at that time, without
> > the code requirement, what license would I have ended up with?
> >
> > Bob McConnell
> > N2SPP
> >
>
> I received my Novice license in late 1974, and worked my way up the
> amateur ranks to Advanced. I then moved over to the commercial exams,
> and worked up to First Class. I may be wrong, but I don't think you
> could get any class of amateur license, without a code test, back in
> those days.

1768. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 01:03:16 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ef41d_2@corp.newsgroups.com>
Source record: 100840

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Let's see - that's either sour grapes or sweet lemons -
>>I can't remember which.
>
> See? Even you can't tell the difference.

It depends upon whether you ate the lemons or not. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1769. Re: Are we a Ham RADIO NG, or a soap-box ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 01:12:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ef635_2@corp.newsgroups.com>
Source record: 100841
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

kh2d@my-deja.com wrote:
> Cecil, you've spent 12 hours a day for the last ten years arguing with
> the same people on UseLessNet, ...

Probably where these cataracts came from. In order to have more space on my screen, I have closed the To/From/Subject on the Netscape status bar so I really have no idea where my replies are going.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1770. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 01:14:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401ef6ac_2@corp.newsgroups.com>
Source record: 100842
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

W4JLE wrote:
> When I took my test in 1957, the FCC guy testing , told me the most
> difficult test was the amateur advanced.

Heh, heh, good thing I was drunk when I took mine. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1771. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 01:18:16 UTC
From: Minnie Bannister <GoonButNotForgotten@myob.net>
Message-ID: <101ttmm1s9s18cd@corp.supernews.com>
Source record: 100843
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

And in some European countries a decade or three back (I don't know if it's still the same), the tests for a driver's license had questions about mechanical theory (e.g., what is actually happening under the hood when you put your foot on the clutch?) and practical tests (e.g., changing a wheel).

Perhaps today's US driver's licenses are worthless too, and perhaps the people who get them aren't really DRIVERS. Perhaps the only "real DRIVERS" today are the people who pass the tests for membership of the Institute of Advanced Motorists (which existed in Britain when I was growing up, maybe still does) or its equivalent in other countries.

Alan AB2OS

On 02/02/04 07:17 pm W4JLE put fingers to keyboard and launched the following message into cyberspace:

> When I took my test in 1957, the FCC guy testing , told me the most
> difficult test was the amateur advanced.
>
> I took the General Ham and all commercial elements through 1st class and
> RADAR endorsement. At that time, there was a time requirement between the
> amateur licenses, ergo I was not eligible to take the advanced or extra.
>
> Back then You both sent and received Morse, and a solid one minute out of
> three was the passing mark. The test itself consisted of drawing schematics,
> supplying missing components to a schematic, etc. Unlike today's NO CODE, No
> ELECTRONICS exams.
>
> The fact that they were tough to pass, marked passage into a select group
> called HAMS. After waiting about five weeks I finally received that magical
> piece of paper that allowed me to contact other members of the fraternity.

1772. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 01:31:05 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <tRCTb.212778$na.348065@attbi_s04>
Source record: 100844

I can not believe what you are saying!

This thread is initiated by Wes not Yuri
I have not read anywhere that Wes, and Roy and Yuri supports your position that Eznec can handle lumped loads in a real world situation. In fact I seem to remember that Yuri in the past stated that computor programs proffered by Tom who was using Eznec, did not reflect reality and was going to prove same with a series of experiments in the near future. Not only that Yuri has been off shore for most of this thread and has participated very little, prior to that he was under the weather.
Now we come to the other person who you say supports you., Roy Roy has not participated in this thread started by Wes so where is that statement that his program Eznec
can handle all the requirements placed on it by lumped loads. After you dissed him last week on another thread I can hardly believe he communicated privately with you regarding his program?
Now we come to Wes...Wes is the originator of this thread which was a debate based on his modelling submission
I do not recall him saying anything that supports your assertion. In fact when I looked at what he proffered on this thread I seem to remember that it reflected a radiating member of diameter equal to a real world coil into which was inserted a point, lumped load that was dimensionaless.
I am sure he had good reason to do it that way but it certainly does not reflect a real world situation that Yuri,
Cecil and I was looking for. Tho I must state firmly that
only Wes 'walked the walk' in an effort to resolve a problem and deserves the thanks of all in trying to resolve it in one of many ways

So I do not believe what you are saying and you are playing around with the word "truth"

So now you have exposed yourself again for what you are, unless you can find in this thread or show that the associations with your statement regarding Eznec is true per private conversation or otherwise.
I would be very curious if Roy supported your statement regarding Eznec and lumped loads, as would many of those who purchased his program which provided so many insights to antenna design. In fact I seem to remember a very clear statement by Roy saying his programs had no variable abilities which would be a requirement for real world analysis, however, I will leave him to speak for himself as his knoweledge regarding antennas and modeling is renown world wide.
I have also showed all the posts that you made on this thread
None of these provided facts , only opinions of yours that you have on other people, sarcastic in the main.
Now I see that Cecil has brought up the subject directly with you and I urge

every body to read them to ascertain what facts you are offering in return.or show how you avoid the issue as you have done many times in the past.
My guess it will be the smear and run tactic that you off times use.
So Richard ,gather the supporters you have specifically quoted so they can vouch for your assertions made with regard to Eznec and lumped loads to prove you are not the liar that your posting appear to suggest.
Infact, if either Wes or Roy confirmes your "baloney" position statement I will supply a public apology to you since both of them hold my respect with regard to computor modeling. I still have vivid memories of where you argued for ages regarding contact fidelity
where you pretty much said that contact pressure was everything and 'wipe' was nothing which is just laughable in industry but not apparently in the expert teaching of meterology in which you claim high education ..
Well this time all posters will see what you are unless you can show otherwise.. You should never put people in a situation that they must accept what you say without prior permission. You have forced a burden upon them.by speaking for them knowing that they made no such statement.and have thus caused embarasment to them.

Art Unwin KB9MZ....XG

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:np9t105t87iftcf4l3lvj9c7mk5hs3ajlr@4ax.com...
> On 1 Feb 2004 20:21:26 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
>
> > how Eznec can be manipulated
> >into tackling the problem of replacing a non dimensional
> >inductance to one that has physical dimensions
> >so that all pertinent questions can be answered
>
> Art,
>
> It is clear that you write far more than you read. I did this already
> in a posting, in this thread:
> >>This may be found at:
> >>http://www.k3bu.us/loadingcoils.htm
> to which you responded:
> >Obscure posting
> So clearly, even with the information offered, you lack the capacity
> to follow the rather simple instructions offered by
> 1.) Yuri,
> 2.) Roy,
> 3.) Myself
> that must've occupied all of two sentences.
>
> >So to prove that it is baloney step forward
> >with the facts which up to now you have not divulged.
>
> Art seeing it was YOUR claim, it is clearly baloney barring any

> demonstration from you (we should live so long) of its accuracy,
> irregardless of how
> 1.) Yuri,
> 2.) Roy,
> 3.) Myself
> offer solutions.
>
> What is more to the issue, is that it doesn't amount to 1dB
> difference, a fact that is clearly upheld by work outside of EZNEC by
> Wes.
> www.qsl.net/n7ws
> to which you responded:
> >>Nothing on that post
>
> So there you have it. Two sources, 4 individuals' work, and you have
> nothing to offer - still.
>
> You can at least let us know if you saw your shadow. If you cannot
> muster the facts to answer this, I see no reason to respond to your
> whining.
>
> 73's
> Richard Clark, KB7QHC

1773. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 01:50:43 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvmupv$all6$1@news3.infoave.net>
Source record: 100845
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

You miss the point completely, there was pride in becoming a ham, simply because it was difficult. Once obtained, one behaved as a person worthy of being called a ham.

The worst behavior I remember back then was W2OY who used to call "CQ No kids, no lids, no drugstore cowboys..." Unlike the profanity of the bands today.

With the new age thinking , that finds achievement unfair to those that have not achieved, we have lowered the bar so those who were incapable of competing can be included as well.

First it was "why should I learn the code it is only an obstacle to my desires", the point is all endevors in life have a price of admission, if your not willing to pay, you don't get in the show. At least thats the way it used to be, today if I whine enough about fairness someone will give it to me.

Where does it end? I want to be a brain surgeon, I just don't want to spend time learning all that medical stuff, it's just not FAIR... Would you want me as your doctor?

"Minnie Bannister" <GoonButNotForgotten@myob.net> wrote in message news:101ttmm1s9s18cd@corp.supernews.com...
> And in some European countries a decade or three back (I don't know if
> it's still the same), the tests for a driver's license had questions
> about mechanical theory (e.g., what is actually happening under the hood

1774. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 02:30:10 UTC
From: JOE <HARMON14@hotmail.com>
Message-ID: <bvn2bt$u552r$1@ID-133475.news.uni-berlin.de>
Source record: 100847
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

What other sorts of antennas are there exactly? Audio? Light?
Tactile?

Thought they ALL were RF in nature....

could be wrong....

JOE

"erdem" <ultanir_99@yahoo.com> wrote in message
news:c403e21f.0402020820.16e7c4a2@posting.google.com...
> Hi all,
>
> I am looking for rf antennas that could fit into a 1" by 1" plastic
> case, operating frequency >500Mhz. They could also be pcb antennas.
> Could you suggest me some places to lookfor?
>
> Thanks,
> Adam

1775. Re: Are we a Ham RADIO NG, or a soap-box ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 02:32:39 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-0A37B0.18323802022004@news.sf.sbcglobal.net>
Source record: 100846
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc

In article <401ef635_2@corp.newsgroups.com>,
Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:

> kh2d@my-deja.com wrote:
> > Cecil, you've spent 12 hours a day for the last ten years arguing
> > with the same people on UseLessNet, ...
>
> Probably where these cataracts came from. In order to have more space
> on my screen, I have closed the To/From/Subject on the Netscape
> status bar so I really have no idea where my replies are going.

Maybe you need to expand it enough to see the newsgroups line.

Newsgroups:
rec.radio.amateur.antenna, rec.radio.amateur.digital.misc,
rec.radio.amateur.dx, rec.radio.amateur.misc, rec.radio.shortwave

Lately some moron has started many cross posted threads so people need
to start paying more attention to the headers and if you don't you make
the decision to look stupid. The cross posting dumbbells will soon find
nobody reads them anymore.

Please enough of the code/no code, ARRL and other threads that only
amateurs would care about. Please at least drop RRS from the newsgroup
list like I did. Thanks in advance.

--
Telamon
Ventura, California

1776. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 03:09:14 UTC
From: Bob McConnell <rmcconne@NOSPAM.lightlink.com>
Message-ID: <h04u10t1tgfip63sune6ao0jk7me25o748@4ax.com>
Source record: 100848
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

On Mon, 02 Feb 2004 16:24:44 -0600, Attila The Hun <Attila@door.net>
wrote:

>Bob McConnell wrote:
>
>> I am curious about one thing. In 1977 I took the FCC test series for
>> the commercial phone license. I breezed through third class and passed
>> the second class elements, but missed first class by 6 points. If I
>> had turned around and taken the amateur tests at that time, without
>> the code requirement, what license would I have ended up with?
>>
>> Bob McConnell
>> N2SPP
>>
>
>I received my Novice license in late 1974, and worked my way up the
>amateur ranks to Advanced. I then moved over to the commercial exams,
>and worked up to First Class. I may be wrong, but I don't think you
>could get any class of amateur license, without a code test, back in
>those days.

That is correct. The first codeless license (Technician) was
introduced Feb 1991. But how did the written portions compare between
the amateur and commercial licenses?

Bob McConnell
N2SPP

1777. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 03:09:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a04u10h9im9sa4asq95usqsk3ct0q4av2d@4ax.com>
Source record: 100849

On Tue, 03 Feb 2004 01:31:05 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:
>I have not read anywhere that Wes, and Roy and Yuri

That has been for your lack of reading. Thus I keep this to one line.

1778. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 03:39:42 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <2KETb.165988$5V2.850701@attbi_s53>
Source record: 100850

Then you are what you have shown your self to be

And all can now see what you really are
and can judge for themselves
And they can also see how you avoided all things true
when you refused to face the truth with Cecil
and found a way to run away.
Now show us how you can run away from yourself and your concience by hiding
behind your own shadow.
I am done with you because you represent nothing

Art Unwin KB9MZ...XG

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:a04u10h9im9sa4asq95usqsk3ct0q4av2d@4ax.com...
> On Tue, 03 Feb 2004 01:31:05 GMT, " Art Unwin KB9MZ"
> <aunwin@insightbb.com> wrote:
> >I have not read anywhere that Wes, and Roy and Yuri
>
> That has been for your lack of reading. Thus I keep this to one line.

1779. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 04:21:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401f2282_2@corp.newsgroups.com>
Source record: 100851
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

JOE wrote:
> What other sorts of antennas are there exactly? Audio? Light?
> Tactile? Thought they ALL were RF in nature.... could be wrong....

Yep, you are wrong. Insects had antenna millions of years before man
ever walked the earth. In fact, the word "antenna" comes directly
from the insect world and was adopted for RF antennas, because they
reminded someone of insect antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1780. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 04:28:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401f2451$1_2@corp.newsgroups.com>
Source record: 100852

Wes Stewart wrote:
> I downloaded a couple of them, but I have a question. I opened them
> using MultiNEC, which reads all of the popular modeling program file
> formats. The loads did not import, but when I opened the same files
> in EZNEC 3 I saw them as R+jX loads with only an 'X' value.

You can put in any R and XL value, Wes. The phase of the current will
not change. The magnitude decreases and the phase stays the same.

> I learned from Dan, AC6LA, the author of MultiNEC, that some early
> EZNEC versions save all loads as Laplace and he doesn't read those
> into MultiNEC. Opening the files in EZNEC 3 and then just resaving
> them makes the import into MultiNEC work okay, but this makes me
> suspect that using your earlier files in my later version might be a
> problem. The documentaion says otherwise though, but to be sure, what
> are the actual load parameters.

Well, your Laplace files won't run on my EZNEC version 2.0. They all
come up as zeros. So I don't know what loads you used either.

> I don't want to comment further until I know exactly what you are
> using.

You can vary R and XL values from zero to infinity. The phase of the
current never changes. I tried values from 1+j300 to 1000+j300000
and it only affected the magnitude, not the phase.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1781. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 04:49:11 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvn985$arlp$1@news3.infoave.net>
Source record: 100853
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

That certainly would explain why the plural of the two different types are
different.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401f2282_2@corp.newsgroups.com...
> JOE wrote:
> > What other sorts of antennas are there exactly? Audio? Light?
> > Tactile? Thought they ALL were RF in nature.... could be wrong....
>
> Yep, you are wrong. Insects had antenna millions of years before man
> ever walked the earth. In fact, the word "antenna" comes directly
> from the insect world and was adopted for RF antennas, because they
> reminded someone of insect antenna.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1782. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 05:00:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bjau101r3tk54i9gabb41iqkea26dd8oo3@4ax.com>
Source record: 100854

On Tue, 03 Feb 2004 03:39:42 GMT, " Art Unwin KB9MZ"
<aunwin@insightbb.com> wrote:

>Then you are what you have shown your self to be
>
>And all can now see what you really are
>and can judge for themselves
>And they can also see how you avoided all things true
>when you refused to face the truth with Cecil
>and found a way to run away.
>Now show us how you can run away from yourself and your concience by hiding
>behind your own shadow.
>I am done with you because you represent nothing
>
>Art Unwin KB9MZ...XG
>
Ah! Art,

You are a po8 and don't know8 :-)

1783. Re: FS: ANTENNA PACKAGE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 05:37:47 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <401F33AB.22BE7E6C@cwis.net>
Source record: 100855

N2ION,
I wonder, is this some of the things donated to
your club?
'Doc

1784. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 06:07:17 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <bvnb4e$4v4$1@news1.kornet.net>
Source record: 100856
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
news:bvn985$arlp$1@news3.infoave.net...
> That certainly would explain why the plural of the two different types are
> different.

I believe that both plurals (antennas and antennae) are correct. One is
simply the Latin plural, and the other the Anglicized plural.

1785. Re: FS: ANTENNA PACKAGE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 06:09:47 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvne03$at8a$1@news3.infoave.net>
Source record: 100857

The person who donated the stuff said it also included hardline and
rotors... (see rec.radio.swap)

"'Doc" <w5lz@cwis.net> wrote in message news:401F33AB.22BE7E6C@cwis.net...
>
>
> N2ION,
> I wonder, is this some of the things donated to
> your club?
> 'Doc

1786. Re: Balun design / SWR ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 06:28:03 UTC
From: "Wolfgang K. Meister" <no.mail@please.com>
Message-ID: <bqfu10lr0rdc5vjdusgtdse0dcdepvf3o7@4ax.com>
Source record: 100858

On 2 Feb 2004 10:07:11 -0800, k7itm@aol.com (Tom Bruhns) wrote:

>You didn't mention the specific frequency, ...

Tom - I was testing between 3 (7) and 30 Mhz

73s de Wolfgang

1787. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 06:28:48 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvnf2u$atcs$1@news3.infoave.net>
Source record: 100859
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Nope, antennae only applies to bugs, the devices used to receive radio waves
are antennas.

"Brenda Ann" <brendad@shinbiro.com> wrote in message
news:bvnb4e$4v4$1@news1.kornet.net...
>
> "W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
> news:bvn985$arlp$1@news3.infoave.net...
> > That certainly would explain why the plural of the two different types
are
> > different.
>
> I believe that both plurals (antennas and antennae) are correct. One is
> simply the Latin plural, and the other the Anglicized plural.
>
>
>

1788. Re: T Antenna for 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 06:46:18 UTC
From: k3ky@erols.com
Message-ID: <401f3fa8.493318985@news.erols.com>
Source record: 100860

On Mon, 02 Feb 2004 14:30:39 GMT, "Scott Gordon"
<sgordon@gordonsweb.net> wrote:

>I seen in a recent article showing a Compact T Antenna for 160 Meters.
>
>Tophat is 80 ft long and the T is connected in the center and should be 40ft
>long with a 20uH to the feedpoint then the shield to ground.
>
>Has anyone used one of these antennas? I use a Inverted L right now and it
>is playing very well but the noise is S9 to 5 Over. I understand the the T
>Antenna is a much more quiet antenna?
>
>Thanks
>Scott
>
A classic vertical antenna should indeed have a pretty deep overhead
null. Perhaps also your T antenna might have this null- it probably
depends on how symmetrical you can make the antenna. I can think
of scenarios where the difference between an inverted L and a T
antenna should be minimal, namely when the predominate noise source
is man-made and local. OTOH your T antenna might discriminate better
against atmospheric noise that originates fairly 'close by', but is
beyond ground wave range. Certainly if your T has a good overhead
null, there is one kind of noise that it will reject much better than
your inverted L, namely the very loud close-in signals from your
competition in a big pileup, and especially if the DX is working
everyone transceive instead of QSX up/down. The DX is often
puny weak and the pile more like 40+dB over S9. If your ham
neighbor 50-100 miles up the road from you simply has to have
the DX you are calling, his high-angle NVIS signal may be deafening
on an inverted L but manageable on a vertical having a good
overhead null. BTW the foregoing discussion assumes you are
using your antenna to receive as well as to transmit. It certainly
sounds that way from the way you posed your question.
73, David K3KY

P.S. An interesting artifact of bobtail/ half square arrays is that
often the ham who has just put one up becomes worried that the
antenna is not working. The band sounds too quiet at first. But
upon tuning around, he finds that there are good signals across
the band standing out well from the background. Here we see
a double treat in effect- good overhead null plus the nice, deep
end nulls off the ends in line with the horizontal wire. It is a
striking effect which I have heard myself at this QTH. Just
a thought...

1789. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 07:36:19 UTC
From: Helmut <Helmut@Stroeml.com>
Message-ID: <bvnj1imoh00$1@news.t-online.com>
Source record: 100861
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Hello Alan and group,

"Minnie Bannister" <GoonButNotForgotten@myob.net> schrieb im Newsbeitrag news:101ttmm1s9s18cd@corp.supernews.com...
> And in some European countries a decade or three back (I don't know if
> it's still the same), the tests for a driver's license had questions
> about mechanical theory (e.g., what is actually happening under the hood
> when you put your foot on the clutch?)

This is still going this way. You need to have 15 hours theoretical education and 20 hours driving education under supervision of a driving instructor. Costs you about 1000.- Euros, about 1250 US $. You have to do it with a driving school to securely pass the exam. But the DL then is valid livelong.

The only thing they changed is the oral test. They took away most of it and changed it to a standardized computer test.

> and practical tests (e.g. changing a wheel).

They discontinued this, but they teach you how to change a wheel and how to mount snowchains whilst in the practice-hours with your driving instructor.

> Perhaps today's US driver's licenses are worthless too, and perhaps the
> people who get them aren't really DRIVERS.

I know the difference, I hold a valid California DL for cars, trucks and motorbikes

> Perhaps the only "real
> DRIVERS" today are the people who pass the tests for membership of the
> Institute of Advanced Motorists (which existed in Britain when I was
> growing up, maybe still does) or its equivalent in other countries.
>
> Alan AB2OS

This was kind of out of topic. Concerning the amateur license, the test were oral and written, the full nine miles through all the technical and operational questions, for both the CEPT 2 and CEPT 1 licenses. The only difference in testing for HF privileges was the CW test, where you had to send and receive. At my time in the late 80's 13wpm (60 signs per minute), and lateley they dropped to 25 signs per minute, which equals 5 wpm. The test is still held at the Authorities QTH in the state capitals. After the recent workaround of the requirements after the WRC 2003 in Geneva, You are not requested to make the CW test. But you can do it voluntary after seperate application, and as long as the authority will be able to supply CW

capable Examiners

Best regards and 73
de OE8SOQ
Helmut

1790. Re: Are we a Ham RADIO NG, or a soap-box ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 08:18:03 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <ee137ed4.0402030018.5169cf96@posting.google.com>
Source record: 100862
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

calling cb, Calling CB. CALLING CB !

a trolling we will go,

A Trolling We will Go.

A TROLLING WE WILL GO !

CB [N5PVL],

FIRST - I Guess the Question is . . .
IS this NewsGroup a "HAM" or "Shortwave" NewsGroup ?

Lets Start of the Top - Under the Major NewsGroup Heading: REC : RADIO

Are Nine (9) Categories including both "Amateur" (HAM) and "Shortwave"

PLEASE NOTE: "Amateur" (HAM): and "Shortwave" are each 'separate'
Categories.

Under the NewsGroup "Category" Rec : Radio : Amateur [HAM] =
'rec.radio.amateur' there are Eleven(11) Sub-Categoies:
1. rec.radio.amateur.antenna
2. rec.radio.amateur.misc
3. rec.radio.amateur.boatanchors
4. rec.radio.amateur.packet
5. rec.radio.amateur.digital.*
Sub-Sub-Group 5A. rec.radio.amateur.digital.misc
6. rec.radio.amateur.policy
7. rec.radio.amateur.dx
8. rec.radio.amateur.space
9. rec.radio.amateur.equipment
10. rec.radio.amateur.swap
11. rec.radio.amateur.homebrew

TBL: Seems like the HAMs have their own Category and Eleven
Sub-Categories plus One Sub-Sub-Category.

And the 'lowly' Shortwave Listeners ONLY have One Category
"Shortwave".
{ I Say 'lowly' Shortwave Listerners SWLs because SWLs are
"second class" Citizens to the Exhalted Amateurs [HAMs] }

SECOND - Getting back to the Topic of "OFF-TOPIC" since you can
"Hear Everything on Shortwave": Then Nothing Is 'Off-Topic'.
Here on the "Rec:Readio:Shortwave" Newsgroup.

FWIW: All Amateurs [HAMs] please 'check' your "Call-Signs"
at your KeyBoards before posting a Message or Reply to this
'exclusive' {The One and Only} "SHORTWAVE" NewsGroup :o)

TBL: REC:RADIO:SHORTWAVE = No Call Sign Required [.]

jhiu ~ RHF
= = = Just HAMming It Up :o)
.
.
= = = "Charles Brabham" <n5pvl@sbcglobal.net>
= = = wrote in message news:<cwsTb.327$CO.219@newssvr23.news.prodigy.com>...
> Get this political crap off of all of these ham newsgroups. Who is doing
> this, some anti-ham types, SPAMMING the ham newsgroups with brainless,
> off-topic political crap?
>
> Charles Brabham, N5PVL
>
.

1791. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 08:49:16 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <3kJTb.12985$fD.10893@fed1read02>
Source record: 100863
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Bill Turner" <noway@nohow.com> wrote in message
news:ircs10la68unc8ufplbigqetogv9t0norv@4ax.com...
> On Mon, 2 Feb 2004 02:45:30 -0800, "Ed Price" <edprice@cox.net> wrote:
>
> >NO, "Democratic" is NOT correct, despite vast quantities of double-speak
at
> >http://www.democrats.org/about/history.html . It's their right to call
> >themselves what they wish, but, if you examine the language, you will see
> >that "democratic" is an adjective. An object (that is, a person) cannot
be
> >an adjective.
> >
> >It's a group of people, thus a party. And if they call themselves
democrats,
> >then it is a party of democrats. But it certainly is not proven to be a
> >democratic party. Accurate thought requires accuracy in language. It's a
> >point probably long lost, as our voters can't even punch a hole in a card
> >with reasonable accuracy.
>
> ____
>
> Sorry pal, "Democratic" as in "Democratic Party" is indeed correct.
> Democratic is the adjective, Party is the noun. The former modifies the
> latter, whether you believe the correctness thereof or not.
>
> Perhaps you were absent from school that day?
>
> --
> Bill, W6WRT
>

Nope! Have seen the Democrats in action (Chicago), and they sure aren't
democratic.

Perhaps you went to one of their quality schools?

Ed
wb6wsn

1792. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 09:00:54 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <NpJTb.12986$fD.6530@fed1read02>
Source record: 100864
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Bill Turner" <noway@nohow.com> wrote in message
news:sacs10hkmog602205cjmqtsvm7n07uitgh@4ax.com...
> On Sun, 1 Feb 2004 23:47:40 -0800, "Ed Price" <edprice@cox.net> wrote:
>
> >A democracy ceases to exist when the public vests their voting privileges
in
> >representatives. The form is then a Republic. See #2 above!
>
> ____
>
> Your statement is incorrect. There are at least three possible forms of
> democracy:
>
> 1. Direct democracy as practiced in ancient Greece and currently in
> Vermont town meetings (and possibly elsewhere).
>
> 2. A republic as practiced in the USA.
>
> 3. An elected head of state in a non-republic government, commonly
> practiced in small tribal societies.
>
> Check your dictionary and you'll find these definitions are correct.
> The key to whether a government is or is not a democracy is this: Do
> the citizens/voters have the ultimate power or not? In other words, can
> the people vote the rascals out? If the answer is yes, you have a
> democracy.
>
> --
> Bill, W6WRT
>

Very inventive, Bill. I'll bet we can find dozens of forms of sort-of,
almost, enhanced and modified democracies. So at just what point, as the
people give up their direct control of each issue, does a democracy ever
become something else? And why do you feel that "something else" is still a
democracy?

Finally, if the people of the democracy are all rascals, how do they vote
the rascals out?

Ed
wb6wsn

1793. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 12:49:11 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <bNMTb.10975$uM2.3116@newsread1.news.pas.earthlink.net>
Source record: 100865

"Massi" <msignorini@calearotlc.com> wrote in message
news:bvlp09jrf1@fata.cs.interbusiness.it...
> > Isn't waveguide kind of big at 13.56 MHz?
> >
> > John
> >
>
> forgive me, but I don't understand what you mean.
> Massimo
>

Well, you said:

"VSWR COPLANAR WAVEGUIDE 50 OHM
13.56 MHz => 1.0250
1 GHz => 1.1698
3 GHz => 1.3500"

Maybe I don't understand coplanar waveguide, but I thought it would have to be really big to fit 13.56 MHz inside.

John

1794. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 13:50:33 UTC
From: ultanir_99@yahoo.com
Message-ID: <c403e21f.0402030550.f92ac8d@posting.google.com>
Source record: 100866
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Actually I am not trying to design antennas (>500Mhz to 1Ghz- I guess
this gives you information about what sort they are), I am trying to
buy them on a pcb or small chips that could be mounted on a PCB.

Thanks,
Adam

"JOE" <HARMON14@hotmail.com> wrote in message
news:<bvn2bt$u552r$1@ID-133475.news.uni-berlin.de>...
> What other sorts of antennas are there exactly? Audio? Light?
> Tactile?
>
> Thought they ALL were RF in nature....
>
> could be wrong....
>
> JOE
>
>
> "erdem" <ultanir_99@yahoo.com> wrote in message
> news:c403e21f.0402020820.16e7c4a2@posting.google.com...
> > Hi all,
> >
> > I am looking for rf antennas that could fit into a 1" by 1" plastic
> > case, operating frequency >500Mhz. They could also be pcb antennas.
> > Could you suggest me some places to lookfor?
> >
> > Thanks,
> > Adam

1795. NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 14:37:38 UTC
From: 5b4az@qsl.net
Message-ID: <e637e579.0402030637.6941da71@posting.google.com>
Source record: 100867

Hi all,

I have just completed a translation of NEC2 from fortran to C which
was done "manually" and thus has no dependency on f2c and similar auto
translators. I have also incorporated changes to the source code so
that built-in limitations are removed as far as possible and the use
of file storage for solving complex structures is not needed.

More info and source/binary packages form the nec2 archives:

http://www.qsl.net/wb6tpu/swindex.html

Please note my email address is: neoklisk-AT-cytanet-DOT-com-DOT-cy

Best regards

Neoklis - 5B4AZ

1796. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 15:17:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401fbc4d$1_3@corp.newsgroups.com>
Source record: 100868
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

W4JLE wrote:
> That certainly would explain why the plural of the two different types are
> different.

My guess is that the plural for insect antennae came from Latin
and the plural for RF antennas came from a more modern language.
The word "antenna" entered the English language around 1646
from Middle Latin according to my dictionary. There were no
RF antennas in 1646, at least not on purpose.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1797. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 15:19:39 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401fbcd6$1_3@corp.newsgroups.com>
Source record: 100669
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Brenda Ann wrote:
> I believe that both plurals (antennas and antennae) are correct. One is
> simply the Latin plural, and the other the Anglicized plural.

My unabridged dictionary says that antennas is the plural of
RF antenna and antennae is the plural of insect antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1798. Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 15:39:00 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <bvofak$c74$1@xuxa.iecc.com>
Source record: 100670
Cross-posted to: rec.audio.tech,rec.radio.amateur.antenna,rec.radio.broadcasting

Hi. Does Radioshack still manufacture Part No. 150-1639 or 15-1639, which is an FM turnstile antenna? Looks unlikely to me.

http://support.radioshack.com/support_video/15785.htm

[Crossposted, but all replies/followups will go to alt.radio.broadcasting]

1799. Re: Did I do this TV antenna right for 665mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 15:48:21 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <YdGdnVsJ-6ZVX4Ld4p2dnA@comcast.com>
Source record: 100671

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:bvlv3a$9bi$1@newshost.mot.com...
> If I understand, you made the antenna twice as long as necessary. See
> below.
>
I missed that.

Tam/WB2TT

1800. Re: Noise - MFJ-1265?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 16:13:12 UTC
From: "M.D." <ve3tmt@yahoo.ca>
Message-ID: <QMPTb.9079$9U5.531456@news20.bellglobal.com>
Source record: 100672

"Ronald Walters" <rwalters8@cfl.rr.com> wrote in message
news:9R9Tb.126611$873.2707593@twister.tampabay.rr.com...
> Background: Within the past several months my QTH which was virtually a
> very low noise environment now is one of the nosiest QTH's I have ever
lived
> in. Birdies every 17 kc across 160-80 and 40. Some nights its worse with
> birdies every 5-7-kc. These are not low signal strengths either but up to
a
> S-9+ on 80 meters.
> have check with all of my neighbors since initially it would start right
at
> 5 PM and last all night until 7:30 in the morning. My first thought was
an
> auto light fixture. Well it's gotten bad and doesn't seem to be on a
> regular time schedule. Feelings are TV or touch lamp. Possible PC but
> don't know. Power company is Florida Progress which is a Duke Energy
> company. Have heard that Duke is playing with their new Internet access
> over power lines but I do not think it has hit the central Florida market.
>
> Question - I am thinking about trying the MFJ-1265 Noise phasing unit.
Have
> read an old review on ARRL and other comments on some bulletin boards but
am
> wondering if anyone out there has experience with the unit and what their
> honest impression is. In addition to that unit I plan on a complete
rework
> of the antenna and grounding system her just to make sure I do not have a
> poor joint in the system that is providing some rectification and being
self
> induced. Any comments will be appreciated.
>
> Again thanks to the list for accepting this inquiry, I respect the
expertise
> of the this group.
>
> Ron - W4LDE

Ron,

I have been experiencing almost the same problems. I run a TS850 and
loop/SGC239 combo on this end. I went through all the troubleshooting routes
to find the source of my noise. All my radio gear is on a 12V battery
system with charger so I know it is not coming through the AC lines. If I
remove the antenna the noise disappears. It ended up being a combination of
two sources, the highspeed cable modem hooked up to the computer upstairs in

the living room, and the switching supply in my living room TV. Unplugging both devices completely eliminates all noise on the rig. I even went as far as to line both the modem case and inside of the TV with aluminum tape. Helped a little bit but the noise was still S9+ on 160 and 80. Even put an AC line filter on the TV just in case. In desperation I tried the MFJ 1026 noise canceller. With a pickup antenna running on the basement ceiling under the TV, I am able to null the noise from S9 to about S2 or S3. I am hearing PSK signals on 20m I couldn't hear before. Not the ideal solution, but it does allow me to enjoy HF again. I would try and borrow one first to see if it will work in your situation.

Good luck,

Max

1801. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 17:06:10 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <22kv101je12oq3g7bc1ja47hug2vhe2d59@4ax.com>
Source record: 100673

On Mon, 02 Feb 2004 22:28:55 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

|Wes Stewart wrote:
|> I downloaded a couple of them, but I have a question. I opened them
|> using MultiNEC, which reads all of the popular modeling program file
|> formats. The loads did not import, but when I opened the same files
|> in EZNEC 3 I saw them as R+jX loads with only an 'X' value.
|
|You can put in any R and XL value, Wes. The phase of the current will
|not change. The magnitude decreases and the phase stays the same.

Okay, I guess that means the answer is: you used R+jX loads.
|
|> I learned from Dan, AC6LA, the author of MultiNEC, that some early
|> EZNEC versions save all loads as Laplace and he doesn't read those
|> into MultiNEC. Opening the files in EZNEC 3 and then just resaving
|> them makes the import into MultiNEC work okay, but this makes me
|> suspect that using your earlier files in my later version might be a
|> problem. The documentaion says otherwise though, but to be sure, what
|> are the actual load parameters.
|
|Well, your Laplace files won't run on my EZNEC version 2.0. They all
|come up as zeros. So I don't know what loads you used either.

Mine aren't Laplace loads. There are straight RLC with C=0.

|
|> I don't want to comment further until I know exactly what you are
|> using.
|
|You can vary R and XL values from zero to infinity. The phase of the
|current never changes. I tried values from 1+j300 to 1000+j300000
|and it only affected the magnitude, not the phase.

It remains to be seen in my mind whether you are correct in your
assertions; however, I believe that you have stated that in your Kraus
reference that he used the self-resonance of the inductors to do the
magic.

How on Earth can you expect a load consisting of only R and Xl to be
self-resonant?

1802. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 17:49:18 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <401FDF26.4040006@get.lost>
Source record: 100674
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Bill Turner wrote:

> I noticed this tendency of the right wing in America to use the word
> "Democrat" in place of "Democratic" several months ago on talk radio.
> Does anyone know where and how it started?

About the same time when "liberal" replaced the "communist" bogeyman in
the vocabulary of the AM talk show drug addicts?

73 .... WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

1803. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 17:58:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <chnv10h61fk15om1qfgd5tvh8kh8u99mro@4ax.com>
Source record: 100675

On 3 Feb 2004 06:37:38 -0800, 5b4az@qsl.net (Neoklis) wrote:

>Hi all,
>
>I have just completed a translation of NEC2 from fortran to C which
>was done "manually" and thus has no dependency on f2c and similar auto
>translators. I have also incorporated changes to the source code so
>that built-in limitations are removed as far as possible and the use
>of file storage for solving complex structures is not needed.
>
>More info and source/binary packages form the nec2 archives:
>
>http://www.qsl.net/wb6tpu/swindex.html
>
>Please note my email address is: neoklisk-AT-cytanet-DOT-com-DOT-cy
>
>Best regards
>
>Neoklis - 5B4AZ

Hi Neoklis,

This is a very clear and readable source. Good work. I am especially
impressed by your comment:
"All GO TO constructs have been removed (all 961 of them!) and
'spaghetti' code sections untangled as far as was possible to the
author."

How long did this take?

73's
Richard Clark, KB7QHC

1804. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 18:13:36 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <bvooch$18vo$1@f04n12.cac.psu.edu>
Source record: 100677

Neoklis wrote:
> Hi all,
>
> I have just completed a translation of NEC2 from fortran to C which
> was done "manually" ...

Neoklis,

I looked at the URL, and you've done a lot of work to update the code.
That is commendable, and you deserve thanks from the amateur community.
You certainly have my thanks. I'm curious to know how much regression
testing you've done.

73,
Bob AD3K
--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

1805. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 18:15:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <401fe610$1_8@corp.newsgroups.com>
Source record: 100678

Wes Stewart wrote:
> Mine aren't Laplace loads. There are straight RLC with C=0.

The 'LO' display says "Laplace Coefficients", "Select to show
values", and the values are all zero. The feedpoint impedance
of the antenna is infinite.

> I believe that you have stated that in your Kraus
> reference that he used the self-resonance of the inductors to do the
> magic.

No magic - just relatively simple experiments. 1/2WL of a helical
antenna reverses the phase of the current just like a 1/2WL wire
does, over ground or in free space.

> How on Earth can you expect a load consisting of only R and Xl to be
> self-resonant?

I *don't* expect such a coil to simulate reality. That's the whole problem.
The artificial lumped load software doesn't match reality. It only
approaches reality for "physically small" coils. Once again, a 75m Texas
Bugcatcher coil is not physically small.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1806. Re: Balun design / SWR ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 18:15:38 UTC
From: k7itm@aol.com
Message-ID: <3200347.0402031015.17258e87@posting.google.com>
Source record: 100676

Wolfgang,

Then it's a bit of a puzzle. With two 4 cm pieces of wire connecting a 50 ohm resistor to your meter, I wouldn't expect 2:1 SWR at 30MHz. Maybe I can find time to try it on a good network analyzer today and see what it looks like. As I understand your first posting, you see the error with no balun involved, just the 50 ohms connected to the meter through short ~4cm wires, and the error goes away when you shorten the leads to practically nothing. Could your meter be in error? You can check for a 2:1 SWR at 30MHz if you put 150pF in series with 50 ohms, with very short leads right at the meter (or through a short piece of 50 ohm line). It's always good to be able to check your meter with some known loads--they don't have to be precision loads for usual amateur work. For example, 50 ohms + 150pF = 2.00:1 at 30MHz, and if you have a 5% error in the resistor and 5% in the capacitor, you could be as low as 1.91:1 or as high as 2.11:1, which is too small an error to worry about for any ham application I can think of.

Cheers,
Tom

Wolfgang K. Meister <no.mail@please.com> wrote in message news:<bqfu10lr0rdc5vjdusgtdse0dcdepvf3o7@4ax.com>...
> On 2 Feb 2004 10:07:11 -0800, k7itm@aol.com (Tom Bruhns) wrote:
>
> >You didn't mention the specific frequency, ...
>
> Tom - I was testing between 3 (7) and 30 Mhz
>
> 73s de Wolfgang

1807. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 18:25:48 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <MIRTb.84026$U%5.449628@attbi_s03>
Source record: 100679

I sent Massimo direct mail asking if he really meant 13.56 MHz. He
responded, YES!

I still wonder if he is having a language problem understanding MHz and
GHz!!

John Smith wrote:

> "Massi" <msignorini@calearotlc.com> wrote in message
> news:bvlp09jrf1@fata.cs.interbusiness.it...
>
>>>Isn't waveguide kind of big at 13.56 MHz?
>>>
>>>John
>>>
>>
>>forgive me, but I don't understand what you mean.
>>Massimo
>>
>
>
>
> Well, you said:
>
> "VSWR COPLANAR WAVEGUIDE 50 OHM
> 13.56 MHz => 1.0250
> 1 GHz => 1.1698
> 3 GHz => 1.3500"
>
> Maybe I don't understand coplanar waveguide, but I thought it would have to
> be really big to fit 13.56 MHz inside.
>
> John
>
>

1808. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 18:39:22 UTC
From: Roger Gt <not@here.net>
Message-ID: <uVRTb.21193$B54.9632@newssvr25.news.prodigy.com>
Source record: 100680
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Bill Turner" <noway@nohow.com> wrote in message
news:d9lv10dcpu6n7o9vg7o3cb0p3qqj38so13@4ax.com...
> On Tue, 3 Feb 2004 00:49:16 -0800, "Ed Price"
<edprice@cox.net> wrote:
> >Nope! Have seen the Democrats in action
(Chicago), and they sure aren't
> >democratic.
>

> Don't be fooled by whether the name is correct
or not; the word
> Democratic is just an adjective, as in "The
Peoples Democratic Republic
> of (fill in the blank). Fools nobody.
>
> I noticed this tendency of the right wing in
America to use the word
> "Democrat" in place of "Democratic" several
months ago on talk radio.
> Does anyone know where and how it started?
> --
> Bill, W6WRT

Democrat is closer to "Demon_Rat," a proper name
of what is eating away at the foundations of the
country!
At least that is what I heard!

X-No-Archive: yes

1809. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 18:41:45 UTC
From: Roger Gt <not@here.net>
Message-ID: <JXRTb.21195$de4.14375@newssvr25.news.prodigy.com>
Source record: 100681
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Zoran Brlecic" <...WA7AA...@get.lost> wrote in
message news:401FDF26.4040006@get.lost...
> Bill Turner wrote:
>
> > I noticed this tendency of the right wing in
America to use the word
> > "Democrat" in place of "Democratic" several
months ago on talk radio.
> > Does anyone know where and how it started?
>
> About the same time when "liberal" replaced the
"communist" bogeyman in
> the vocabulary of the AM talk show drug addicts?
>
> 73 .... WA7AA

Now a Bogyman at all!

Liberal + political power = Communist

Simple math and reading the Democratic parties
manifesto!

--
X-No-Archive: yes

1810. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 19:40:43 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvotfo$ee7$1@news3.infoave.net>
Source record: 100682

One wonders if he really meant 1356 MHz

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:MIRTb.84026$U%5.449628@attbi_s03...
> I sent Massimo direct mail asking if he really meant 13.56 MHz. He
> responded, YES!
>
> I still wonder if he is having a language problem understanding MHz and
> GHz!!
>
> John Smith wrote:
>
> > "Massi" <msignorini@calearotlc.com> wrote in message
> > news:bvlp09jrf1@fata.cs.interbusiness.it...
> >
> >>>Isn't waveguide kind of big at 13.56 MHz?
> >>>
> >>>John
> >>>
> >>
> >>forgive me, but I don't understand what you mean.
> >>Massimo
> >>
> >
> >
> >
> > Well, you said:
> >
> > "VSWR COPLANAR WAVEGUIDE 50 OHM
> > 13.56 MHz => 1.0250
> > 1 GHz => 1.1698
> > 3 GHz => 1.3500"
> >
> > Maybe I don't understand coplanar waveguide, but I thought it would have
to
> > be really big to fit 13.56 MHz inside.
> >
> > John
> >
> >
>

1811. Re: Aluminum rod for yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 20:05:15 UTC
From: butch <butch@butch.com>
Message-ID: <401FFEFB.AEC72F61@butch.com>
Source record: 100683

http://www.mcmaster.com

mcmaster carr big place online to get almost anything.
they ship fast low cost too.

butch

K6ME wrote:

> Have you tried ACE Hardware?

1812. Best antenna to go through triple-pane glass

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 21:05:53 UTC
From: nyresource@hotmail.com
Message-ID: <64906530.0402031305.30191502@posting.google.com>
Source record: 100684

Hi: Looking for recommendation on the best antenna to go through 3 panes of glass. Here is my configuration:

WISP > one mile LOS > High Gain Antenna > 2 ft pigtail > Netgear Bridge > 5 ft cat 5 cable > Netgear AP > XP laptop w/SMC universal wifi card

No option to put outside the building. Antenna must be inside building. Tried going through wall but worse than going through the windows.

Thanks

1813. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 21:32:32 UTC
From: Nelson <tstevens@cogeco.ca>
Message-ID: <bvp41g$1or$1@xuxa.iecc.com>
Source record: 100685
Cross-posted to: rec.audio.tech,rec.radio.amateur.antenna,rec.radio.broadcasting

Where can I buy this and HAM radio's in Canada???

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:bvofak$c74$1@xuxa.iecc.com...
> Hi. Does Radioshack still manufacture Part No. 150-1639 or 15-1639, which
> is an FM turnstile antenna? Looks unlikely to me.
>
> http://support.radioshack.com/support_video/15785.htm
>
>
> [Crossposted, but all replies/followups will go to alt.radio.broadcasting]
>
>
>
>

1814. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 21:49:54 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <6IUTb.10904$F23.10851@newsread2.news.pas.earthlink.net>
Source record: 100686

"W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
news:bvotfo$ee7$1@news3.infoave.net...
> One wonders if he really meant 1356 MHz
>
> "Dave Shrader" <david.shrader@comcast.net> wrote in message
> news:MIRTb.84026$U%5.449628@attbi_s03...
> > I sent Massimo direct mail asking if he really meant 13.56 MHz. He
> > responded, YES!
> >
> > I still wonder if he is having a language problem understanding MHz and
> > GHz!!

Yes, GHz would make much more sense.

Thanks,
John

1815. WTB: RG-133 coax

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 23:10:31 UTC
From: "R. Soetedjo" <robi@u.washington.edu>
Message-ID: <Pine.A41.4.58.0402031509140.213054@mead12.u.washington.edu>
Source record: 100688
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

I'm looking for some RG-133 coax for building antenna phasing network?
Please email me if you have some.

tnx
rob

1816. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-03 23:13:07 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <5ha02058cvmjmvbkhoe095169gv9l4rseb@4ax.com>
Source record: 100687

On Tue, 03 Feb 2004 21:49:54 GMT, "John Smith" <jocjo-john@yooha.com>
wrote:

>"W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
>news:bvotfo$ee7$1@news3.infoave.net...
>> One wonders if he really meant 1356 MHz
>>
>> "Dave Shrader" <david.shrader@comcast.net> wrote in message
>> news:MIRTb.84026$U%5.449628@attbi_s03...
>> > I sent Massimo direct mail asking if he really meant 13.56 MHz. He
>> > responded, YES!
>> >
>> > I still wonder if he is having a language problem understanding MHz and
>> > GHz!!
>
>Yes, GHz would make much more sense.
>
It looks like 13.56 MHz is used for RFID systems as part of an
international standard.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1817. Re: Balun design / SWR ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 01:17:25 UTC
From: k7itm@aol.com
Message-ID: <3200347.0402031717.5a82868e@posting.google.com>
Source record: 100689

k7itm@aol.com (Tom Bruhns) wrote in message
news:<3200347.0402031015.17258e87@posting.google.com>...

> Then it's a bit of a puzzle. With two 4 cm pieces of wire connecting
> a 50 ohm resistor to your meter, I wouldn't expect 2:1 SWR at 30MHz.
> Maybe I can find time to try it on a good network analyzer today and
> see what it looks like.

Did that. With two 100 ohm 1% 0805 SMT resistors in parallel right at an SMA jack, using a freshly calibrated network analyzer at 30MHz, I got about 60dB return loss, or about 1.002:1 SWR. Putting the same two resistors on a pair of 4cm long 28AWG wires formed into a circular loop, I got 17.3dB return loss at 81 degrees, which is about 1.32:1 SWR and matches up really well with about 73nH of series inductance plus a tiny bit of excess series resistance. That's just about the inductance my calculator tells me it ought to be.

So...I'd look for some other reason for the 2:1 SWR reading.

Cheers,
Tom

1818. TVI on Sat TV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 01:30:35 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <%WXTb.18987$fH2.15407@twister.tampabay.rr.com>
Source record: 100690

hey guys
while working on 6 meters tonight i got a knock on my door and the guy
said i was getting into his Satellite TV his TV is on channel 4 and his
Dish was Professionally installed so could someone let me know what i
can do to stop this?
i am unfamilar with sat TV and dont know how to cure this issue
so any info would be a big help
thanks

1819. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 01:31:25 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <NXXTb.780$4k3.466@newssvr23.news.prodigy.com>
Source record: 100691
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"erdem" <ultanir_99@yahoo.com> wrote in message
news:c403e21f.0402030550.f92ac8d@posting.google.com...
> Actually I am not trying to design antennas (>500Mhz to 1Ghz- I guess
> this gives you information about what sort they are), I am trying to
> buy them on a pcb or small chips that could be mounted on a PCB.

Your wavelength of interest is 3cm at a minimum...
you're trying to put them into a box smaller than
that.

How much gain should this antenna have? How
broad-banded does it have to be? How much
power does it have to handle? What kind of
polarization do I want? These are basic
questions you should answer.

--
Steve
KI5YG/EA
.

1820. Re: Balun design / SWR ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 01:35:59 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <30YTb.781$7I3.384@newssvr23.news.prodigy.com>
Source record: 100692

"Wolfgang K. Meister" <no.mail@please.com> wrote in message
news:jrtr101cbafvovq3age37ppuu2188qk62e@4ax.com...

...

> How can I measure a Balun or Unun, what setup do I need?

You need a termination resistor... you can make one
by soldering a resistor inside a PL-259, or you can
buy one (they are available for 50ohms as BNC format).

--
Steve
KI5YG/EA
.

1821. Re: TVI on Sat TV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 02:10:40 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnc20l50.6ne.bit-bucket@localhost.config.com>
Source record: 100693

On Wed, 04 Feb 2004 01:30:35 GMT, Dennis Kaylor hath writ:

>...and his
> Dish was Professionally installed

A lot of what I read in other ng's would
indicate this is *only* a marketing phrase.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | config.com | DM68mn SK

1822. FS: ham equiptment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 02:26:52 UTC
From: dvari <dmvari@adelphia.net>
Message-ID: <HdmdnT8To_z8xb3dRVn-gg@adelphia.com>
Source record: 100694

For sale
MFJ versa tunerIII model mfj-962c works great,scratch on the top $150.00
or B/O.

Workman 120mHz tru 500mHz SWR/Wattmeter 3 power ranges 10,100,500 watts
used very little $40.00 or B/O.

Wiring harness for any module for Yeasu FT-726r rig $25.00 or B/O.

Heathkit oscilloscope needs repair $60.00 or B/O.
All items DO NOT include shipping and insurance.From zip code 14215 Buffalo,
New York.Reply this packet or email david_vari@yahoo.com or phone
1-716-838-2164 before 2pm mon-fri.Any time weekends.
Thank you de Dave-N2RHL.

1823. Re: TVI on Sat TV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 02:55:21 UTC
From: dplatt@radagast.org
Message-ID: <1020nopgdekrnab@corp.supernews.com>
Source record: 100695

>hey guys
>while working on 6 meters tonight i got a knock on my door and the guy
>said i was getting into his Satellite TV his TV is on channel 4 and his
>Dish was Professionally installed so could someone let me know what i
>can do to stop this?

>i am unfamilar with sat TV and dont know how to cure this issue
>so any info would be a big help

There could be two sorts of TVI he might be experiencing, with a number of different causes.

The actual satellite TV system (I'm assuming it's Dish Network or DirecTV, rather than an analog Big Ugly Dish) is using digital MPEG-2 video compression. Interference with the actual digital signals themselves would probably result in the image on the screen breaking up into square or rectangular "macroblocks", freezing, blanking out, and/or the satellite receiver putting up a splash-screen saying "Looking for satellite signal".

If this is the problem, you'd probably be dealing with a high level of RF current on his receiver-to-dish coax, or RF getting into the receiver itself via the satellite cable, power cord, or the cable to the TV. The way to deal with this would probably be to add common-mode chokes - toroids, or clamp-on two-part beads - to all of these wires. Chokes or beads on the satellite cable should be placed at the receiver, at the dish (right by the LNB), and probably at a few other places along the feedline.

It's more likely, though, that the RF is interfering with the modulated (channel 4) signal from the satellite receiver to the TV set. This wouldn't cause the signal to macroblock or freeze - instead, you'd see analog noise on the screen, "herringbones", and possibly a squawking sound in the audio. He might be hearing your side of the QSO, and be disconcerted at hearing Donald Duck even when tuned to a non-Disney channel.

This sort of interference might be the result of one of two sorts of problems:

- Harmonics. Channel 4 is at 66 - 72 MHz. The 6-meter band is 50 - 54 MHz. As there's no simple harmonic relationship there, it's probably not what's happening.

- Fundamental overload. It's quite common for a strong RF signal to overload the NTSC tuner in a television - the tuner begins to react to signals which lie outside of the bandwidth of the station it's

tuned to. This tends to happen because the RF front end transistors are hit with such a strong signal that they begin "clipping", or at least suffering from severe intermodulation.

The TV sets in our house can react to as little as 5 watts of 2-meter power from any of several different radios, and I'm going to have to install a notch filter to restore domestic tranquility.

I'd guess that fundamental overload is more likely the problem. Your 6-meter signal is getting into the coax (or other cable) between his satellite receiver and his TV set, and is overloading the tuner.

The good news (I suppose) is that if this is the problem, you are very probably _not_ legally obligated to fix it. The FCC says that this sort of thing is the fault of the receiving equipment (which has inadequate shielding and filtering), rather than the transmitting equipment (as long as it's transmitting signals only in the authorized amateur bands, at legal power levels).

In practice, though, and for good-neighbor reasons, it's often best if you help advise the TV owner as to how the problem can be eliminated.

The first thing to see, is if he can switch from using the channel 4 RF modulator, to a direct hard-wired video connection (either composite video, or S-Video) with hard-wired audio. These "baseband" signals are much lower in frequency, don't go through the TV's tuner at all, and are likely to be a lot less subject to interference. They look better, too. If his TV and satellite receiver are so equipped, I'd suggest this approach.

If he can't switch to direct video, using a better-quality coax arrangement between satellite receiver and TV might help - use a well-shielded 75-ohm cable, and make sure the connectors at both ends are well crimped. Avoid the use of 75-to-300-ohm baluns if possible.

Also, install some ferrites on whatever cable goes from the satellite box to the TV (video, audio, and/or RF), as close to the TV as possible. Also install ferrites on the TV power cord, as close to the TV as possible.

When I say "install", I really mean "recommend that he install". It's probably best if you _not_ do the installation or modifications yourself - if you do, he may hold you responsible for anything which ever goes wrong with the equipment in the future.

It'd also help to read through the information that the ARRL has gathered (http://www.arrl.org/FandES/field/regulations/rfi-legal/), and discuss this with your neighbor in a supportive and non-threatening way (he may not like to hear a blunt "Well, it's your problem and not mine" even if that is legally the case).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1824. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 03:06:49 UTC
From: Attila The Hun <Attila@door.net>
Message-ID: <1020oeb3hg6co4f@corp.supernews.com>
Source record: 100696
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Bob McConnell wrote:

> That is correct. The first codeless license (Technician) was
> introduced Feb 1991. But how did the written portions compare between
> the amateur and commercial licenses?
>
> Bob McConnell
> N2SPP
>

I remember the First Phone as being the toughest test. There were a lot
of questions about tube type circuits, and I was only familiar with
solid state. The amateur tests had been "modernized" with transistor
circuit questions, but the commercial tests were on "fifties" era circuits.

1825. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 03:18:14 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <WvZTb.169440$Rc4.1304377@attbi_s54>
Source record: 100697

Yuri, You might want to look at
http://web.ukonlineco.uk/g3ldo
as there is quite a bit of interchange between various hams
on measuring coils.
It may give you some ideas for when the snow melts
Regards
Art

"Yuri Blanarovich" <k3bu@aol.comnoUsama> wrote in message
news:20040131164549.20644.00000777@mb-m21.aol.com...
> >> The reality is that current is different, Eznec can't model it, ...
> >
> >Yuri, have you read Wes's article? Using wire segments, he modeled a
loading
> >coil in EZNEC. His segmented wire model of a coil shows a current taper
> >through the coil. It's on his web page at: http://www.qsl.net/n7ws
> >You can also download Wes's zipped EZNEC files.
> >--
> >73, Cecil http://www.qsl.net/w5dxp
> >
>
>
> Sorry!
> OK, I will be more precise:
> Eznec can't model current through zero physical size, but certain value
> inductance inserted in the antenna element. (As W8JI shows on his web page
> modeling his mobile antenna, "proving" that current is the same :-)
> If the inductance is modeled as coiled wire with numerous segments and
proper
> physical dimensions, then the current is modeled and reflects the reality.
> (Tough to do modeling typical loading coils.)
> How's that?
> Sorry I got pulled into the simplificity :-)
> LB Cebik on his web site also has an example of coil modeled using
segments and
> it shows current drop.
>
> I hope it warms up, so I can get out, dig the car from the snow and do
some
> experimenting.
>
> First experiment will be with 80m Hustler coil in order to use "standard"
> (lousy) typical coil. I will paste LCD strip thermometers on the coil to
> measure temperature changes at various positions, ends, middle.

>
> Experiment #1:
> I will drive DC current through the coil in order to generate heat and
observe
> the temperatures across the coil. I predict that thermometers will be
tracking
> each other very closely or be identical (ideal case).
>
> Experiment #2:
> I will insert the same coil in the Hustler mobile antenna, tune to
resonance
> and fire 100W to it. I will observe temperatures between the end and
center and
> between two ends. I expect difference indicating difference in current at
> various points.
>
> This will be the least disturbing measurement setup, no conductive nothing
> disturbing the coil or antenna. I am assuming LCD thermometer is RF
transparent
> and I will verify that it does not detune the antenna/coil. Perhaps not
very
> accurate, but sufficient to demonstrate the debated differences.
> The next measurements will be with current probes and RF ammeters. This
will
> give more accurate values.
>
> Any problems with that?
>
> Yuri, K3BU.us

1826. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 03:55:46 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040203225546.15185.00000358@mb-m06.aol.com>
Source record: 100698

>
>Yuri, You might want to look at
> http://web.ukonlineco.uk/g3ldo
>as there is quite a bit of interchange between various hams
>on measuring coils.
>It may give you some ideas for when the snow melts
>Regards
>Art
>

that link don't worky

1827. 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 04:14:43 UTC
From: nightowls627@aol.comnojunk
Message-ID: <20040203231443.28384.00001274@mb-m15.aol.com>
Source record: 100699

I realize this is a common thread but I have actually looked through the suggestions and still am unsure of what to get. I am getting an ic2100 mobile and want to put it in my mini-van. . .well . . .my wife's mini-van. It is the vehicle we do the most traveling in. Rs sells a magmount scanner/2m antenna. She really does not want that. She shops a lot and goes into parking garages so it needs to hide or fold like the larsens. I have been told NO holes in the vehicle. what is my recourse for this conundrum? Oh, and the final kicker, can it be done for under 50 bucks?

Thanks
73
Greg
ki4bbl@arrl.net

1828. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 04:28:37 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402032028.27f8548c@posting.google.com>
Source record: 100700

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
>
> I *don't* expect such a coil to simulate reality. That's the whole problem.
> The artificial lumped load software doesn't match reality. It only
> approaches reality for "physically small" coils. Once again, a 75m Texas
> Bugcatcher coil is not physically small.

It's physically small enough that any error should be small. IE: 1 db
or less.
This has been shown a few times. Myself, I don't lose much sleep over
the phasing coil dilemma. I don't think it will be much of an issue
when modeling simple short loaded whips. Being there is a workaround
for phasing antennas, IE: separate sources where you can define the
phase angle, the antenna can still be modeled.
There is something that keeps bothering me and my beady mind though...
You say the current going "one way" will be fairly constant across the
coil. Will the coil position effect this? If not, that creates a new
problem.
If the coil position does not effect the current taper going "one
way", I don't see how it would coming back the other way. Regardless
of coil position. If the current is constant going one way, seems to
me it would also be constant the other way. So in effect, they would
cancel each other out, and would still be fairly constant. I guess
what I want to see is experiments to test your theory of coil position
effecting the current taper. IE: You claim a center load would have
constant current, but off center would not. Seems to me, if this is
true, there should be a position that places maximum current at the
top of the coil, not bottom. If you never see this, I would be
suspect.
Well, back to my 1 db or less rubber room... MK

1829. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 04:34:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4020772b$1_5@corp.newsgroups.com>
Source record: 100701

Greg Doughty wrote:
> what is my recourse for this conundrum?

Find a more understanding female?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1830. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 04:47:08 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <gP_Tb.864$0B4.143@newssvr23.news.prodigy.com>
Source record: 100702

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message
news:20040203231443.28384.00001274@mb-m15.aol.com...
> I realize this is a common thread but I have actually looked through the
> suggestions and still am unsure of what to get. I am getting an ic2100
mobile
> and want to put it in my mini-van. . .well . . .my wife's mini-van. It is
the
> vehicle we do the most traveling in. Rs sells a magmount scanner/2m
antenna.
> She really does not want that. She shops a lot and goes into parking
garages
> so it needs to hide or fold like the larsens. I have been told NO holes
in the
> vehicle. what is my recourse for this conundrum? Oh, and the final
kicker,
> can it be done for under 50 bucks?

I believe your best bet would be either a
mag-mount 1/4 wave or dual-bander by
Larsen, or best would be a 5/8 wave lip-
mounted in your hood. opposite the AM/FM
antenna. Larsen makes the little L-bracket
for NMO mount... those take drilling, but
it's in an out-of-the-way place under the hood.
If your hood's gap is too tight, this might not
be an option.

If you're going to spend money, I'd go
with Larsen... I'd stay away from the RS
stuff for VHF.

--
Steve
KI5YG/EA
.

1831. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 04:50:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40207ad3_5@corp.newsgroups.com>
Source record: 100703

Mark Keith wrote:

> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
>
>>I *don't* expect such a coil to simulate reality. That's the whole problem.
>>The artificial lumped load software doesn't match reality. It only
>>approaches reality for "physically small" coils. Once again, a 75m Texas
>>Bugcatcher coil is not physically small.
>
> It's physically small enough that any error should be small. IE: 1 db
> or less.

A 13% error is small? The error is even larger than that for the current
at the top of the coil.

> If the coil position does not effect the current taper going "one
> way", I don't see how it would coming back the other way. Regardless
> of coil position.

The forward current and reflected current phasors rotate in opposite
directions. Sometimes they are in phase and sometimes they are out
of phase. In a lossless transmission line, the forward current and
reflected current are absolutely constant with zero taper. Yet they
still result in standing waves with minimum and maximum points. This
is explained on my web page.

> Seems to me, if this is
> true, there should be a position that places maximum current at the
> top of the coil, not bottom.

I have already said multiple times, depending upon where the coil is
placed, the net current into the coil can be less than, equal to, or greater
than the net current coming out. It all depends upon the phasor sum of the
forward current and reflected current. It can be zero or maximum or
anything in between depending upon where the coil is placed. For Kraus'
phase-reversing coil, the net current is zero at both ends and maximum
in the middle of the coil.
--
73, Cecil http://www.qsl.net/w5dxp/current.htm

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1832. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 05:17:30 UTC
From: 5b4az@qsl.net
Message-ID: <e637e579.0402032117.43b59a25@posting.google.com>
Source record: 100704

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<chnv10h61fk15om1qfgd5tvh8kh8u99mro@4ax.com>...
> On 3 Feb 2004 06:37:38 -0800, 5b4az@qsl.net (Neoklis) wrote:
>
>
> Hi Neoklis,
>
> This is a very clear and readable source. Good work. I am especially
> impressed by your comment:
> "All GO TO constructs have been removed (all 961 of them!) and
> 'spaghetti' code sections untangled as far as was possible to the
> author."
>
> How long did this take?
>
Thanks for the good words, Richard. I started work on August 20 last year
and have been working on it most of the time till now so its about 5 months.
Was very hard at times but I am glad I did not give up!

73's "Nick" 5B4AZ

1833. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 05:33:20 UTC
From: 5b4az@qsl.net
Message-ID: <e637e579.0402032133.7a2b9c08@posting.google.com>
Source record: 100705

Robert Spooner <rls19@psu.edu> wrote in message news:<bvooch$18vo$1@f04n12.cac.psu.edu>...
>
> I looked at the URL, and you've done a lot of work to update the code.
> That is commendable, and you deserve thanks from the amateur community.
> You certainly have my thanks. I'm curious to know how much regression
> testing you've done.
>
Hi Bob,

Thanks for the nice words. I tested the translation as much as I could
by comparing my version of program flow with the original source. It was
possible this way to spot a lot of bugs, most of them related to
"off-by-one" errors since fortran uses indices from 1 - n while C from
0 - (n-1). Also untangling GOTO's required a lot of changes mainly in
"spaghetti" sections and these were also prone to errors.

Eventually I debugged the code as far as was possible by constructing
input files that would hopefully put NEC2 through all possible paths
(there are about 1275 if conditionals and about 450 do/while loops!)
and comparing the output with the original fortran code. I then tried
a large number of input files found on the internet and compared outputs.
I had very good agreement in all my tests but I am sure that some
combination in an input file will trigger off hidden bugs.

73's "Nick" 5B4AZ

1834. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 06:04:34 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <40208B7A.6030409@get.lost>
Source record: 100706
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Roger Gt wrote:

>>About the same time when "liberal" replaced the
>>"communist" bogeyman in
>>the vocabulary of the AM talk show drug addicts?
>>
>>73 .... WA7AA
>
>
> Now a Bogyman at all!
>
> Liberal + political power = Communist
>
> Simple math and reading the Democratic parties
> manifesto!

This is your mind on Limbaugh crack.

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

1835. Re: Best antenna to go through triple-pane glass

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 06:27:08 UTC
From: LinkTech <vk3kcg@amsat.org>
Message-ID: <402090ba$0$28867$afc38c87@news.optusnet.com.au>
Source record: 100707

Glass only starts acting as a lossy medium when over 8 Ghz.

"Chuck Daniels" <nyresource@hotmail.com> wrote in message
news:64906530.0402031305.30191502@posting.google.com...
> Hi: Looking for recommendation on the best antenna to go through 3
> panes of glass. Here is my configuration:
>
> WISP > one mile LOS > High Gain Antenna > 2 ft pigtail > Netgear
> Bridge > 5 ft cat 5 cable > Netgear AP > XP laptop w/SMC universal
> wifi card
>
> No option to put outside the building. Antenna must be inside
> building. Tried going through wall but worse than going through the
> windows.
>
> Thanks

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.574 / Virus Database: 364 - Release Date: 29/01/2004

1836. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 06:45:58 UTC
From: Roger Gt <not@here.net>
Message-ID: <Gy0Ub.21390$AL2.12790@newssvr25.news.prodigy.com>
Source record: 100708
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

```
"Zoran Brlecic" <...WA7AA...@get.lost> wrote in
message news:40208B7A.6030409@get.lost...
> Roger Gt wrote:
>
> >>About the same time when "liberal" replaced
the
> >>"communist" bogeyman in
> >>the vocabulary of the AM talk show drug
addicts?
> >>
> >>73 .... WA7AA
> >
> >
> > Now a Bogyman at all!
> >
> > Liberal + political power = Communist
> >
> > Simple math and reading the Democratic parties
> > manifesto!
>
>
> This is your mind on Limbaugh crack.
>
What's a Limbaugh?
--
X-No-Archive: yes
```

1837. Re: TVI on Sat TV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 07:13:50 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvq63c$10mr$1@news3.infoave.net>
Source record: 100709

I would bet that he has his sat receiver feeding the TV through his VCR. In that case the PIN diodes in the VCR are the culprits. Get us a little more info as to what is hooked to what and we can help you.

Does he have a standard antenna hooked to the receiver for local channels etc. Need more input!

"Dennis Kaylor" <k4oxg@tampabay.rr.com> wrote in message news:%WXTb.18987$fH2.15407@twister.tampabay.rr.com...
> hey guys
> while working on 6 meters tonight i got a knock on my door and the guy
> said i was getting into his Satellite TV his TV is on channel 4 and his
> Dish was Professionally installed so could someone let me know what i
> can do to stop this?
> i am unfamilar with sat TV and dont know how to cure this issue
> so any info would be a big help
> thanks
>

1838. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 07:20:21 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <40209D3D.7070806@get.lost>
Source record: 100710
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Roger Gt wrote:
> "Zoran Brlecic" <...WA7AA...@get.lost> wrote in
> message news:40208B7A.6030409@get.lost...
>
>>Roger Gt wrote:
>>
>>
>>>>About the same time when "liberal" replaced
>>>
> the
>
>>>>"communist" bogeyman in
>>>>the vocabulary of the AM talk show drug
>>>
> addicts?
>
>>>>73 .... WA7AA
>>>
>>>
>>>Now a Bogyman at all!
>>>
>>>Liberal + political power = Communist
>>>
>>>Simple math and reading the Democratic parties
>>>manifesto!
>>
>>
>>This is your mind on Limbaugh crack.
>>
>
> What's a Limbaugh?

Not much, really.

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

1839. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 07:20:59 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvq6go$1102$1@news3.infoave.net>
Source record: 100711
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

I have taken them all at one time or another so can't give you an exact comparison, for my money the advanced amateur was the hardest.

As I cut my teeth on "Hollow State", the tube stuff was easy. You haven't lived until you have a rig with 3B24's emitting their purple glow into the shack.

"Attila The Hun" <Attila@door.net> wrote in message news:1020oeb3hg6co4f@corp.supernews.com...
> Bob McConnell wrote:
>
> > That is correct. The first codeless license (Technician) was
> > introduced Feb 1991. But how did the written portions compare between
> > the amateur and commercial licenses?
> >
> > Bob McConnell
> > N2SPP
> >
>
> I remember the First Phone as being the toughest test. There were a lot
> of questions about tube type circuits, and I was only familiar with
> solid state. The amateur tests had been "modernized" with transistor
> circuit questions, but the commercial tests were on "fifties" era circuits.

1840. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 07:22:33 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvq6jn$110h$1@news3.infoave.net>
Source record: 100712

Start introducing her to everybody as "my first wife"?

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message
news:20040203231443.28384.00001274@mb-m15.aol.com...
> I realize this is a common thread but I have actually looked through the
> suggestions and still am unsure of what to get. I am getting an ic2100
mobile
> and want to put it in my mini-van. . .well . . .my wife's mini-van. It is
the
> vehicle we do the most traveling in. Rs sells a magmount scanner/2m
antenna.
> She really does not want that. She shops a lot and goes into parking
garages
> so it needs to hide or fold like the larsens. I have been told NO holes
in the
> vehicle. what is my recourse for this conundrum? Oh, and the final
kicker,
> can it be done for under 50 bucks?
>
> Thanks
> 73
> Greg
> ki4bbl@arrl.net

1841. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 07:24:22 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <ee137ed4.0402032324.7d500522@posting.google.com>
Source record: 100713
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

Bill Turner <noway@nohow.com>

"Nonsense. Go check your dictionary. We are a democratic republic."

?democratic? -&- ?republic?

! BUT WHAT IS IN A NAME - AND WHO USES IT !

The Word "Democratic" is Part of the Official Name of Many Countries:
http://www.cia.gov/cia/publications/factbook/fields/2142.html

* Some use the Word DEMOCRATIC in their Official Name:
People's Democratic Republic of Algeria
Democratic People's Republic of Korea
Lao People's Democratic Republic
Great Socialist People's Libyan Arab Jamahiriya
Democratic Republic of the Congo
Democratic Republic of Timor-Leste
Federal Democratic Republic of Ethiopia
Democratic People's Republic of Korea
Lao People's Democratic Republic
Democratic Republic of Sao Tome and Principe
Somali Democratic Republic
Democratic Socialist Republic of Sri Lanka

* Some simply use the Word PEOPLE'S in their Official Name:
People's Republic of Bangladesh
People's Republic of China

* Some still use the Word SOCIALIST in their Official Name:
Socialist Republic of Albania
Socialist Republic of Vietnam

* Some 'now' use the Word ARAB or ISLAMIC in their Official Name:
Arab Republic of Egypt
Great Socialist People's Libyan Arab Jamahiriya
Kingdom of Saudi Arabia
Syrian Arab Republic
United Arab Emirates
Transitional Islamic State of Afghanistan
Islamic Republic of Iran
Islamic Republic of Mauritania
Islamic Republic of Pakistan

NOTE: Most of the above are "Nationalistic" ONE PARTY Systems [.]

FWIW: Most of the above also use the Word "Republic" in their Names.

* * * * * GETTING BACK TO THE "USofA" * * * * *

OUR NAME IS: "United States of America"
USofA=> http://www.cia.gov/cia/publications/factbook/geos/us.html

WE ARE: Constitution-Based Federal REPUBLIC with a Representative
form of Government and a Strong DEMOCRATIC Tradition. Meaning "WE"
Democratically Elect Our Representatives and that these Elected
Representatives act for us in their respective bodies.
NOTE: This basic concept of a Representatively from of Government
also applies to the Election of the President of the USofA. We the
Citizens (Voters) of the USofA 'elect' Members of the Electroial
College: Who then Representing "US" Elect the President.
Then the Congress Receives the Determination of the Electorial
College and Comfirms the Election of the President.

Both Words: "Republic" and "Democratic" are NOT part of:

Our Official Name: "United States of America" [.]

Our Form of Government: REPUBLIC [.]

Our Elective Repressentive Process: DEMOCRATIC [.]

tfdnl! ~ RHF
= = = The Facts Do Not Lie !
.
.
= = = Matt Osborn <msosborn@spam_trap@attglobal.net>
= = = wrote in message news:<rjmm10lju4mnj8itda50n91g66jh2v9g16@4ax.com>...
> On Fri, 30 Jan 2004 19:59:06 -0800,
> Bill Turner <noway@nohow.com>
> wrote:
>
> >
> >Nonsense. Go check your dictionary. We are a democratic republic.
>
> " 2. a. A state in which the supreme power rests in the people and
> their elected representatives or officers, as opposed to one governed
> by a king or similar ruler; a commonwealth. Now also applied loosely
> to any state which claims this designation."
>
> Oxford English Dictionary
>
> Such a state is a democratic form of government.
> Saying a 'democratic republic' is akin to saying a 'vehicle chevy'.
>
.

1842. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 08:36:07 UTC
From: mlori@ieee.org
Message-ID: <ddff27eb.0402040036.22e9a9ab@posting.google.com>
Source record: 100714

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<4u1o10dm1l892vn6m81fhquicn5fe3a0lp@4ax.com>...
> On 31 Jan 2004 07:42:00 -0800, mlori@ieee.org (Maurizio) wrote:
>
> >However, the antenna that was simulated in the paper I was talking
> >about is a real antenna that has been modellized with a dedicated MOM
> >program and with the correct antenna geomety, and results have been
> >compared with measurements.
> >From this comparison it has been necessary the introduction of such
> >factor.
> >It seems to me that the 6 dB factor had to take into account all
> >losses from the transmitter to the radiated fields.
> >My concern is how this factor can be justified.
> >6 dB is a lot in terms of antenna usefull coverage distance.
> >
> >
> >Maurizio
>
> Hi Maurizio,
>
> I am a trained Metrologist with advanced studies in Microwaves. The
> measure of power (which is intimately tied to any expression of dB) is
> very difficult to achieve with great accuracy. This means that
> measurements are always suspect when they purport to confound theory.
>
> The logic of the MOM program that works at one wavelength expresses
> that it will work at all wavelengths. There is no scale determinacy
> whereby results in HF are corrupted in SHF. There is every potential
> for human error and measuring power reveals that quicker than any
> other effort.
>
> A 6dB discrepancy is a human problem, and glaringly evident.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
I agree that the human factor can be the problem for this discrepancy,
however, it would be also very interesting to know about other
experiences with such type of measurements, just to narrow the
expected uncertainty window.
(Better if in presence of complex environments)

Maurizio

1843. Re: Balun design / SWR ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 10:07:45 UTC
From: "Wolfgang K. Meister" <no.mail@please.com>
Message-ID: <8dg120pvaee0aof5q8quga4gb4clt5qu6m@4ax.com>
Source record: 100715

On Wed, 04 Feb 2004 01:35:59 GMT, " Stephen Cowell"
<scowell@sbcglobal.net> wrote:

>You need a termination resistor... you can make one
>by soldering a resistor inside a PL-259, or you can
>buy one (they are available for 50ohms as BNC format).

Steve - my setup was:

- Vectronics SWR Bridge
- the Balun (Unun) connected to the PL connector with very short wires
- other side of Balun (Unun) terminated with a 50 ohm or 450 ohm
resistor.

The wires on the Balun, on each side, are around 1,5 inch long.

Is this a solution: (?)

a.) connecting a 50 ohm resistor with wires, approx. length of the
total wire length of the Balun, to the Vectronics
total wire length: same as wires on each side of the balun ;-)
b.) note the SWR over the range
c.) connect the Balun with the termination resistor
d.) calculate the difference ?

73s
Wolfgang

1844. Washing Dishes

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 10:44:39 UTC
From: Book <book16@optusnet.com.au>
Message-ID: <4020cd18$0$4256$afc38c87@news.optusnet.com.au>
Source record: 100716

I've just assembled a 3m satellite dish which I acquired second hand a few years ago. I'm hoping to do some radio astronomy/seti work with it. The problem is, the painted steel reflector surface is quite dirty, scuffed, etc... I understand that this will not really affect signal strength but I'm sure that my neighbours (and mother) would appreciate it if the thing was a little better looking.

My question is, would polishing the surface (after a good clean) with ordinarily car polish be likely to cause any problems. I'd rather not have to re-spray the thing.

Thanks,
--
Book

1845. Re: Washing Dishes

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 11:55:22 UTC
From: 9A4DE <MakniovO9a4de@ipc.hr>
Message-ID: <bvqmij$2bg$1@sunce.iskon.hr>
Source record: 100717

"Book" <book16@optusnet.com.au> wrote in message
news:4020cd18$0$4256$afc38c87@news.optusnet.com.au...
> I've just assembled a 3m satellite dish which I acquired second hand a
> few years ago. I'm hoping to do some radio astronomy/seti work with it.
> The problem is, the painted steel reflector surface is quite dirty,
> scuffed, etc... I understand that this will not really affect signal
> strength but I'm sure that my neighbours (and mother) would appreciate
> it if the thing was a little better looking.
>
> My question is, would polishing the surface (after a good clean) with
> ordinarily car polish be likely to cause any problems. I'd rather not
> have to re-spray the thing.
>
Dont do this! 3m polished dish + solar heat = melted feed. Paint it with
matte gray paint and even then be careful and dont point it in the sun.

GL de 9A4DE

> Thanks,
> --
> Book

1846. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 12:23:43 UTC
From: N4IXT <n4ixt@mindspring.com>
Message-ID: <jv5Ub.9149$jH6.1464@newsread1.news.atl.earthlink.net>
Source record: 100718

If I'm thinking of the same RS antenna you are, it's only good to 25 watts max. Bad idea with the 2100.

I like the other suggestion of a lip mount that would put it on the hood. You other option is to get a mag mount, leave it in the back of the van and when you go somewhere together just sit it on top of the van in the rear. A pain, but she's not going to be using it anyway, and it fits your price range.

MFJ sells a decent antenna that works on 2m/440, has a little over 2 db of gain on 2m, it's about 2 and a half feet tall and is in your price range. There's a short version that's about foot tall, not much gain but being short you might be able to get away with leaving it on top of the van all the time. A fold over would be ideal, unfortunately it's way out of your budget.

Finally, if you don't want to trade in the wife on a newer model, you might consider dumping the van for a shorter vehicle!

73's

Robert / N4IXT

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message news:20040203231443.28384.00001274@mb-m15.aol.com...
> I realize this is a common thread but I have actually looked through the
> suggestions and still am unsure of what to get. I am getting an ic2100 mobile
> and want to put it in my mini-van. . .well . . .my wife's mini-van. It is the
> vehicle we do the most traveling in. Rs sells a magmount scanner/2m antenna.
> She really does not want that. She shops a lot and goes into parking garages
> so it needs to hide or fold like the larsens. I have been told NO holes in the
> vehicle. what is my recourse for this conundrum? Oh, and the final kicker,
> can it be done for under 50 bucks?
>
> Thanks
> 73
> Greg
> ki4bbl@arrl.net

1847. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 13:34:08 UTC
From: w3mf@ptd.net
Message-ID: <3jWdnXYq8NFNab3dUSdV9g@ptd.net>
Source record: 100619
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

In article <Gy0Ub.21390$AL2.12790@newssvr25.news.prodigy.com>,
not@here.net says...
>
>
>
>"Zoran Brlecic" <...WA7AA...@get.lost> wrote in
>message news:40208B7A.6030409@get.lost...
>> Roger Gt wrote:
>>
>> >>About the same time when "liberal" replaced
>the
>> >>"communist" bogeyman in
>> >>the vocabulary of the AM talk show drug
>addicts?
>> >>
>> >>73 .... WA7AA
>> >
>> >
>> > Now a Bogyman at all!
>> >
>> > Liberal + political power = Communist
>> >
>> > Simple math and reading the Democratic parties
>> > manifesto!
>>
>>
>> This is your mind on Limbaugh crack.
>>
>What's a Limbaugh?

Sounds like some kind of venereal disease.

>X-No-Archive: yes
>
>

1848. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 13:57:44 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <sT6Ub.9295$jH6.4718@newsread1.news.atl.earthlink.net>
Source record: 100620

Richard:

[snip]
> This is a very clear and readable source. Good work. I am especially
> impressed by your comment:
> "All GO TO constructs have been removed (all 961 of them!) and
> 'spaghetti' code sections untangled as far as was possible to the
> author."
>
> How long did this take?
>
> 73's
> Richard Clark, KB7QHC
[snip]

From Fortran to C, what a waste of coding time... and how many errors
were introduced in the translation? Heh, heh. :-)

Many would feel... What a crime?

What's wrong with perfectly good Fortran?

BTW... there's nothing wrong with "GOTO"s that aren't readily fixed with
simple matching "COMEFROM" statements!

Rest in Peace E. Djkystra!

;-)

--
Peter K1PO
Indialantic By-the-Sea, FL.

1849. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 14:07:29 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <401fa595_3@newsfeed.slurp.net>
Source record: 100621

Hmmm...Let's see here. She makes you buy a mini-van. She won't let you punch the hole for the antenna. She won't let you use a mag-mount. AND she won't let you spend more than $50 to find a solution.

I think you got bigger problems than your antenna, Greg...

- Mike KI6PR
El Rancho R.F., CA

"Greg Doughty" wrote
> I realize this is a common thread but I have actually looked through the
> suggestions and still am unsure of what to get. I am getting an ic2100
mobile
> and want to put it in my mini-van. . .well . . .my wife's mini-van. It is
the
> vehicle we do the most traveling in. Rs sells a magmount scanner/2m
antenna.
> She really does not want that. She shops a lot and goes into parking
garages
> so it needs to hide or fold like the larsens. I have been told NO holes
in the
> vehicle. what is my recourse for this conundrum? Oh, and the final
kicker,
> can it be done for under 50 bucks?
>
> Thanks
> 73
> Greg
> ki4bbl@arrl.net

1850. Re: TVI on Sat TV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 14:17:56 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <401fa80b_5@newsfeed.slurp.net>
Source record: 100622

Professional installation doesn't mean that it was done correctly;
"professionals" often take shortcuts, and cause many problems. Tell your
neighbor to search his system for breaks in his feedline shield, grounding
loops, or something goofy on the back of the TV set. Often, an otherwise
closed system is compromised by a sloppy installation of an outside VHF/UHF
antenna.

How new and/or clean is his TV set? What else is connected to the system?
Is there a stereo connected? How about a second TV in another part of the
house?

You may not be the problem, but his "professionally-installed" system might
be...

- Mike KI6PR
El Rancho R.F., CA

"Dennis Kaylor" wrote
> hey guys
> while working on 6 meters tonight i got a knock on my door and the guy
> said i was getting into his Satellite TV his TV is on channel 4 and his
> Dish was Professionally installed so could someone let me know what i
> can do to stop this?
> i am unfamilar with sat TV and dont know how to cure this issue
> so any info would be a big help
> thanks
>

1851. Re: Balun design / SWR ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 14:23:08 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <gf7Ub.894$gU5.466@newssvr23.news.prodigy.com>
Source record: 100623

"Wolfgang K. Meister" <no.mail@please.com> wrote in message
news:8dg120pvaee0aof5q8quga4gb4clt5qu6m@4ax.com...
> On Wed, 04 Feb 2004 01:35:59 GMT, " Stephen Cowell"
> <scowell@sbcglobal.net> wrote:
>
> >You need a termination resistor... you can make one
> >by soldering a resistor inside a PL-259, or you can
> >buy one (they are available for 50ohms as BNC format).
>
> Steve - my setup was:
>
> - Vectronics SWR Bridge
> - the Balun (Unun) connected to the PL connector with very short wires
> - other side of Balun (Unun) terminated with a 50 ohm or 450 ohm
> resistor.
>
> The wires on the Balun, on each side, are around 1,5 inch long.
>
> Is this a solution: (?)
>
> a.) connecting a 50 ohm resistor with wires, approx. length of the
> total wire length of the Balun, to the Vectronics
> total wire length: same as wires on each side of the balun ;-)
> b.) note the SWR over the range
> c.) connect the Balun with the termination resistor
> d.) calculate the difference ?

I don't think you'll get far with that... it could be
+ or - reactance and still have the same SWR.
What construction are you using for the transformers?
Are they toroidal? This is best, since they are
self-shielding... you have to watch what's in the
near-field of unshielded stuff.

--
Steve
KI5YG/EA
.

1852. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 14:30:45 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <q10220doetttudaf9jj3an42v70ebupeg6@4ax.com>
Source record: 100624

On 04 Feb 2004 04:14:43 GMT, nightowls627@aol.comnojunk (Greg Doughty) wrote:

>I realize this is a common thread but I have actually looked through the
>suggestions and still am unsure of what to get. I am getting an ic2100 mobile
>and want to put it in my mini-van. . .well . . .my wife's mini-van. It is the
>vehicle we do the most traveling in. Rs sells a magmount scanner/2m antenna.
>She really does not want that. She shops a lot and goes into parking garages
>so it needs to hide or fold like the larsens. I have been told NO holes in the
>vehicle. what is my recourse for this conundrum? Oh, and the final kicker,
>can it be done for under 50 bucks?
>
>Thanks
>73
>Greg
>ki4bbl@arrl.net

I'd go with the mag mount -- put it right in the middle of the roof --
use all that metal as your ground plane. As for your wife, if she
wants no mag mount, and no holes in the vehicle, suggest she stick
herself out the window and hold the antenna high.

Okay... I'm kidding... but only a little

Also, try the website for Lakeview ham sticks -- they have all kinds
of vehicular mounts, and reasonably priced antennas for vhf.

Bob
k5qwg

1853. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 14:52:13 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvr0ur$1hus$1@news3.infoave.net>
Source record: 100625

would you care to compare the number of platforms that have a C compiler Vs
a FORTRAN compiler?

The code is much more portable in C.

He has done the amateur community a real service and is to be commended.
Your inane comments to the contrary.

"Peter O. Brackett" <no_such_address@ix.netcom.com> wrote in message
news:sT6Ub.9295$jH6.4718@newsread1.news.atl.earthlink.net...
> From Fortran to C, what a waste of coding time... and how many errors
> were introduced in the translation? Heh, heh. :-)
>
> Many would feel... What a crime?
>
> What's wrong with perfectly good Fortran?
>
> BTW... there's nothing wrong with "GOTO"s that aren't readily fixed with
> simple matching "COMEFROM" statements!
>
> Rest in Peace E. Djkystra!
>
> ;-)
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL.
>
>

1854. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 15:01:21 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <HsKF29.AEy@bath.ac.uk>
Source record: 100626

Peter O. Brackett wrote:

>
> From Fortran to C, what a waste of coding time... and how many errors
> were introduced in the translation? Heh, heh. :-)
And how many were fixed? From what he says about his
test results, very, very few errors were introduced.
>
> Many would feel... What a crime?
Many more might feel "What crime?".
>
> What's wrong with perfectly good Fortran?
Same thing that's wrong with a perfectly good boil on your ass. 8-)
>
> BTW... there's nothing wrong with "GOTO"s that aren't readily fixed with
> simple matching "COMEFROM" statements!

Try Cobol. The 'ALTER' statement was a computed come-from!
Fortran programmers can only dream of the job security that
flowed from that.
>
> Rest in Peace E. Djkystra!
>
A good Fortran programmer can write Fortran in any language. ;-)
What Neoklis has done seems to avoid that pitfall. If he has made
all that NEC2 spaghetti more comprehensible to mere mortals then
he's done us all a really big favour.

vy 73

Andy, M1EBV

1855. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 15:07:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40210b9b_4@corp.newsgroups.com>
Source record: 100627
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

W4JLE wrote:
> As I cut my teeth on "Hollow State", the tube stuff was easy. You haven't
> lived until you have a rig with 3B24's emitting their purple glow into the
> shack.

Along with the VR-150's pulsating to the sound of your voice on AM.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1856. Re: ham equiptment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 15:31:27 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <9qSdnToTfL3OjbzdRVn-sA@comcast.com>
Source record: 100628

I would temporarily bypass any junk he may have between the sat receiver and TV. If it has to be at RF, use a cable with screw on F connectors, not the push on. If he has a Radio Shack distribution amplifier, tell him to throw it in the garbage.

A couple of years ago the cable company came to my house, and said I was radiating my cable signal. Problems were the Radio Shack amp. and cables with push on F connectors.

BTW, Professional install does not mean anything. When the cable company installed my cable modem, the connector fell of the cable after a few weeks.

Did the same TV pick you up before the sat dish?

Tam/WB2TT
"dvari" <dmvari@adelphia.net> wrote in message
news:HdmdnT8To_z8xb3dRVn-gg@adelphia.com...
> For sale
> MFJ versa tunerIII model mfj-962c works great,scratch on the top $150.00
> or B/O.
>
> Workman 120mHz tru 500mHz SWR/Wattmeter 3 power ranges 10,100,500 watts
> used very little $40.00 or B/O.
>
> Wiring harness for any module for Yeasu FT-726r rig $25.00 or B/O.
>
>
> Heathkit oscilloscope needs repair $60.00 or B/O.
> All items DO NOT include shipping and insurance.From zip code 14215
Buffalo,
> New York.Reply this packet or email david_vari@yahoo.com or phone
> 1-716-838-2164 before 2pm mon-fri.Any time weekends.
> Thank you de Dave-N2RHL.
>
>

1857. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 16:14:39 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <PT8Ub.174501$5V2.875722@attbi_s53>
Source record: 100629

Sorry about that, missed the period before co

http://web.ukonline.co.uk/g3ldo

Art

"Yuri Blanarovich" <k3bu@aol.comnoUsama> wrote in message
news:20040203225546.15185.00000358@mb-m06.aol.com...
> >
> >Yuri, You might want to look at
> > http://web.ukonlineco.uk/g3ldo
> >as there is quite a bit of interchange between various hams
> >on measuring coils.
> >It may give you some ideas for when the snow melts
> >Regards
> >Art
> >
>
> that link don't worky

1858. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 16:22:49 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <t%8Ub.215632$I06.2376894@attbi_s01>
Source record: 100630
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

W4JLE wrote:
> I have taken them all at one time or another so can't give you an exact
> comparison, for my money the advanced amateur was the hardest.
>
> As I cut my teeth on "Hollow State", the tube stuff was easy. You haven't
> lived until you have a rig with 3B24's emitting their purple glow into the
> shack.
>
> SNIP

Or, 866's

1859. Re: TVI on Sat TV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 16:38:04 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <Md9Ub.220131$xy6.1133475@attbi_s02>
Source record: 100631

Before you get involved with anything make absolutely sure your rig is 100% clean. That means no harmonics, no overmodulation, no 3rd order products. Find a friend/ham who has a spectrum analyzer and check your output.

If your signal is clean then advise your neighbor to contact the 'professional' who has the responsibility to clean up the problem at your neighbor's. You may advise the 'professional' that better grade cables, ferrites, chokes, etc. may help. But DON'T touch your neighbor's installation.

Finally, regarding VCRs, and many tv's are now coming with them built in, that is a manufacturer's problem. A VCR is not a receiver. A built-in poorly shielded VCR will be virtually impossible to clean up. [I had a Panasonic TV with built in VCR and when my power output exceeded 40 watts the VCR just totally shut down the tv image.]

Deacon Dave, W1MCE

Dennis Kaylor wrote:

> hey guys
> while working on 6 meters tonight i got a knock on my door and the guy
> said i was getting into his Satellite TV his TV is on channel 4 and his
> Dish was Professionally installed so could someone let me know what i
> can do to stop this?
> i am unfamilar with sat TV and dont know how to cure this issue
> so any info would be a big help
> thanks
>

1860. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 17:05:30 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402040905.555dc9b@posting.google.com>
Source record: 100632

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40207ad3_5@corp.newsgroups.com>...
> Mark Keith wrote:
>
> > Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> >
> >>I *don't* expect such a coil to simulate reality. That's the whole problem.
> >>The artificial lumped load software doesn't match reality. It only
> >>approaches reality for "physically small" coils. Once again, a 75m Texas
> >>Bugcatcher coil is not physically small.
> >
> > It's physically small enough that any error should be small. IE: 1 db
> > or less.
>
> A 13% error is small? The error is even larger than that for the current
> at the top of the coil.

I don't know where this 13% comes from, but how many db difference
would it make in the modeling results? I bet it's about 1 or less. If
you have an 8 ft antenna, with a 1 ft tall coil, no matter what the
current taper is across the coil, it will not drastically effect the
modeling results. At least 3 or 4 people have shown this. The coil is
not a large enough portion of the overall antenna. And any taper of
the current along that one foot section is not going to make a
difference more than about 1 db. Usually less.
>

>
> > Seems to me, if this is
> > true, there should be a position that places maximum current at the
> > top of the coil, not bottom.
>
> I have already said multiple times, depending upon where the coil is
> placed, the net current into the coil can be less than, equal to, or greater
> than the net current coming out. It all depends upon the phasor sum of the
> forward current and reflected current. It can be zero or maximum or
> anything in between depending upon where the coil is placed. For Kraus'
> phase-reversing coil, the net current is zero at both ends and maximum
> in the middle of the coil.

I know you have said it multiple times, but so far I don't recollect
anyone actually measuring a real world coil, and finding max current
at the top of the coil. That is what is bothering me. MK

1861. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 17:17:54 UTC
From: massimosignorini@libero.it
Message-ID: <b2af2489.0402040917.514fefcb@posting.google.com>
Source record: 100633

Dave Shrader <david.shrader@comcast.net> wrote in message
news:<MIRTb.84026$U%5.449628@attbi_s03>...
> I sent Massimo direct mail asking if he really meant 13.56 MHz. He
> responded, YES!
>
> I still wonder if he is having a language problem understanding MHz and
> GHz!!

So, it is a fact that English is not my language, but when I say
MegaHertz I mean MegaHertz (= 1000000 Hz).
I know that the wavelenght in too big in 13.56 MHz, but for this
reason I posted my topic.
I did the test with VECTORIAL NETWORK ANALYZER mod. 8753ES HP Agilent
Technologies.
I don't want to say anything against the Phisics, anyway the results
are good for my use (RFID reader antenna).

Regards,
Massimo (from Italy)

1862. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 18:09:56 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40213574.B8DA3BCC@uci.edu>
Source record: 100634

Cecil Moore wrote:
> I have already said multiple times, depending upon where the coil is
> placed, the net current into the coil can be less than, equal to, or greater
> than the net current coming out.

Which end of the coil is the input and which end is the output?

73, Jim AC6XG

1863. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 18:28:13 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40213a8a_8@corp.newsgroups.com>
Source record: 100635

Mark Keith wrote:
> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>A 13% error is small? The error is even larger than that for the current
>>at the top of the coil.
>
> I don't know where this 13% comes from, but how many db difference
> would it make in the modeling results?

Uh Mark,
1 dB error = 13% error 10^(0.1) = 1.26
2 dB error = 29% error 10^(0.2) = 1.58
3 dB error = 50% error 10^(0.3) = 2.00

> I know you have said it multiple times, but so far I don't recollect
> anyone actually measuring a real world coil, and finding max current
> at the top of the coil. That is what is bothering me. MK

Nobody builds an antenna that way but consider the following monopole.
Ground is at the left, top is at the right. Each of the following
1/4WL sections are electrical 1/4WL's.

1/4WL coil
Gnd-FP------1/4WL tubing------//////////------1/4WL stinger------

max--*-------------------------------*------------------------
* * *
* * *
Current min-------------------*---------------------------------*

The current at the feedpoint will be high. The current at the bottom of
the coil will be low. The current at the top of the coil will be high.
The current at the tip of the antenna will be low.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1864. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 18:34:05 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40213bed_8@corp.newsgroups.com>
Source record: 100637

Jim Kelley wrote:

> Cecil Moore wrote:
>>I have already said multiple times, depending upon where the coil is
>>placed, the net current into the coil can be less than, equal to, or greater
>>than the net current coming out.
>
> Which end of the coil is the input and which end is the output?

The DC model strikes again. For AC, current flows out of the coil
input just as often as it flows in and into the coil output just
as often as it flows out. :-)

But by convention the 'input' of the coil is the end closest to
the antenna feedpoint.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1865. Re: Balun design / SWR ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 18:34:47 UTC
From: k7itm@aol.com
Message-ID: <3200347.0402041034.7a59f7a6@posting.google.com>
Source record: 100636

Wolfgang K. Meister <no.mail@please.com> wrote in message
news:<8dg120pvaee0aof5q8quga4gb4clt5qu6m@4ax.com>...
...
> Is this a solution: (?)
>
> a.) connecting a 50 ohm resistor with wires, approx. length of the
> total wire length of the Balun, to the Vectronics
> total wire length: same as wires on each side of the balun ;-)
> b.) note the SWR over the range
> c.) connect the Balun with the termination resistor
> d.) calculate the difference ?

No, certainly not! It's a complex quantity, R+jX, that determines the scalar quantity, SWR. If you add two complex quantities, each of which has a 2:1 SWR, you could come out with a 4:1 SWR, or you could come out with a 1:1 SWR, or anything in between. So the difference between two SWR readings will only serve to confuse you.

Also note that it is not just "wires" you are connecting between the meter and the load, but a transmission line. The spacing of the wires can make a large difference in the result, especially as they become a significant fraction of a wavelength long.

If you've tested the SWR meter with a few known loads and it's giving you the right readings, then I'd say it will probably about as accurately tell you the SWR of the impedance presented to it by the balun and whatever load you put on the other side of the balun. If the SWR meter does not give you the right results with known loads, then I'd say you are firing shots in the dark.

Cheers,
Tom

(For the purists and nit-pickers, as used above, SWR for any load impedance Zload is defined as (1+|r|)/|(1-|r|)|, where r=(Zload-Zref)/(Zload+Zref), and Zref is simply the reference impedance to which the meter is (assumed to be) calibrated.)

1866. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 18:37:59 UTC
From: tdonaly@aol.com
Message-ID: <20040204133759.26514.00001316@mb-m07.aol.com>
Source record: 100638

Mark wrote in reply to Cecil,
(snip)
>>
>> I have already said multiple times, depending upon where the coil is
>> placed, the net current into the coil can be less than, equal to, or
>greater
>> than the net current coming out. It all depends upon the phasor sum of the
>> forward current and reflected current. It can be zero or maximum or
>> anything in between depending upon where the coil is placed. For Kraus'
>> phase-reversing coil, the net current is zero at both ends and maximum
>> in the middle of the coil.
>
>I know you have said it multiple times, but so far I don't recollect
>anyone actually measuring a real world coil, and finding max current
>at the top of the coil. That is what is bothering me. MK
>

Hi Mark,
Cecil doesn't actually have to measure anything, since he's already convinced
he's right because his arguments agree with the theory he made up in his head.
Yuri is supposed to measure loading coils using fish tank thermometers and
such. The real test will be when someone tries to make a new, improved
antenna based on the belief that the current taper on the loading coil
of a physically short antenna makes a tinker's damn worth of difference
in the far field radiation of said antenna.
73,
Tom Donaly, KA6RUH

1867. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 18:58:46 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402140E6.5EC77115@uci.edu>
Source record: 100640

Cecil Moore wrote:
>
> Jim Kelley wrote:
>
> > Cecil Moore wrote:
> >>I have already said multiple times, depending upon where the coil is
> >>placed, the net current into the coil can be less than, equal to, or greater
> >>than the net current coming out.
> >
> > Which end of the coil is the input and which end is the output?
>
> The DC model strikes again.

A poor craftsman always blames his tools.

> But by convention the 'input' of the coil is the end closest to
> the antenna feedpoint.

And so what you're saying is that by convention RF current flows "in" to
one end, and then "out" of the other?

I must admit I don't like the sound of that one bit. Sounds like you're
describing the direction a "wave" is "traveling", when we know that the
"wave" is really just "standing" there. :-)

73, Jim AC6XG

1868. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 19:06:12 UTC
From: dplatt@radagast.org
Message-ID: <1022gl4qfr5cv4e@corp.supernews.com>
Source record: 100639

In article <sT6Ub.9295$jH6.4718@newsread1.news.atl.earthlink.net>,
Peter O. Brackett <no_such_address@ix.netcom.com> wrote:

>From Fortran to C, what a waste of coding time... and how many errors
>were introduced in the translation? Heh, heh. :-)

"Make your peace with FORTRAN, for it is as perennial as crabgrass."

>Many would feel... What a crime?
>
>What's wrong with perfectly good Fortran?
>
>BTW... there's nothing wrong with "GOTO"s that aren't readily fixed with
>simple matching "COMEFROM" statements!

Heh. Real programmers used Assigned GOTO statements (or the even
studlier COBOL "ALTER" verb).

(grin, duck, run away very very fast....)

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1869. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 19:21:44 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <bDbUb.223809$na.362219@attbi_s04>
Source record: 100641

Massi wrote:

SNIP

> So, it is a fact that English is not my language, but when I say
> MegaHertz I mean MegaHertz (= 1000000 Hz).

Massimo, no offense was intended. I was just looking to make sure you
meant MHz.

Sorry if my post offended you. If so I ask your forgiveness.

Deacon Dave

SNIP

1870. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 19:28:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402148b3_2@corp.newsgroups.com>
Source record: 100642

Tdonaly wrote:
> Mark wrote in reply to Cecil,
>>I know you have said it multiple times, but so far I don't recollect
>>anyone actually measuring a real world coil, and finding max current
>>at the top of the coil. That is what is bothering me. MK

> Cecil doesn't actually have to measure anything, since he's already convinced
> he's right because his arguments agree with the theory he made up in his head.

Well, just so you guys can understand what I am talking about, here is
an EZNEC file that clearly demonstrates low current at the bottom of
the coil and high current at the top of the coil.

http://www.qsl.net/w5dxp/sqcoil.ez

> The real test will be when someone tries to make a new, improved
> antenna based on the belief that the current taper on the loading coil
> of a physically short antenna makes a tinker's damn worth of difference
> in the far field radiation of said antenna.

Nice try, but that's just a copout diversion because the far field
radiation is irrelevant to the argument over current through a
loading coil.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1871. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 19:36:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40214a79_2@corp.newsgroups.com>
Source record: 100643

Jim Kelley wrote:
> And so what you're saying is that by convention RF current flows "in" to
> one end, and then "out" of the other?

Yes, that's the DC convention adopted to AC. Just be sure to put a
dot on the input side so everyone will know it's the input reference. :-)
That convention also applies to baluns and transformers.

> I must admit I don't like the sound of that one bit. Sounds like you're
> describing the direction a "wave" is "traveling", when we know that the
> "wave" is really just "standing" there. :-)

I didn't invent the 'AC current flowing away from the source' convention
but most of the tools and concepts that I was taught assume such. It
would be extremely difficult to introduce a new and different convention.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1872. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 19:37:08 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402149E4.28DE56BE@uci.edu>
Source record: 100644

Tdonaly wrote:

> The real test will be when someone tries to make a new, improved
> antenna based on the belief that the current taper on the loading coil
> of a physically short antenna makes a tinker's damn worth of difference
> in the far field radiation of said antenna.

That's right. Cavemen didn't need to understand fire in order to make
fire. They knew everything they needed to know about it. In fact, fire
has not changed one iota with the advent of modern science.

1873. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 20:08:54 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40215156.271F51DC@uci.edu>
Source record: 100646

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > And so what you're saying is that by convention RF current flows "in" to
> > one end, and then "out" of the other?
>
> Yes, that's the DC convention adopted to AC. Just be sure to put a
> dot on the input side so everyone will know it's the input reference. :-)
> That convention also applies to baluns and transformers.

The dot indicates phase polarity.

> > I must admit I don't like the sound of that one bit. Sounds like you're
> > describing the direction a "wave" is "traveling", when we know that the
> > "wave" is really just "standing" there. :-)

> I didn't invent the 'AC current flowing away from the source' convention
> but most of the tools and concepts that I was taught assume such.

Maybe they taught this "convention" in grade school back in the
'40's? I don't know what application it might have here. Maybe you
could point to somewhere in 95-1 where they make use of this
"convention". Or indicate how it might apply to a coil having
alternating current going "in" from both ends.

73, Jim AC6XG

1874. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 20:11:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402152b5_1@corp.newsgroups.com>
Source record: 100645

Tdonaly wrote:
> Cecil doesn't actually have to measure anything, since he's already convinced
> he's right because his arguments agree with the theory he made up in his head.

Forgot to post the accompanying graphic which is:

http://www.qsl.net/w5dxp/sqcoil.gif

How do you explain that current distribution with current minimum at
the bottom of the coil and current maximum at the top of the coil?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1875. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 20:48:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40215b7f_2@corp.newsgroups.com>
Source record: 100647

Jim Kelley wrote:
> The dot indicates phase polarity.

A necessity when using DC models for AC circuits. Hint: Balanced
AC has no objective fixed polarity. It is all subjective. (Never
mind that current holes flow out of the '+' terminal of a battery. :-)

> Maybe they taught this "convention" in grade school back in the
> '40's? I don't know what application it might have here. Maybe you
> could point to somewhere in 95-1 where they make use of this
> "convention". Or indicate how it might apply to a coil having
> alternating current going "in" from both ends.

If you want to see current flowing out of both ends of a coil at the
same time just run http://www.qsl.net/w5dxp/sqcoil.ez at 29 MHz.

Current into the bottom of the coil has a phase angle of -174 degrees,
i.e. referenced to the source, it is flowing toward the source. How
could it be otherwise? That point is ~1/2WL away from the source.

Current out of the top of the coil has a phase angle of -6 degrees,
i.e. referenced to the source, it is flowing away from the source.
How could it be otherwise? That point is ~1WL away from the source.

If you play with the parameters, I'm sure you can shift that -174
degrees to -180 degrees and that -6 degrees to zero degrees.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1876. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 20:53:23 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40215BC3.FCFD1528@uci.edu>
Source record: 100651

Cecil,

I was just trying to help keep you from sounding like an idiot.

Never mind. I'll stop.

Jim

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > The dot indicates phase polarity.
>
> A necessity when using DC models for AC circuits. Hint: Balanced
> AC has no objective fixed polarity. It is all subjective. (Never
> mind that current holes flow out of the '+' terminal of a battery. :-)
>
> > Maybe they taught this "convention" in grade school back in the
> > '40's? I don't know what application it might have here. Maybe you
> > could point to somewhere in 95-1 where they make use of this
> > "convention". Or indicate how it might apply to a coil having
> > alternating current going "in" from both ends.
>
> If you want to see current flowing out of both ends of a coil at the
> same time just run http://www.qsl.net/w5dxp/sqcoil.ez at 29 MHz.
>
> Current into the bottom of the coil has a phase angle of -174 degrees,
> i.e. referenced to the source, it is flowing toward the source. How
> could it be otherwise? That point is ~1/2WL away from the source.
>
> Current out of the top of the coil has a phase angle of -6 degrees,
> i.e. referenced to the source, it is flowing away from the source.
> How could it be otherwise? That point is ~1WL away from the source.
>
> If you play with the parameters, I'm sure you can shift that -174
> degrees to -180 degrees and that -6 degrees to zero degrees.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1877. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 20:56:22 UTC
From: tdonaly@aol.com
Message-ID: <20040204155622.19241.00000978@mb-m26.aol.com>
Source record: 100649

Cecil wrote,
>
>Tdonaly wrote:
>> Cecil doesn't actually have to measure anything, since he's already
>convinced
>> he's right because his arguments agree with the theory he made up in his
>head.
>
>Forgot to post the accompanying graphic which is:
>
>http://www.qsl.net/w5dxp/sqcoil.gif
>
>How do you explain that current distribution with current minimum at
>the bottom of the coil and current maximum at the top of the coil?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

That's a neat picture, Cecil. How did you make the picture of the coil?
Of course, you can do the same thing with a coil, *or a capacitor* and a
couple of identical tank circuits. Actually, why make them either in or
out of phase? That's boring. You can make the phase across the
inductor/capacitor
any value you want between 180 and minus 180 just by varying the
frequency. Check out the currents in the tank circuits when they're 90
degrees out of phase with one another.
The length of a capacitor is very small, Cecil. How do expect something that

small to be able to change the current between two tank circuits 180 degrees?
73,
Tom Donaly, KA6RUH

1878. Re: NEC4 & MF antenna modelling with earth

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 20:56:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bkm220lfsvj6jmu65djnrdmu1oiqt3flh2@4ax.com>
Source record: 100648

On 4 Feb 2004 00:36:07 -0800, mlori@ieee.org (Maurizio) wrote:

>> A 6dB discrepancy is a human problem, and glaringly evident.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>Hi Richard,
>I agree that the human factor can be the problem for this discrepancy,
>however, it would be also very interesting to know about other
>experiences with such type of measurements, just to narrow the
>expected uncertainty window.
>(Better if in presence of complex environments)
>
>Maurizio

Hi Maurizio,

This is best achieved by establishing a standard with as few variables as possible, then varying them to determine their range of error contribution. I am sure this is already evident to you, however experience in going through the tests can reveal how probable those sources of error may be.

You can quickly accumulate 3dB error in simply not providing the correct load to the power (dB) determining measurement. Temperature too can upset readings, but often as not, the simple presence of the observer disrupts many things. The source is all to often taken for granted, and all too often has frequency products that add to the power reading, but are not in the bandwidth of interest. The list goes on....

73's
Richard Clark, KB7QHC

1879. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 21:09:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5mn2201jkh83305bqf37fs4990o09tfsia@4ax.com>
Source record: 100650

On Wed, 04 Feb 2004 13:28:38 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>the far field radiation is irrelevant to
[renders]
>the argument over current through a
>loading coil
[a piss-ant argument]

1880. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 21:14:44 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <8hdUb.92099$U%5.471242@attbi_s03>
Source record: 100652

Cecil
Seems like the model is lacking in all the details
and frankly I feel I am looking at an intentianal sham for some reason
For instance you do not show coupling to ground which is why I am suspicious
since resonance is unavoidably affected by nearby objects as well as ground
I f you drew your model the same way you portray
your G5RV or Zepp type dipole to accomodate
the loss of coupling to ground I would feel a lot better.
You also have not specified a a frequency of use that
is also conspiciuos now I have been moved to a suspicious aproach especially
when you interchange wavelength and size of inductance at the same time
ignoring the coupling effects of said items which affect phase change..Plus
ignors the radiation effect even tho it may be self cancelling since you
show it as zero length !
Methinks I have to study the model more for a troubling omission like the
addition of a inductance that is dimensionless and large compared to a model
that ignores factors such as coupling.and the like.
No disrespect intended
Regards
Art
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:402148b3_2@corp.newsgroups.com...
> Tdonaly wrote:
> > Mark wrote in reply to Cecil,
> >>I know you have said it multiple times, but so far I don't recollect
> >>anyone actually measuring a real world coil, and finding max current
> >>at the top of the coil. That is what is bothering me. MK
>
> > Cecil doesn't actually have to measure anything, since he's already
convinced
> > he's right because his arguments agree with the theory he made up in his
head.
>
> Well, just so you guys can understand what I am talking about, here is
> an EZNEC file that clearly demonstrates low current at the bottom of
> the coil and high current at the top of the coil.
>
> http://www.qsl.net/w5dxp/sqcoil.ez
>
> > The real test will be when someone tries to make a new, improved
> > antenna based on the belief that the current taper on the loading coil
> > of a physically short antenna makes a tinker's damn worth of difference

> > in the far field radiation of said antenna.
>
> Nice try, but that's just a copout diversion because the far field
> radiation is irrelevant to the argument over current through a
> loading coil.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1881. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 21:17:31 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <zf6dneV1B7fz_LzdRVn-vw@comcast.com>
Source record: 100653

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401a6bf2$1_1@corp.newsgroups.com...
> Dr. Daffodil Swain wrote:
> > Sounds like too much work! The loss of 50 Ohm feedline at 80 and 40
meters
> > isn't worth worrying about.
>
> For 275 ft. of RG-58 with an SWR of 1:1 on 40m, one would lose
> ~half of one's power in the feedline. With an SWR of 10:1, one
> would lose ~75% of one's power in the feedline.
> --
> 73, Cecil http://www.qsl.net/w5dxp

275 feet of garden variety RG8Foam would have a loss of about 1.5 db at 10
MHz. LMR400 about 1db. Do NOT use RG213.

Tam/WB2TT

1882. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 21:21:47 UTC
From: Steve GOG <FN30@optonlne.net>
Message-ID: <LndUb.8895$%93.2445036@news4.srv.hcvlny.cv.net>
Source record: 100654

one thing to remember is the shorter the antenna in most cases will limit its effective range. do you intend on using it more local or for longer range.?

why are you ot alound to put holes in the van? is it a lease
you can always unscrew the whip from the mount for easy storage or also fold over the whip on some models. have you looke at th window clip type mounts?

check out hamstop.com, they seem to have some good prices on antennas, and you can get what you need for 50 or less there

im trying to put some POSITIVE info, instead of the get a new wife, new car things people have said. lets be realistic

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message news:20040203231443.28384.00001274@mb-m15.aol.com...
> I realize this is a common thread but I have actually looked through the
> suggestions and still am unsure of what to get. I am getting an ic2100 mobile
> and want to put it in my mini-van. . .well . . .my wife's mini-van. It is the
> vehicle we do the most traveling in. Rs sells a magmount scanner/2m antenna.
> She really does not want that. She shops a lot and goes into parking garages
> so it needs to hide or fold like the larsens. I have been told NO holes in the
> vehicle. what is my recourse for this conundrum? Oh, and the final kicker,
> can it be done for under 50 bucks?
>
> Thanks
> 73
> Greg
> ki4bbl@arrl.net

1883. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 21:45:40 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <8KdUb.10668$GO6.5985@newsread3.news.atl.earthlink.net>
Source record: 100655

"Neoklis" <5b4az@qsl.net> wrote in message
news:e637e579.0402030637.6941da71@posting.google.com...
> Hi all,
>
> I have just completed a translation of NEC2 from fortran to C which
> was done "manually" and thus has no dependency on f2c and similar auto
> translators. I have also incorporated changes to the source code so
> that built-in limitations are removed as far as possible and the use
> of file storage for solving complex structures is not needed.
>
> More info and source/binary packages form the nec2 archives:
>
> http://www.qsl.net/wb6tpu/swindex.html
>
> Please note my email address is: neoklisk-AT-cytanet-DOT-com-DOT-cy
>
> Best regards
>
> Neoklis - 5B4AZ

1884. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 22:05:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40216d84_8@corp.newsgroups.com>
Source record: 100656

Jim Kelley wrote:
> I was just trying to help keep you from sounding like an idiot.

The math model seduction is apparently worse than I thought.
If you are talking about my assertion that phase and direction of current flow are related, I suggest you demonstrate 0+j0.5 amps of current and tell us which of the two possible directions in a transmission line that imaginary current is flowing.

So you disagree that 1 amp at 180 degrees is flowing in the opposite direction to 1 amp at zero degrees? If not, why do you disagree that 1 amp at 170 degrees is flowing in the opposite direction of 1 amp at 10 degrees? The direction of current flow is the cosine of the phase angle.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1885. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 22:07:45 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40216dfe_8@corp.newsgroups.com>
Source record: 100657

Tdonaly wrote:
> That's a neat picture, Cecil. How did you make the picture of the coil?

It is modeled in EZNEC. 'VA' shows a picture.

> Of course, you can do the same thing with a coil, *or a capacitor* and a
> couple of identical tank circuits.

Then why have you been arguing loud and long against such a possibility?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1886. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 22:12:46 UTC
From: VE1BLL@rac.ca
Message-ID: <8a615218.0402041412.3281c58d@posting.google.com>
Source record: 100658

"Dave Shrader"
> ...asking if he really meant 13.56 MHz...

"John Smith"
> Yes, GHz would make much more sense.

Except that 13.56 MHz is a very, very well known (common) ISM
frequency.

...well, perhaps not as well known as it might be... ;-)

Amusingly, most of the 30 Google hits on "13.56 GHz" are errors where
people have incorrectly assumed GHz for such RFID usage.

Stripline at HF ?? Geesh... I supposed if you've got the 'real
estate'.

1887. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 22:13:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40216f50_8@corp.newsgroups.com>
Source record: 100659

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>> the far field radiation is irrelevant to the argument over current
>> through a loading coil
>
> [a piss-ant argument]

The original question was: Is there a current taper through a real-world loading coil. The far-field was not even introduced into the argument until the guru side realized they had lost the argument. Changing the subject of an argument is the oldest logical diversion known to man.

Did you eat the lemons, Richard?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1888. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 22:14:54 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40216EDE.F38A0E80@uci.edu>
Source record: 100662

Cecil Moore wrote:
> So you disagree that 1 amp at 180 degrees is flowing in the opposite
> direction to 1 amp at zero degrees? If not, why do you disagree that
> 1 amp at 170 degrees is flowing in the opposite direction of 1 amp
> at 10 degrees? The direction of current flow is the cosine of the
> phase angle.

wow. I thought just a minor tweek was all that was required. I was
wrong.

Like I said, Cecil. Never mind.

jk

1889. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 22:18:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4021706b$1_8@corp.newsgroups.com>
Source record: 100661

Art Unwin KB9MZ wrote:
> Seems like the model is lacking in all the details
> and frankly I feel I am looking at an intentianal sham for some reason

Sorry you feel that way, Art. That is the output graphic from EZNEC.

> For instance you do not show coupling to ground which is why I am suspicious
> since resonance is unavoidably affected by nearby objects as well as ground

If there's something wrong, blame EZNEC. I am just reporting what
EZNEC sez.

> You also have not specified a frequency of use ...

Of course I have, Art, it's in the .ez file. Since antennas are scalable,
the frequency is irrelevant to the diagram. Please download the .ez file.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1890. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 22:18:41 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <5deUb.10717$GO6.2327@newsread3.news.atl.earthlink.net>
Source record: 100660

"JLE":

[snip]
> The code is much more portable in C.
[snip]

I disagree.... where are the equivalent high quality field proven
mathematical
subroutine libraries?

Jeesh... software "fads"...

Just because some computer jockey say it's fashionable
ya'll follow along like sheep to the slaughter!

Shades of Bill Gates crappy bloatware. His empire would have collapsed
long ago if not for us hard working hardware Engineers. It's that
slavish devotion to software "fashion" that we see exhibited in this thred
that created Gates evil empire in the first place!

What do people see in "C"? :-)

[snip]
> He has done the amateur community a real service and is to be commended.
> Your inane comments to the contrary.
[snip]

I agree the OP has done some heavy lifting, but done us service!

Ummm. Nahhh!

How many bugs has he introduced in a perfectly fine program?

Compared to C, modern Fortran is much more suitable in all aspects such as
precision, speed and clairity of purpose and understanding in alignment to
the
original mathematics. Fortran has "native" support for complex and
vector/matrix
arithmetic all advantages over C when applied to large mathematical
manipulations
involving complex arithmetic and multi-dimensional complex arrays such as in
NEC.

C is a system programming language, not a mathematical programming language!

A skilled tradesman uses the right tool for the right job.

There are jobs for which C is quite suitable, but large mathematical
operations

like NEC is not one of them! C seems simple, but hey... where are all of
those
extensive widely proven highly accurate math subroutine libraries for C!
Ugh!

The problem with these danged "so-called" computer scientists is that they
all want to make every tool a religion and don't know which tool to use
for which job.

Why use a sledge hammer to open a walnut? Or a saw to slice bread?

Hey... get real, we Hardware Engineers never let "slide rule scientists"
tell us how
to compute, why now then do we let these so-called "computer scientists"
tell us we are using the wrong tools, when we know better!

Wake up... Don't fall for their stupid con games! They'l soon all be
replaced
by GUI visual code generating automatons anyway!

Converting NEC to Fortran 90/95 would have made more sense than
converting it to C.

I agree, FORTRAN (66 and 77) are old and showing their age. But that's
not the point! FORTRAN should be updated to Fortran, not to C!

Modern Fortran supports all of the old FORTRAN code, and modern concepts
suporting GOTO-less efficient software engineering friendly control
structures.

There is no portability problem, Fortran 90/95 is a very modern language,
with all
of the "modern" structures one expects but without any of the downsides that
non-mathematical languages such as C exhibit when pitted against tough
mathematical
operations.

Fortran 90/95 also has widely available very fast proven optimizing
compilers, some
of them are even free.

Long live Fortran...

--
Peter K1PO
Indialantic By-the-Sea, FL

>
> "Peter O. Brackett" <no_such_address@ix.netcom.com> wrote in message
> news:sT6Ub.9295$jH6.4718@newsread1.news.atl.earthlink.net...
> > From Fortran to C, what a waste of coding time... and how many errors
> > were introduced in the translation? Heh, heh. :-)
> >
> > Many would feel... What a crime?

> >
> > What's wrong with perfectly good Fortran?
> >
> > BTW... there's nothing wrong with "GOTO"s that aren't readily fixed with
> > simple matching "COMEFROM" statements!
> >
> > Rest in Peace E. Djkystra!
> >
> > ;-)
> >
> > --
> > Peter K1PO
> > Indialantic By-the-Sea, FL.
> >
> >
>
>

1891. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 22:46:57 UTC
From: tdonaly@aol.com
Message-ID: <20040204174657.17062.00001539@mb-m03.aol.com>
Source record: 100663

Peter wrote,
>
>Modern Fortran supports all of the old FORTRAN code, and modern concepts
>suporting GOTO-less efficient software engineering friendly control
>structures.
>
>There is no portability problem, Fortran 90/95 is a very modern language,
>with all
>of the "modern" structures one expects but without any of the downsides that
>non-mathematical languages such as C exhibit when pitted against tough
>mathematical
>operations.
>
>Fortran 90/95 also has widely available very fast proven optimizing
>compilers, some
>of them are even free.
>
>Long live Fortran...
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL
>

Peter... Uh, Peter? You're free to do all the coding yourself if you'd
like to. Converting NEC to Fortran 90/95 would be a good project
for you in your retirement.
73,
Tom Donaly, KA6RUH

1892. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 22:56:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lft2205sipdll8kje82oiqvctrmgkmagai@4ax.com>
Source record: 100664

On Wed, 04 Feb 2004 16:13:22 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Richard Clark wrote:
>>the far field radiation is irrelevant to
>[renders]
>>the argument over current through a
>>loading coil
>[a piss-ant argument]
>
>The original question was: Is there a current taper through a real-world
>loading coil.
a piss-ant question

From: Yuri Blanarovich (k3bu@aol.comnoSaddam)
Subject: Re: Current in antenna loading coils controversy
Date: 2003-10-29 20:03:10 PST
"efficiency is greatly affected"
...
Date: 2003-10-29 20:07:09 PST
"Significant impact on modeling software. If the stuff is not
accomodated properly, then results (mainly efficiency) are way
off."
Date: 2003-10-30 15:36:22 PST
"the stronger the field and louder signal."

>The far-field was not even introduced into the argument

All claims have been shown to be hyper-ventilation:
a piss-ant argument.

1893. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 23:02:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40217aef_7@corp.newsgroups.com>
Source record: 100665

Jim Kelley wrote:
> Cecil Moore wrote:
>>So you disagree that 1 amp at 180 degrees is flowing in the opposite
>>direction to 1 amp at zero degrees? If not, why do you disagree that
>>1 amp at 170 degrees is flowing in the opposite direction of 1 amp
>>at 10 degrees? The direction of current flow is the cosine of the
>>phase angle.
>
> wow. I thought just a minor tweek was all that was required. I was
> wrong.
>
> Like I said, Cecil. Never mind.

This keeps happening over and over. Can you at least answer the following questions? In what direction is current at 170 degrees flowing relative to the source (assumed to be at zero degrees)? In what direction is current at 10 degrees flowing with respect to the source. If those are not opposite directions, would you please explain otherwise?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1894. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 23:04:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40217b5e_7@corp.newsgroups.com>
Source record: 100667

Richard Clark wrote:
> a piss-ant question

Well, you are entitled to your own opinion. The argument has been
going on for months. Some people obviously don't share your opinion.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1895. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 23:08:21 UTC
From: Steve Stone <spfleck@zzcitlinkzz.net>
Message-ID: <FXeUb.14160$3h6.12836@news02.roc.ny>
Source record: 100666
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

When I took my no code tech license in 1993 I didn't have to do what you did in 1957.

But I did spend years in college attaining a degree in Electronic Technology , learned all about tubes and electron theory, electronics related math, drew schematics, learned about solid state and early digital IC's, op amps, did work study doing bench work at a BSR factory, learned how to repair motracs and radar units in a professors garage shop (he was a ham and the local service guy for the radios the cops used). Moved into the working world in the late 70's , Trained on teletype repair at the Skokie, Il. plant., Worked as an engineering lab tech programming EPROMs and ROM for early electronic control units writing code onto paper tape, used sniffers on networks, Made engineering changes to prototype circuit boards, Worked on repair of mainframe water cooled computers with scopes, meters, and all kinds of magic tools and test equipment, learned personal computers and telecommunications networks, specialized in bus sized high speed laser printers (3800) and 3745 telecommunications boxes, learned how write mainframe code, learned how to write PC code, can fix computers in my sleep. Have a bunch of WORKING self repaired reel to reel tape decks and radios in my garage collection. Fix my own cars. Maintain my own home.

I'm a no code tech.

It doesn't mean I'm a button pusher. Don't treat us like dirt.

Steve
N2UBP

-- > When I took my test in 1957, the FCC guy testing , told me the most
> difficult test was the amateur advanced.
>
> Back then You both sent and received Morse, and a solid one minute out of
> three was the passing mark. The test itself consisted of drawing
schematics,
> supplying missing components to a schematic, etc. Unlike today's NO CODE,
No
> ELECTRONICS exams.
>

1896. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 23:08:42 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40217B7A.1C0595A5@uci.edu>
Source record: 100569

Cecil Moore wrote:
> This keeps happening over and over. Can you at least answer the following
> questions? In what direction is current at 170 degrees flowing relative
> to the source (assumed to be at zero degrees)? In what direction is current
> at 10 degrees flowing with respect to the source.

At what instant in time, and, relative to what??!! They're really
stupid questions, Cecil.

73, Jim AC6XG

1897. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 23:10:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dbu220hbp6hhqllrt7du913872sgi6oap7@4ax.com>
Source record: 100668

On Wed, 04 Feb 2004 22:18:41 GMT, "Peter O. Brackett"
<no_such_address@ix.netcom.com> wrote:
>Long live Fortran...

Peter,

You are simply being provincial.

"Fortran" indeed as if that were the mantle of authority to vindicate bad design. And then to string out all the flavors which, by the way, invalidates the caprice that Fortran is the end-all be-all. I cut my teeth on Fortran IV and have progressed through more than a dozen languages and their dialects. BFD!

Whining over "where's the C math libraries?" when Fortran implementations offer no better insurance is a tedious argument. Your hick elitism smacks of the plowboy showing off his new oxfords to the fellows in boots.

73's
Richard Clark, KB7QHC

1898. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 23:21:28 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <m34qu6l9c7.fsf@qmc.ph.msstate.edu>
Source record: 100570

>I disagree.... where are the equivalent high quality field proven
>mathematical
>subroutine libraries?

Sorry, but IMSL, LAPACK, BLAS, ... (to name a few) all are equally well usable from Fortran, C, or C++. A given vendor usually writes these underlying bits by hand from assembler anyway to get maximum performance. It then makes no difference what language you use at the high level. Maybe 20 years ago Fortran compilers in general produced faster code than C compilers, but not today.

Speaking as a computational physicist who programs many large-scale numerical simulations, I usually use C. C is often much better from a data manipulation standpoint. Try implementing a doubly-linked list in Fortran. Yes, such things can be useful in numerical algorithms.

I'm glad there's a readable version of NEC in C available now, this will make interfacing it with a gui much easier. NEC for typical amateur antennas runs so fast on todays processors, the important thing is easily visualizing the input and output.

I'm curious what free Fortran 90/95 compiler you refer to? "evaluation versions" that expire after xx days don't count :)

Torsten
N4OGW

1899. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 23:28:41 UTC
From: Lloyd Mitchell <lloydm75@hotmail.com>
Message-ID: <8lfUb.7707$qK3.2410@bignews3.bellsouth.net>
Source record: 100571

I highly recommend the 5/8 or 1/4 wave on the "L" bracket either on the front hood or on the rear lift gate area. the 1/4 wave will be perfect for that area. I also can highly recommend the Maxrad or the standard Motorola 1/4 wave antenna as an alternative to Larsen. dont discount them for price until you check with a commercial shop first, you might be surprized at the cost and the durability difference.

Mitch KD4HTW

1900. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-04 23:51:37 UTC
From: Stinger <contact@newsserveronly.com>
Message-ID: <fvfUb.2499$8a5.1856@bignews1.bellsouth.net>
Source record: 100572
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Roger Gt" <not@here.net> wrote in message
news:Gy0Ub.21390$AL2.12790@newssvr25.news.prodigy.com...
<SNIP> >
> What's a Limbaugh?
> --

Two oxycontins with a dry martini chaser?

See -- Even we conservatives have a sense of humor about our own.

-- Stinger

1901. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 00:06:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402189e6$1_8@corp.newsgroups.com>
Source record: 100573

Jim Kelley wrote:
> Cecil Moore wrote:
>>This keeps happening over and over. Can you at least answer the following
>>questions? In what direction is current at 170 degrees flowing relative
>>to the source (assumed to be at zero degrees)? In what direction is current
>>at 10 degrees flowing with respect to the source.
>
> At what instant in time, and, relative to what??!! They're really
> stupid questions, Cecil.

Relative to a snapshot of the source at zero degrees, of course. And they
are really important questions for comprehending what's happening in reality.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1902. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 00:14:48 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <bvrv7n$t96$1@news1.kornet.net>
Source record: 100574
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Stinger" <contact@newsserveronly.com> wrote in message
news:fvfUb.2499$8a5.1856@bignews1.bellsouth.net...
>
> "Roger Gt" <not@here.net> wrote in message
> news:Gy0Ub.21390$AL2.12790@newssvr25.news.prodigy.com...
> <SNIP> >
> > What's a Limbaugh?
> > --
>
> Two oxycontins with a dry martini chaser?
>
> See -- Even we conservatives have a sense of humor about our own.
>

ROTFLMAO!!!

Thank you for the good morning wake-up laugh.. :)

1903. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 00:23:33 UTC
From: Roger Gt <not@here.net>
Message-ID: <92gUb.20263$uB1.13556@newssvr27.news.prodigy.com>
Source record: 100575
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

"Stinger" wrote in message
> "Roger Gt" wrote in message

> <SNIP> >
> > What's a Limbaugh?
> > --
> Two oxycontins with a dry martini chaser?
> See -- Even we conservatives have a sense of
humor about our own.
> -- Stinger

A good one!

X-No-Archive: yes

1904. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 00:30:56 UTC
From: "Eric K. Weber" <eric-nospam@webermusic.com>
Message-ID: <bvs2s0$1jv$1@xuxa.iecc.com>
Source record: 100576
Cross-posted to: rec.audio.tech,rec.radio.amateur.antenna,rec.radio.broadcasting

Greetings:

Radio Shack's antennas were manufactured by Winegard.....

see :
http://www.winegard.com/offair/prostar1000vhffmyagi.htm#6000

Is this what you had in mind?

Rgds:
Eric

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:bvofak$c74$1@xuxa.iecc.com...
> Hi. Does Radioshack still manufacture Part No. 150-1639 or 15-1639, which
> is an FM turnstile antenna? Looks unlikely to me.
>
> http://support.radioshack.com/support_video/15785.htm
>
>
> [Crossposted, but all replies/followups will go to alt.radio.broadcasting]
>
>
>
>

1905. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 00:33:22 UTC
From: ultanir_99@yahoo.com
Message-ID: <c403e21f.0402041633.6846c3f8@posting.google.com>
Source record: 100577
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I am trying to build rf transmitter and receiver that could transfer information (doors open closed, light on, etc, etc) from my car in the parking lot to my office desk. The distance is about 100m. I would like to have the receiver to be very small-key chain size. Therefore I thought high frequency might result in a smaller antenna. Most probably bandwidth will be very small (I do not need high speed data transfer). I am not sure about the polarization issue. About the power, that depends on the design, most probably. I am planning to use the IC from; http://www.maxim-ic.com/Wireless.cfm

Is it possible to do this kind of a device that small?

Adam

" Stephen Cowell" <scowell@sbcglobal.net> wrote in message news:<NXXTb.780$4k3.466@newssvr23.news.prodigy.com>...
> "erdem" <ultanir_99@yahoo.com> wrote in message
> news:c403e21f.0402030550.f92ac8d@posting.google.com...
> > Actually I am not trying to design antennas (>500Mhz to 1Ghz- I guess
> > this gives you information about what sort they are), I am trying to
> > buy them on a pcb or small chips that could be mounted on a PCB.
>
> Your wavelength of interest is 3cm at a minimum...
> you're trying to put them into a box smaller than
> that.
>
> How much gain should this antenna have? How
> broad-banded does it have to be? How much
> power does it have to handle? What kind of
> polarization do I want? These are basic
> questions you should answer.
> __
> Steve
> KI5YG/EA
> .

1906. Model SA-2 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 00:45:56 UTC
From: Winston <win@here.com>
Message-ID: <q543205tggemarn197djufilg8bjm2h34f@4ax.com>
Source record: 100578

Found these Model SA-2 things in my antenna parts box. Can anyone tell me what they are. They look like antenna loading coils. They are about 8 inches long in about 1 inch PVC. States Spi-Ro Manufatuuring on them. Surely I can use them for something.

Win W0LZ

1907. Re: TVI on Sat TV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 01:19:24 UTC
From: "Gary \"Joe\" Mayfield" <gary_mayfield@spamfree.hotmail.com>
Message-ID: <10236j0nhh3a363@corp.supernews.com>
Source record: 100579

Odds are good, that it is plain old front end overload on the TV.

It is hard to do tactfully, but you may also want to explain the satellite box is an FCC part 15 device.

http://www.fcc.gov/oet/info/rules/

http://www.arrl.org/tis/info/part15.html

There should be a label on the device that says "This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

Good Luck! and 73,
Joe

"Dennis Kaylor" <k4oxg@tampabay.rr.com> wrote in message news:%WXTb.18987$fH2.15407@twister.tampabay.rr.com...
> hey guys
> while working on 6 meters tonight i got a knock on my door and the guy
> said i was getting into his Satellite TV his TV is on channel 4 and his
> Dish was Professionally installed so could someone let me know what i
> can do to stop this?
> i am unfamilar with sat TV and dont know how to cure this issue
> so any info would be a big help
> thanks
>

1908. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 01:55:57 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <NohUb.995$b13.39@newssvr23.news.prodigy.com>
Source record: 100580
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"erdem" <ultanir_99@yahoo.com> wrote in message
news:c403e21f.0402041633.6846c3f8@posting.google.com...
> I am trying to build rf transmitter and receiver that could transfer
> information (doors open closed, light on, etc, etc) from my car in the
> parking lot to my office desk. The distance is about 100m. I would
> like to have the receiver to be very small-key chain size. Therefore I
> thought high frequency might result in a smaller antenna. Most
> probably bandwidth will be very small (I do not need high speed data
> transfer). I am not sure about the polarization issue. About the
> power, that depends on the design, most probably. I am planning to use
> the IC from; http://www.maxim-ic.com/Wireless.cfm
>
> Is it possible to do this kind of a device that small?

Easily... as long as all it has to do is receive. You
can pump out 20W of UHF RF from your car, you'll
hear it without any antenna at all inside, probably.
Your concerns are path loss (not that much through
the walls of the building) and receiver antenna
inefficiency (the greater of the two, since you put
a small size limit).

Perhaps you're talking about this chip:

http://www.maxim-ic.com/view_press_release.cfm/release_id/932

Pretty impressive, I must say... looks like fun.

Keeping this On Topic for r.r.a.a, I'd start with
a piece of wire 1/4 wave long, run around the
perimeter of your device, as an antenna.

--
Steve
KI5YG/EA
.

PS Make sure that you address any legal considerations
about one-way automatic transmissions.

1909. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 02:14:22 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <2GhUb.10274$jH6.7563@newsread1.news.atl.earthlink.net>
Source record: 100581

Tom:

[snip]
> Peter... Uh, Peter? You're free to do all the coding yourself if you'd
> like to. Converting NEC to Fortran 90/95 would be a good project
> for you in your retirement.
> 73,
> Tom Donaly, KA6RUH
[snip]

Heh, heh... fool! Taken in by computer scientists are you.

Well, NEC to Fortran 90... Man I've already done it!

And...

It didn't take me several months of coding to end up with a new code with
many
as yet unfound bugs!

--
Peter K1PO
Indialantic By-the-Sea, FL

1910. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 02:43:00 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <U4iUb.174967$Rc4.1323132@attbi_s54>
Source record: 100582

O.K. I have downloaded the file
Since the dipole is resonant the current magnitudes
on either side of the center must be symetrical.
If you had a half wave length of wire between the end half waves you would
have a half wave ofcurrent with a negative phase which reflects a phase
change at half wave intervals. every thing so far appears O.K.
Now you aparently changed the wire length so that half is represented by an
inductance and the remaining portion
stays in linear form to where a phase change occurs again.
Now the problem part. In another drawing reflecting a vertical the insertion
of an inductance was inserted
suddenly created an immmediate phase change even tho its wire make up only
consisted of something less than a half wave length on a predetermined basis
that any inductance initiates a phase change at both the beginning and the
end which I read as false.The phase change is predicated in a way by the
wire length that was crunched up to form an inductance.but without
capacitive coupling of any sort which is impossible.
When looking at Moxons book he shows two dipoles in linear form with a
parallel circuit at the center which can
represent a loop of a half wave dimension. He also shows the cureent flow in
the system from the left to the right
until it intersects the parallel loop circuit where it receives current that
is flowing counter clockwise within the loop.
At the end of the loop the current changes to one that symetry demands i.e
current is zero following a sinosoidal shape such that it reaches zero
current at the end as symetry requires for a resonant array...
Fron Moxons drawing the loop is simulating a mechanical pump operated by the
direction of current flow at any particular time where the input and output
current are one and the same value so that symetry required for resonance is
obtained.
Now when I come to your drawing of a vertical I become confused because the
top end is clearly zero current flow
which presumably is a requirement for resonance
but the inductance suddenly becomes dimension less
even tho it must have dimensions to reflect phase change
thus the current flow assigned to your vertical is clearly flawed.
Now Cecil I am not skilled in the art of antennas or modeling as you are but
I probably reflect the thinking
of the average ham. Thus I would not treat it personaly
if you viewed my reasoning as one that reflects a novice.
So why not correct the above reasoning in order given
so that the average novice can advance in the art
because of an enlightning rebuttal..
If we are beyond education such that we cannot be helped without duplication

of your own experiences then so be it and we must agree to disagree.
As I said earlier nothing personal but I would like the benefit of your
enlitenment so I can rebuild on a firmer foundation.
Regards
Art
.

oore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4021706b$1_8@corp.newsgroups.com...
> Art Unwin KB9MZ wrote:
> > Seems like the model is lacking in all the details
> > and frankly I feel I am looking at an intentianal sham for some reason
>
> Sorry you feel that way, Art. That is the output graphic from EZNEC.
>
> > For instance you do not show coupling to ground which is why I am
suspicious
> > since resonance is unavoidably affected by nearby objects as well as
ground
>
> If there's something wrong, blame EZNEC. I am just reporting what
> EZNEC sez.
>
> > You also have not specified a frequency of use ...
>
> Of course I have, Art, it's in the .ez file. Since antennas are scalable,
> the frequency is irrelevant to the diagram. Please download the .ez file.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1911. Re: Are we a Democracy, or a Republic ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 02:58:56 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <ee137ed4.0402041858.3ccecaf6@posting.google.com>
Source record: 100583
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.shortwave

STINGER,

"Two oxycontins with a dry martini chaser ?"

Followed by a Good Cigar :o)

Oops... I sorry after 2OCs + DMC - It's All Good Baby !

DRUGS: The Hi-Life and Good Bye to Life !

jftfoi ~ RHF
.
.
= = = "Stinger" <contact@newsserveronly.com>
= = = wrote in message news:<fvfUb.2499$8a5.1856@bignews1.bellsouth.net>...
> "Roger Gt" <not@here.net> wrote in message
> news:Gy0Ub.21390$AL2.12790@newssvr25.news.prodigy.com...
> <SNIP> >
> > What's a Limbaugh?
> > --
>
> Two oxycontins with a dry martini chaser?
>
> See -- Even we conservatives have a sense of humor about our own.
>
> -- Stinger
>
.

1912. element-2-boom insulator mount

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 03:34:47 UTC
From: Hulen Smith <clay1952@cmaaccess.com>
Message-ID: <4024718f$0$32594$2c56edd9@news.cablerocket.com>
Source record: 100496

Does anyone know where I can find element (1/4-3/8") to boom (1-1 1/4")
mounts, insulated ?

Email directly if so inclined: clayntexas@cmaaccess.com

Thanks for any info
Clay

1913. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 03:36:27 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvsdnp$26tv$1@news3.infoave.net>
Source record: 100584
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

There you go, waving a 2 inch swantz around the big boys and crying
because we are not impressed.

Never said you were dirt, I did say your getting a free ride as the result
of those unable to compete, whining long and hard.

"Steve Stone" <spfleck@zzcitlinkzz.net> wrote in message
news:FXeUb.14160$3h6.12836@news02.roc.ny...
>
> When I took my no code tech license in 1993 I didn't have to do what you
did
> in 1957.
>
> But I did spend years in college attaining a degree in Electronic
Technology
> , learned all about tubes and electron theory, electronics related math,
> drew schematics, learned about solid state and early digital IC's, op
amps,
> did work study doing bench work at a BSR factory, learned how to repair
> motracs and radar units in a professors garage shop (he was a ham and the
> local service guy for the radios the cops used). Moved into the working
> world in the late 70's , Trained on teletype repair at the Skokie, Il.
> plant., Worked as an engineering lab tech programming EPROMs and ROM for
> early electronic control units writing code onto paper tape, used sniffers
> on networks, Made engineering changes to prototype circuit boards, Worked
on
> I'm a no code tech.

MORE YA DA Da Da Snipped...
>
> It doesn't mean I'm a button pusher. Don't treat us like dirt.
>
> Steve
> N2UBP
>
>
>
> -- > When I took my test in 1957, the FCC guy testing , told me the most
> > difficult test was the amateur advanced.
> >
> > Back then You both sent and received Morse, and a solid one minute out
of
> > three was the passing mark. The test itself consisted of drawing
> schematics,

> > supplying missing components to a schematic, etc. Unlike today's NO
CODE,
> No
> > ELECTRONICS exams.
> >
>
>

1914. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 03:37:46 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvsdq7$26un$1@news3.infoave.net>
Source record: 100585

had a girl friend like that once...

" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:PT8Ub.174501$5V2.875722@attbi_s53...
> Sorry about that, missed the period before co
>
> http://web.ukonline.co.uk/g3ldo
>
> Art

1915. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 04:00:50 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <SdjUb.1026$qJ4.978@newssvr23.news.prodigy.com>
Source record: 100586

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:zf6dneV1B7fz_LzdRVn-vw@comcast.com...

...

> 275 feet of garden variety RG8Foam would have a loss of about 1.5 db at 10
> MHz. LMR400 about 1db. Do NOT use RG213.

What's wrong with RG213?

--
Steve
KI5YG
.

1916. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 04:08:20 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <9qf320ppnb7l4u10pfceunvtisop9in7le@4ax.com>
Source record: 100587

On Wed, 4 Feb 2004 15:01:21 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
wrote:

>Peter O. Brackett wrote:
>
>>
>> From Fortran to C, what a waste of coding time... and how many errors
>> were introduced in the translation? Heh, heh. :-)
>And how many were fixed? From what he says about his
>test results, very, very few errors were introduced.
>>
>> Many would feel... What a crime?
>Many more might feel "What crime?".
>>
>> What's wrong with perfectly good Fortran?
>Same thing that's wrong with a perfectly good boil on your ass. 8-)
>>
>> BTW... there's nothing wrong with "GOTO"s that aren't readily fixed with
>> simple matching "COMEFROM" statements!
>
>Try Cobol. The 'ALTER' statement was a computed come-from!
>Fortran programmers can only dream of the job security that
>flowed from that.

I give you (from ancient memory)...

```
NAME1 NOP NAME2
OI X'FF', NAME1 + 2
/* MORE CODE */
NAME2 EQU *
```

What's it do?

The math libraries in C are at least as good as those in Fortran and
the control and data structures actually exist.

Does DOD still require everything to be written in Ada?

Is NASTRAN still around or is there now a flight-rated C compiler.

Ever write any validated software? Now there's some fun.

Russ

>>
>> Rest in Peace E. Djkystra!
>>

>A good Fortran programmer can write Fortran in any language. ;-)
>What Neoklis has done seems to avoid that pitfall. If he has made
>all that NEC2 spaghetti more comprehensible to mere mortals then
>he's done us all a really big favour.
>
>vy 73
>
>Andy, M1EBV

1917. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 04:28:45 UTC
From: richardharrison@webtv.net
Message-ID: <26999-4021C67D-54@storefull-3252.bay.webtv.net>
Source record: 100588

Mark Keith wrote:
"----so far I don`t recollect anyone actually measuring a real world coil, and finding max current at the top of the coil."

It could be done but it isn`t the ordinary function of loading coils to work with low current in and high current out.

One could reason that 1/4-wave back from the open-circuit end of an antenna element a low-impedance high-current point is created. Since the function of a loading coil is usually to supply the missing part of a 1/4-wave in a shortened element, one would expect to find the high-current terminal of the coil facing the transmitter and the low current end of the coil facing the open-circuit end of the element.

Best regards, Richard Harrison, KB5WZI

1918. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 04:45:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4021cb41$1_7@corp.newsgroups.com>
Source record: 100589

Art Unwin KB9MZ wrote:
> Now when I come to your drawing of a vertical I become confused because the
> top end is clearly zero current flow
> which presumably is a requirement for resonance
> but the inductance suddenly becomes dimension less ...

The coil in sqcoil.gif has dimensions, Art, but the drawing is in two dimensions, x & z. The y dimension exists normal to the plane of the drawing. The coil is a square coil in three dimensions. It is 2 feet wide in the x dimension and 2 feet wide in the y dimension. The coils are 0.5 feet apart.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1919. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 04:59:45 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4021ce8f_7@corp.newsgroups.com>
Source record: 100590

Richard Harrison wrote:
> One could reason that 1/4-wave back from the open-circuit end of an
> antenna element a low-impedance high-current point is created. Since the
> function of a loading coil is usually to supply the missing part of a
> 1/4-wave in a shortened element, one would expect to find the
> high-current terminal of the coil facing the transmitter and the low
> current end of the coil facing the open-circuit end of the element.

I've posted the 'sqcoil.ez' file to my web site that shows low current into the bottom of the coil and high current out of the top of the coil. The radiation pattern shows why that configuration is unpopular - mostly a cloud warmer with a take-off-angle of 48 degrees at 14.7 MHz.

However, when 'sqcoil.ez' is run at 29.4 MHz, it turns into a phased array with close to 180 degrees of phase-reversal in the coil and an omni-directional gain of 3+ dBi at a take-off-angle of 12 degrees.
--
73, Cecil http://www.qsl.net/w5dxp/sqcoil.ez

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1920. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 05:18:04 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <gmkUb.95017$U%5.482107@attbi_s03>
Source record: 100591

Thanks for the reply Cecil
It is obvious to me that you are refering to a drawing or GIF as you call it
that I cannot retrieve to review thus I cannot continue this discussion as
it would resemble a chess game where I could not see opposing positions to
ascertain whether a rook was allowed to move as a pawn to thwart any moves I
made.
I like that analogy Cecil but it does resemble a discussion
that cannot progress with clarity or resolve. We are all playing on our home
fields where each is not sure how a touchdown was scored, if it was scored
and in whose favor..
No wonder this thread has more trails than a fishbone
with each poster crunching different parts of the bone
on the assumption that all are chewing on the same part.
Presumably my posting is now so unclear that it will fit neatly into and
conform to the overall thread.
Cecil we have severe weather here that it requires a real snow job from me
to emerge back into this particular thread !!!!!
Regards
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4021cb41$1_7@corp.newsgroups.com...
> Art Unwin KB9MZ wrote:
> > Now when I come to your drawing of a vertical I become confused because
the
> > top end is clearly zero current flow
> > which presumably is a requirement for resonance
> > but the inductance suddenly becomes dimension less ...
>
> The coil in sqcoil.gif has dimensions, Art, but the drawing is in two
> dimensions, x & z. The y dimension exists normal to the plane of the
> drawing. The coil is a square coil in three dimensions. It is 2 feet
> wide in the x dimension and 2 feet wide in the y dimension. The coils
> are 0.5 feet apart.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1921. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 05:33:37 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvskjg$29t4$1@news3.infoave.net>
Source record: 100592

It has a lot of loss when you use 275 feet of it. with a 10;1 SWR you will lose...(see prior posts)

" Stephen Cowell" <scowell@sbcglobal.net> wrote in message news:SdjUb.1026$qJ4.978@newssvr23.news.prodigy.com...
>
> "Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> news:zf6dneV1B7fz_LzdRVn-vw@comcast.com...
>
> ...
>
> > 275 feet of garden variety RG8Foam would have a loss of about 1.5 db at 10
> > MHz. LMR400 about 1db. Do NOT use RG213.
>
> What's wrong with RG213?
> __
> Steve
> KI5YG
> .
>
>

1922. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 05:38:17 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvsks7$29vj$1@news3.infoave.net>
Source record: 100593

Probably, they are still using 386 hardware. a while back NASA was looking
for nos stock to replace components in their 386 computers.

Look for an announcement in the next couple of years about a man rated 486
computer.

"Russ" <carlzomer@hotmail.com> wrote in message
news:9qf320ppnb7l4u10pfceunvtisop9in7le@4ax.com...
> On Wed, 4 Feb 2004 15:01:21 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
>
> Is NASTRAN still around or is there now a flight-rated C compiler.
>
> Ever write any validated software? Now there's some fun.
>
> Russ
>
> >>
> >> Rest in Peace E. Djkystra!
> >>
> >A good Fortran programmer can write Fortran in any language. ;-)
> >What Neoklis has done seems to avoid that pitfall. If he has made
> >all that NEC2 spaghetti more comprehensible to mere mortals then
> >he's done us all a really big favour.
> >
> >vy 73
> >
> >Andy, M1EBV
>

1923. Re: Washing Dishes

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 05:43:50 UTC
From: Book <book16@optusnet.com.au>
Message-ID: <4021d816$0$28871$afc38c87@news.optusnet.com.au>
Source record: 100594

I'd considered that, but since the surface was white to begin with, I'd guessed the designers had considered it to be an insignificant issue. The LNB is going to be cooled to maintain a stable temperature, but maybe I need to pull out the spray gun.

--
Book

9A4DE wrote:

>>My question is, would polishing the surface (after a good clean) with
>>ordinarily car polish be likely to cause any problems. I'd rather not
>>have to re-spray the thing.
>>
>
> Dont do this! 3m polished dish + solar heat = melted feed. Paint it with
> matte gray paint and even then be careful and dont point it in the sun.
>
> GL de 9A4DE
>
>
>>Thanks,
>>--
>>Book
>
>
>

1924. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 05:43:57 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvsl6r$2a20$1@news3.infoave.net>
Source record: 100595

square coils will not work, the current goes so fast, it can't turn the
corners and it all shoots out the end.

This causes the current at the top of the coil to be less than that at the
bottom.

All clearly covered in the Kraus Cliff Notes.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4021cb41$1_7@corp.newsgroups.com...
> Art Unwin KB9MZ wrote:
> > Now when I come to your drawing of a vertical I become confused because
the
> > top end is clearly zero current flow
> > which presumably is a requirement for resonance
> > but the inductance suddenly becomes dimension less ...
>
> The coil in sqcoil.gif has dimensions, Art, but the drawing is in two
> dimensions, x & z. The y dimension exists normal to the plane of the
> drawing. The coil is a square coil in three dimensions. It is 2 feet
> wide in the x dimension and 2 feet wide in the y dimension. The coils
> are 0.5 feet apart.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1925. Re: Adding a 2:1 balun to a multi-band dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 06:22:44 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4021e201$1_6@corp.newsgroups.com>
Source record: 100596

Larry Gauthier (K8UT) wrote:
> Is a 2:1 balun the solution, and which balun method?

A 2:1 balun on a single toroid is hard to come by.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1926. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 06:31:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4021e416_6@corp.newsgroups.com>
Source record: 100597

W4JLE wrote:
> square coils will not work, the current goes so fast, it can't turn the
> corners and it all shoots out the end.

:-) That's why I have developed an octal coil. I'll post the results this
weekend. The coil is 4.5 turns, 12 inches in diameter, and 22 inches long.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1927. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 06:59:24 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <ldq320l16mgbaotiso3a0t975u1q3dbjkk@4ax.com>
Source record: 100598

On Wed, 4 Feb 2004 22:37:46 -0500, "W4JLE" <w4jle(remove to
reply)@pbtcomm.net> wrote:

|had a girl friend like that once...

You too??

|
|" Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
|news:PT8Ub.174501$5V2.875722@attbi_s53...
|> Sorry about that, missed the period before co
|>
|> http://web.ukonline.co.uk/g3ldo
|>
|> Art
|

1928. Re: RG-133 coax

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 07:11:58 UTC
From: Crazy George <mNunsOch@atStglPobAal.nMet>
Message-ID: <4021ee22_2@news1.prserv.net>
Source record: 100599
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

For the first time in a long time, I didn't bring my coax catalog with me in the field. What are the salient characteristics of 133?

Crazy George

"R. Soetedjo" <robi@u.washington.edu> wrote in message news:Pine.A41.4.58.0402031509140.213054@mead12.u.washington.edu...
> I'm looking for some RG-133 coax for building antenna phasing network?
> Please email me if you have some.
>
> tnx
> rob

1929. Re: RG-133 coax

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 08:04:14 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvstdr$2coo$1@news3.infoave.net>
Source record: 100600
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

95 Ohm coax

"Crazy George" <mNunsOch@atStglPobAal.nMet> wrote in message
news:4021ee22_2@news1.prserv.net...
> For the first time in a long time, I didn't bring my coax catalog with me
in
> the field. What are the salient characteristics of 133?
>
> Crazy George
>
>
> "R. Soetedjo" <robi@u.washington.edu> wrote in message
> news:Pine.A41.4.58.0402031509140.213054@mead12.u.washington.edu...
> > I'm looking for some RG-133 coax for building antenna phasing network?
> > Please email me if you have some.
> >
> > tnx
> > rob
>
>

1930. Re: Washing Dishes

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 08:36:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1tv320hgdlv60ev7ml6nro2iijlqqbp3d2@4ax.com>
Source record: 100601

On Thu, 05 Feb 2004 05:43:50 +0000, Book <book16@optusnet.com.au>
wrote:

>I'd considered that, but since the surface was white to begin with, I'd
>guessed the designers had considered it to be an insignificant issue.
>The LNB is going to be cooled to maintain a stable temperature, but
>maybe I need to pull out the spray gun.
>

Fellows,

Almost everything is white (brightly reflective) to InfraRed.

73's
Richard Clark, KB7QHC

1931. TV antenna question , newbie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 11:11:00 UTC
From: cme <cme100@hotmail.com>
Message-ID: <402224ff$1_7@reader1.fl.hostopia.com>
Source record: 100602

looking for a good UHF or antenna to add to existing vhf/uhf antenna. Can anyone suggest overall unit and a good antenna amp and splitter.

Presently get all vhf stations minus 2 out of Buffalo snowed to death, hard to pull and all uhf stations minus 57 out of toronto snowed. situated in Niagara falls, Canada. So I'm looking of pulling a cleaner channel 2 and 57.

I want to add another tv , so I was thinking of installing a power amp and splitter.
I have about 70 feet of coax to present tv.

Did some reading and whats on the market as far as power booster splitters is confusing. Dont wnat to spend the buck to find that it hasnt helped.

I'm situated from a power corridor ,high voltage transmission towers, but they dont seem to effect signals from what I can see.

Can anyone tell me what the best gear to buy for the best bang for your buck????

1932. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 11:58:52 UTC
From: mlori@ieee.org
Message-ID: <ddff27eb.0402050358.179eb2e4@posting.google.com>
Source record: 100603

5b4az@qsl.net (Neoklis) wrote in message
news:<e637e579.0402032133.7a2b9c08@posting.google.com>...
> Robert Spooner <rls19@psu.edu> wrote in message
news:<bvooch$18vo$1@f04n12.cac.psu.edu>...
> >
> > I looked at the URL, and you've done a lot of work to update the code.
> > That is commendable, and you deserve thanks from the amateur community.
> > You certainly have my thanks. I'm curious to know how much regression
> > testing you've done.
> >
> Hi Bob,
>
> Thanks for the nice words. I tested the translation as much as I could
> by comparing my version of program flow with the original source. It was
> possible this way to spot a lot of bugs, most of them related to
> "off-by-one" errors since fortran uses indices from 1 - n while C from
> 0 - (n-1). Also untangling GOTO's required a lot of changes mainly in
> "spaghetti" sections and these were also prone to errors.
>
> Eventually I debugged the code as far as was possible by constructing
> input files that would hopefully put NEC2 through all possible paths
> (there are about 1275 if conditionals and about 450 do/while loops!)
> and comparing the output with the original fortran code. I then tried
> a large number of input files found on the internet and compared outputs.
> I had very good agreement in all my tests but I am sure that some
> combination in an input file will trigger off hidden bugs.
>
> 73's "Nick" 5B4AZ

Hi Nick,
you have made most of the work made by a New Zeland company that is
selling Supernec.
For all using Matlab, as me, your work is very interesting since doing
some work it is possible to use the highly optimized Matlab routines
to make the hard matrix work of the program. Furthermore, it is also
possible to use the visualization capabilities of the same program to
see the results (or the inputs).
Matlab code can be compiled with other C or even Fortran codes.

Thanks then!

1933. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 14:57:23 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40210351_3@newsfeed.slurp.net>
Source record: 100604
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Adam, before you get all wound up over building a system from scratch, why not consult some security and alarm companies, and see what they have available...?

- KI6PR

"erdem" wrote
> I am trying to build rf transmitter and receiver that could transfer
> information (doors open closed, light on, etc, etc) from my car in the
> parking lot to my office desk. The distance is about 100m. I would
> like to have the receiver to be very small-key chain size. Therefore I
> thought high frequency might result in a smaller antenna. Most
> probably bandwidth will be very small (I do not need high speed data
> transfer). I am not sure about the polarization issue. About the
> power, that depends on the design, most probably. I am planning to use
> the IC from; http://www.maxim-ic.com/Wireless.cfm
>
> Is it possible to do this kind of a device that small?
>
> Adam
>
>
>
> " Stephen Cowell" <scowell@sbcglobal.net> wrote in message
news:<NXXTb.780$4k3.466@newssvr23.news.prodigy.com>...
> > "erdem" <ultanir_99@yahoo.com> wrote in message
> > news:c403e21f.0402030550.f92ac8d@posting.google.com...
> > > Actually I am not trying to design antennas (>500Mhz to 1Ghz- I guess
> > > this gives you information about what sort they are), I am trying to
> > > buy them on a pcb or small chips that could be mounted on a PCB.
> >
> > Your wavelength of interest is 3cm at a minimum...
> > you're trying to put them into a box smaller than
> > that.
> >
> > How much gain should this antenna have? How
> > broad-banded does it have to be? How much
> > power does it have to handle? What kind of
> > polarization do I want? These are basic
> > questions you should answer.
> > __
> > Steve
> > KI5YG/EA
> > .

1934. Re: TV antenna question , newbie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 16:03:35 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <xJCdnaYpkY_B9L_d4p2dnA@comcast.com>
Source record: 100605

Took a look at a map, and it seems that Toronto is North of you, and Buffalo is South. So, the first thing you need is an antenna rotator. As far as amplifiers go, make sure you get a low noise unit that is meant to be used with an antenna, NOT a CATV amp. Also, check out some antenna manufacturer's web sites.

Tam/WB2TT
"cme" <cme100@hotmail.com> wrote in message
news:402224ff$1_7@reader1.fl.hostopia.com...
> looking for a good UHF or antenna to add to existing vhf/uhf antenna. Can
> anyone suggest overall unit and a good antenna amp and splitter.
>
> Presently get all vhf stations minus 2 out of Buffalo snowed to death,
hard
> to pull and all uhf stations minus 57 out of toronto snowed. situated in
> Niagara falls, Canada. So I'm looking of pulling a cleaner channel 2 and
57.
>
> I want to add another tv , so I was thinking of installing a power amp and
> splitter.
> I have about 70 feet of coax to present tv.
>
> Did some reading and whats on the market as far as power booster splitters
> is confusing. Dont wnat to spend the buck to find that it hasnt helped.
>
> I'm situated from a power corridor ,high voltage transmission towers, but
> they dont seem to effect signals from what I can see.
>
> Can anyone tell me what the best gear to buy for the best bang for your
> buck????
>
>
>

1935. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 16:04:51 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <2vOdnc0b-4U69L_dRVn-hQ@comcast.com>
Source record: 100606

```
" Stephen Cowell" <scowell@sbcglobal.net> wrote in message
news:SdjUb.1026$qJ4.978@newssvr23.news.prodigy.com...
>
> "Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> news:zf6dneV1B7fz_LzdRVn-vw@comcast.com...
>
> ...
>
> > 275 feet of garden variety RG8Foam would have a loss of about 1.5 db at
10
> > MHz. LMR400 about 1db. Do NOT use RG213.
>
> What's wrong with RG213?

It has twice the loss.

Tam/WB2TT
```

1936. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 16:28:10 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <bvtquq$356$1@xuxa.iecc.com>
Source record: 100607
Cross-posted to: rec.audio.tech,rec.radio.amateur.antenna,rec.radio.broadcasting

Eric K. Weber wrote:
> Greetings:
>
> Radio Shack's antennas were manufactured by Winegard.....
>
> see :
> http://www.winegard.com/offair/prostar1000vhffmyagi.htm#6000
>
> Is this what you had in mind?
>
> Rgds:
> Eric

Was Radioshacks offering a folded dipole arrangement?

1937. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 17:38:34 UTC
From: 5b4az@qsl.net
Message-ID: <e637e579.0402050938.2f28f10@posting.google.com>
Source record: 100608

mlori@ieee.org (Maurizio) wrote in message
news:<ddff27eb.0402050358.179eb2e4@posting.google.com>...

> Hi Nick,
> you have made most of the work made by a New Zeland company that is
> selling Supernec.

Selling! Sounds nice ;-)

> For all using Matlab, as me, your work is very interesting since doing
> some work it is possible to use the highly optimized Matlab routines
> to make the hard matrix work of the program. Furthermore, it is also
> possible to use the visualization capabilities of the same program to
> see the results (or the inputs).

Must confess my math/science is old and rusty - I am 55 years old and
retired early, did some fortran & algol programming around 1970 when I
was a student and taught myself Linux/C later 90's while waiting for
retirement. I don't think I remember enough on matrix math and don't
know Matlab at all to do this myself. I hope my translation is clear
enough for others to contribute more advanced features!

Regards

"Nick" 5B4AZ

1938. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 17:54:46 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40228366.9840278D@uci.edu>
Source record: 100609

Cecil Moore wrote:
> I've posted the 'sqcoil.ez' file to my web site that shows low current into
> the bottom of the coil and high current out of the top of the coil.

So according to "convention", standing wave current flows away from the
source. Is that your claim?

73, Jim AC6XG

1939. Re: Model SA-2 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 19:00:04 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <10254lri46g4ceb@corp.supernews.com>
Source record: 100610

Dipole antenna traps?
hank wd5jfr
"Winston" <win@here.com> wrote in message
news:q543205tggemarn197djufilg8bjm2h34f@4ax.com...
> Found these Model SA-2 things in my antenna parts box. Can anyone
> tell me what they are. They look like antenna loading coils. They
> are about 8 inches long in about 1 inch PVC. States Spi-Ro
> Manufatuuring on them. Surely I can use them for something.
>
> Win W0LZ
>

1940. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 19:18:52 UTC
From: tdonaly@aol.com
Message-ID: <20040205141852.00995.00000298@mb-m10.aol.com>
Source record: 100611

Jim wrote,
>
>Cecil Moore wrote:
>> I've posted the 'sqcoil.ez' file to my web site that shows low current into
>> the bottom of the coil and high current out of the top of the coil.
>
>So according to "convention", standing wave current flows away from the
>source. Is that your claim?
>
>73, Jim AC6XG
>
>
>

If it "flows" anywhere it isn't a standing wave. If there were more of
something going out of the coil than going in, the coil would have to
be manufacturing that something. Cecil's ideas on waves are well
known and lead to some pretty unbelievable results.
73,
Tom Donaly, KA6RUH

1941. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 20:08:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022a308$1_2@127.0.0.1>
Source record: 100612

Jim Kelley wrote:
>
> Cecil Moore wrote:
>>I've posted the 'sqcoil.ez' file to my web site that shows low current into
>>the bottom of the coil and high current out of the top of the coil.
>
> So according to "convention", standing wave current flows away from the
> source. Is that your claim?

No, as explained on my web page. The convention is that forward
current flows away from the source and reflected current flows
toward the source. Since in the real world, forward current is
always greater than reflected current, there is always a net
current flow away from the source, by convention. EZNEC displays
net current.
--
73. Cecil, W5DXP

1942. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 20:22:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022a643$1_2@127.0.0.1>
Source record: 100614

Tdonaly wrote:
> If there were more of
> something going out of the coil than going in, the coil would have to
> be manufacturing that something. Cecil's ideas on waves are well
> known and lead to some pretty unbelievable results.

Tom, Shirley you understand that current can flow into something
for 1/2 cycle and flow out of that something during the next 1/2
cycle. That's what can happen with a phase-reversing coil. For
1/2 cycle, current is flowing into both ends of the coil at the
same time. For the other 1/2 cycle current is flowing out of both
ends of the coil at the same time. The coil stores energy for the
first 1/2 cycle and returns it during the next 1/2 cycle. I'm
working on some new EZNEC files. On one file, the current flowing
into the bottom of the coil, according to EZNEC, is 0.18 amp at
-54 degrees. The current flowing out the top of the coil is 0.2
amp at 126 degrees. Those two currents are flowing in exactly
opposite directions. How do you explain that?
--
73, Cecil, W5DXP

1943. randon wire newbie question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 20:23:25 UTC
From: lethal <sa.uk@spamtrapvirgin.net>
Message-ID: <1DxUb.48349$OA3.15172774@newsfep2-win.server.ntli.net>
Source record: 100613

Hi folks,

firstly, i think the Virgin newsgroup/email server is playing up because i've posted this several time to various NG's but none
have shown up. Humbliest appologies if this has show all those times , it's not me messing about -- if they did show, i missed
them and the replies. If not, i hope this one gets through as i could do with the help and advice.

i'm going to put up a random wire for general SWL . I have a kit w/ 25 mtrs of wire / balun / coax feed ready to hang and receive.
Problem is my garden dimensions.

it's 8 mtrs wide , 10 mtrs long and diagonally 12 mtrs across - more or less a square shape.

can anyone help with these suggestions on how to run the wire.

1) i've read you can't fold the wire back on itself. Could i come from one corner of my house , follow the diagonal 12 mtrs
across the garden , support the wire on a pole at the opposite corner , then go back towards the house along the 10 mtr distance ?
Does this constitute folding the wire back on itself ? The angle of the bend at the pole would be approx 45 deg. with the wire in
a V shape yet the wires would be an increasing distance apart up to the house. Would this be a problem ?

2) I can fit in an inverted L but this would only be 16 mtrs of wire not including coax feed. The coax feed would be coming out of
the loft and onto a bracket which would support the balun and straight onto the horizontal length. The vertical bit would then
drop down at the far end . Would this work as all the pics of inverted L's ive seen show the feed starting at the bottom of the
vertical first which then goes up to the horizontal and out

height isn't too much of a problem as i can get it over the guttering level. This is all for RX not TX

sorry if these are basic, basic questions. I 'll be experimenting later but for know, i just want to get it all up and running as
best as possible.

thanx again as usual,
Simon

--

****
****
i want to die peacefully in my sleep , same as my grandad - not like his passengers,all screaming and shouting
****
****

1944. 40 meter dipole or 88 feet doublet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 20:30:25 UTC
From: Dick <hoogerwaard@wanadoo.nl>
Message-ID: <4022a7d9$0$132$ee9da40f@news.wanadoo.nl>
Source record: 100615

Hello,

As my 40 m. rotable dipole (2* 7 m. = 42 feet with coals) was damaged by the storm I am thinking to make something different. The dipole height was at 40 feet.

I can increase the heigth with a pipe to 60 feet and make a 80m. dipole 2 * 20 m. (120 feet) Inv. V. (West/East) and a 40 meter dipole 2 * 10m (60 feet) or a doublet of 88 feet (South/North)? Both with ladder line.

I mainly work on 80/40 and 30 m. the other bands are nice to have.

The question is should I make the 40 m. dipole or the doublet or renew the old rotable dipole? Or any other suggestions..

73 pa3glf

1945. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 20:54:24 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4022AD80.E49188@uci.edu>
Source record: 100618

Cecil Moore wrote:

> The convention is that forward
> current flows away from the source and reflected current flows
> toward the source.

Exactly.

> Since in the real world, forward current is
> always greater than reflected current, there is always a net
> current flow away from the source, by convention.

The current plot for an antenna is a standing wave plot. The superposition of foward and reflected current is a standing wave. Your "net current" here is a standing wave. Convention dictates that current alternates in direction, and that standing waves don't. They stand.

There exists no "reality" in which more current "goes in" one end of a device than "comes out" the other.

73, Jim AC6XG

1946. Re: randon wire newbie question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 20:54:56 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4022ADA0.76C35788@cwis.net>
Source record: 100616

Simon,
The 'shape' of a general purpose SWL antenna that will
be used on a number of bands isn't all that critical. It
won't be particularly 'resonant' on any band and it's
directional properties will be random, rather than something
easily predictable and 'aimable'. In general (meaning that
there are always exceptions), the longer and higher you can
get it the better it will work.
The 'folding it back on it's self' that you talk about
refers to the angle between the 'folds'. The smaller that
angle, the less effective length there is, to a point, sort
of. At the extreme, wrapping the wire back around it's self
effectively cuts the wire off at that point, again, 'sort of'.
Given the amount of area you have to play with, you have
several choices as to 'shape' of the antenna. Rectangular,
triangular, and almost anything inbetween, not to mention
in the vertical direction. If it were me, I'd try for what
ever 'shape' that would result in the most length. Since there
isn't ''one'' perfect length and height for an SWL antenna, and
since it won't be optimum for all bands, give one a try. Later
try another 'shape'. Keep the one that works best for your
location and band(s) of interest.
'Doc

1947. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 20:57:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hpa5205ddplsev4mq8e69t8c4f2sokdvbv@4ax.com>
Source record: 100617

On Thu, 05 Feb 2004 14:08:30 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>forward current is always greater than reflected current,
> EZNEC displays net current.
On Thu, 05 Feb 2004 14:22:29 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>the current flowing into the bottom of the coil, according to EZNEC,
>is 0.18 amp at -54 degrees.
>The current flowing out the top of the coil is 0.2
>amp at 126 degrees. Those two currents are flowing in exactly
>opposite directions. How do you explain that?

Well with the wisdom accumulated thus far you don't know how to use
and or interpret EZNEC (fairly obvious). Let's look at the howlers:
>forward current is always greater than reflected current,
compared to:
>the current flowing into... 0.18 amp
>The current flowing out ... is 0.2 amp

OR
>the current flowing into... bottom of the coil
Forward compared to Reverse
>The current flowing out ... top of the coil
which describes the same direction: into bottom - out of top.

Such logical knots (nuts) are derived from the faulty application of
>EZNEC displays net current.

73's
Richard Clark, KB7QHC

1948. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 21:44:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022b96e_2@127.0.0.1>
Source record: 100519

Jim Kelley wrote:
> Convention dictates that current
> alternates in direction, and that standing waves don't. They stand.

Heh, heh, the seduction by the math model is worse than I thought.
You don't really believe that standing waves don't alternate
in direction, do you? Why do you think they call it a loop?
The standing wave current changes phase by 180 degrees every
half cycle.

> There exists no "reality" in which more current "goes in" one end of a
> device than "comes out" the other.

But Jim, the original argument was that the current into the
coil is the same magnitude and phase as the current out of
the coil. Do you think that is a true statement?
--
73, Cecil, W5DXP

1949. Re: Transmission Line = Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 21:45:00 UTC
From: richardharrison@webtv.net
Message-ID: <28986-4022B95C-203@storefull-3258.bay.webtv.net>
Source record: 100521

Tdonaly wrote:
"---I don`t have any better idea than you do what the current distribution in any individual coil is. I suppose it depends on its environment and its physical description."

Kraus` story of his discovery of the axial mode helical antenna starts on page 222 of "Antennas". Kraus was a new Ohio State University faculty member in 1946 when a famous scientist told him a helix wouldn`t work as an an antenna as he had already tried it with no success.

The expert`s statement challenged Kraus to try for himself, and the rest is history.

The first coil he wound was one wavelength in circumference and had 7 turns.. Kraus was pleased with the sharp end-fire beam of circularly-polarized energy from the open end of the coil. Kraus found the helical beam antenna had a resistive input and a wide frequency bandwidth.

At low frequencies, outgoing and reflected waves along the helix were almost equal in magnitude but as frequency increased, current distribution changed dramatically in the helix.

At a circumference of one wavelength, there were 3 regions. Near the antenna input, current decayed exponentially. Near the open end of the helix, there was a standing wave for a short distance. In the middle region, there was a relatively uniform current (small VSWR) which extended over most of the helix. Kraus gives the plots of the currents along the helix in Figure 8 on page 224.

Certainly, Tdonaly is correct. Different coils have different current distributions, but Kraus` contribution interests me.

Best regards, Richard Harrison, KB5WZI

1950. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 21:50:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022baec$1_2@127.0.0.1>
Source record: 100520

Richard Clark wrote:
> Well with the wisdom accumulated thus far you don't know how to use
> and or interpret EZNEC (fairly obvious). Let's look at the howlers:
>
>>forward current is always greater than reflected current,
>
> compared to:
>>the current flowing into... 0.18 amp
>>The current flowing out ... is 0.2 amp

And I'm howling at your ignorance. The current flowing "into"
and "out of" is *net* current, not forward or reflected current.
The net current is the phasor sum of the forward and reflected
currents. They are not the same thing at all.

> which describes the same direction: into bottom - out of top.

If the current into the bottom is at zero degrees and the
current out of the top is at 180 degrees, they are flowing
in opposite directions which is not "the same direction".
--
73, Cecil, W5DXP

1951. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 22:06:01 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4022BE49.68CA06C2@uci.edu>
Source record: 100522

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > Convention dictates that current
> > alternates in direction, and that standing waves don't. They stand.
>
> Heh, heh, the seduction by the math model is worse than I thought.

It's not so much a matter of being better or worse than you thought.
It's just different than what you think.

> You don't really believe that standing waves don't alternate
> in direction, do you?

I don't think anyone believes that standing waves alternate in
direction. Most people know that standing waves are stationary, and
that alternating current flows in alternating directions. But the two
things are not one in the same. You need to think more carefully about
what a standing wave is.
Sorry for the dangling prep.

> The standing wave current changes phase by 180 degrees every
> half cycle.

At a given point is space alternating current changes phase
continuously. But standing waves don't change position, and don't have
a direction, let alone a *CHANGE* in direction. The current plot on
your web page shows a standing wave plot of alterating current magnitude
as a function of position. The phase at each position changes
continuously with time.

Listen carefully. The plot indicates the magnitude (and potentially a
phase) of an alternating current as a function of position. The phase
at each position changes continuously with time. It's RF AC, but it's
not a traveling wave plot.

It's not a matter of current flow into or current flow out of; for a
standing wave plot it's a matter of the magnitude of current flowing
AT the specific positions. The current is alternating equally in both
directions. There isn't a *net* current flow.

73, Jim AC6XG

> > There exists no "reality" in which more current "goes in" one end of a
> > device than "comes out" the other.

> But Jim, the original argument was that the current into the
> coil is the same magnitude and phase as the current out of
> the coil.

But Cecil, the original argument wouldn't have been as big an argument if it had been more accurately stated. Or more precisely, if you hadn't subsequently misstated the facts Yuri had disclosed. It's true that the standing wave current at one end of the coil is greater than it is at the other end. You and I both know why that is so. But there are only so many ways that can be accurately stated before things begin to head off into the ridiculous, the obtuse, and the sublime - directions you have a marked propensity for taking. Reel it back in just a bit.

1952. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 22:46:58 UTC
From: tdonaly@aol.com
Message-ID: <20040205174658.27200.00001651@mb-m11.aol.com>
Source record: 100523

Cecil wrote,
>
>Tdonaly wrote:
>> If there were more of
>> something going out of the coil than going in, the coil would have to
>> be manufacturing that something. Cecil's ideas on waves are well
>> known and lead to some pretty unbelievable results.
>
>Tom, Shirley you understand that current can flow into something
>for 1/2 cycle and flow out of that something during the next 1/2
>cycle. That's what can happen with a phase-reversing coil. For
>1/2 cycle, current is flowing into both ends of the coil at the
>same time. For the other 1/2 cycle current is flowing out of both
>ends of the coil at the same time. The coil stores energy for the
>first 1/2 cycle and returns it during the next 1/2 cycle. I'm
>working on some new EZNEC files. On one file, the current flowing
>into the bottom of the coil, according to EZNEC, is 0.18 amp at
>-54 degrees. The current flowing out the top of the coil is 0.2
>amp at 126 degrees. Those two currents are flowing in exactly
>opposite directions. How do you explain that?
>--
>73, Cecil, W5DXP
>

So the coil acts precisely as if it were a capacitor. That's what capacitors
do,
store and release charge. Is that what you're saying? Your coil is getting
more versatile all the time.
73.
Tom Donaly, KA6RUH

1953. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 22:58:14 UTC
From: tdonaly@aol.com
Message-ID: <20040205175814.27200.00001653@mb-m11.aol.com>
Source record: 100524

Cecil wrote,
>
>Heh, heh, the seduction by the math model is worse than I thought.
>

:-)

73,
Tom Donaly, KA6RUH

1954. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 23:00:24 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvuhu5$39kb$1@news3.infoave.net>
Source record: 100525

1. cause currect flow in a coil.
2. remove currect source.
3. Magnetic field collapses inducing voltage in the coil.
4. Doesn't it store energy in the magnetic field?

"Tdonaly" <tdonaly@aol.com> wrote in message to
Cecil...

> So the coil acts precisely as if it were a capacitor. That's what
capacitors
> do,
> store and release charge. Is that what you're saying? Your coil is
getting
> more versatile all the time.
> 73.
> Tom Donaly, KA6RUH
>
>

1955. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 23:03:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022cbec$1_2@127.0.0.1>
Source record: 100526

Jim Kelley wrote:
> I don't think anyone believes that standing waves alternate in
> direction.

The currents are referenced to the source. When the forward current and reflected current are in phase at zero degrees, they are at a maximum and flowing toward the load so their sum, the net current, is flowing toward the load. 1/2 cycle later, the forward current and reflected current are in phase at 180 degrees so their sum, the net current, is flowing toward the source.

> You need to think more carefully about what a standing wave is.

You need to understand that AC current flows one direction for 1/2 cycle and the opposite direction for the other 1/2 cycle. Current cannot stand still. It must flow. And if it's AC current, it always changes direction during the cycle. Standing current waves are AC and neither DC nor AC current can stand still. If you install a one ohm resistor at a current maximum point, the voltage in phase with the current will be changing phase by 180 degrees every 1/2 cycle. The sign of the cosine of the current phase indicates direction.

> It's not a matter of current flow into or current flow out of; for a
> standing wave plot it's a matter of the magnitude of current flowing
> *AT* the specific positions.

Current cannot flow "at" a specific position, Jim. Current has to flow through a specific position in one of two directions. For 1/2 cycle, it flows in one direction and for the other 1/2 cycle it flows in the opposite direction. Like I said, the seduction by your math models is worse than I thought.

At everywhere except the current nulls, the standing wave current changes directions every 1/2 cycle. May I suggest you review phasor addition and the meaning of the sign of the cosine phase when dealing with current.
--
73, Cecil, W5DXP

1956. Re: randon wire newbie question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 23:06:16 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvui95$39qn$1@news3.infoave.net>
Source record: 100527

For shotwave listening, string up what you can and get a small antenna tuner. This will allow you to peak the signal on the band your listen to.

You didn't say what type SWLing your doing. If your going after Broadcast DX, that is one thing, if trying to receive high power HF broadcasts another. Both have unique solutions.

Tell us what you are interested in chasing and we can give you a more intelligent answer.

If your answer is "everything", your purposed solution will work well on some and poorly on others.

"lethal" <sa.uk@spamtrapvirgin.net> wrote in message news:1DxUb.48349$OA3.15172774@newsfep2-win.server.ntli.net...
> Hi folks,
>
> firstly, i think the Virgin newsgroup/email server is playing up because i've posted this several time to various NG's but none
> have shown up. Humbliest appologies if this has show all those times , it's not me messing about -- if they did show, i missed
> them and the replies. If not, i hope this one gets through as i could do with the help and advice.
>
> i'm going to put up a random wire for general SWL . I have a kit w/ 25 mtrs of wire / balun / coax feed ready to hang and receive.
> Problem is my garden dimensions.
>
> it's 8 mtrs wide , 10 mtrs long and diagonally 12 mtrs across - more or less a square shape.
>
> can anyone help with these suggestions on how to run the wire.
>
> 1) i've read you can't fold the wire back on itself. Could i come from one corner of my house , follow the diagonal 12 mtrs
> across the garden , support the wire on a pole at the opposite corner , then go back towards the house along the 10 mtr distance ?
> Does this constitute folding the wire back on itself ? The angle of the bend at the pole would be approx 45 deg. with the wire in
> a V shape yet the wires would be an increasing distance apart up to the house. Would this be a problem ?
>
> 2) I can fit in an inverted L but this would only be 16 mtrs of wire not including coax feed. The coax feed would be coming out of
> the loft and onto a bracket which would support the balun and straight

onto the horizontal length. The vertical bit would then
> drop down at the far end . Would this work as all the pics of inverted L's
ive seen show the feed starting at the bottom of the
> vertical first which then goes up to the horizontal and out
>
> height isn't too much of a problem as i can get it over the guttering
level. This is all for RX not TX
>
> sorry if these are basic, basic questions. I 'll be experimenting later
but for know, i just want to get it all up and running as
> best as possible.
>
>
>
> thanx again as usual,
> Simon
>
>
>
> --
>
>
>
****
****
> i want to die peacefully in my sleep , same as my grandad - not like his
passengers,all screaming and shouting
>
****
****
>
>

1957. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 23:53:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022d842$1_7@corp.newsgroups.com>
Source record: 100528

Tdonaly wrote:
> So the coil acts precisely as if it were a capacitor. That's what capacitors
> do, store and release charge. Is that what you're saying? Your coil is getting
> more versatile all the time.

I am absolutely amazed at the ignorance on this newsgroup. For a resonant
tank circuit, while the cap is storing charge, the coil is releasing charge.
While the cap is releasing charge, the coil is storing charge. Doesn't
anyone understand resonance?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1958. Re: randon wire newbie question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 23:56:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022d8e4_7@corp.newsgroups.com>
Source record: 100529

W4JLE wrote:
> For shotwave listening,

You're not supposed to listen to the shotwave. You are supposed to
wear ear protectors. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1959. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-05 23:58:43 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4022D8B3.B1BBFC0B@uci.edu>
Source record: 100532

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > I don't think anyone believes that standing waves alternate in
> > direction.
>
> The currents are referenced to the source. When the forward
> current and reflected current are in phase at zero degrees,
> they are at a maximum and flowing toward the load so their sum,
> the net current, is flowing toward the load. 1/2 cycle later,
> the forward current and reflected current are in phase at
> 180 degrees so their sum, the net current, is flowing toward
> the source.

So, now try to align that point of view with the fact that standing
waves are stationary - that current flows equally in both directions.
Combine it with the fact that there isn't a net flow of current into an
antenna. As many electrons flow "out" as flow back "in" to it.

> > You need to think more carefully about what a standing wave is.
>
> You need to understand that AC current flows one direction for 1/2
> cycle and the opposite direction for the other 1/2 cycle.

You need to run a diagnostic on that "logic analyzer" of yours. ;-)
It's giving you some bad readings on the available data.

> Current
> cannot stand still.

Profound. Note that I made no claim to the contrary.

> Standing current waves
> are AC and neither DC nor AC current can stand still.

Did you understand anything I wrote? You seem to be grappling with some
pretty sophomoric notions here, Cecil.

> > It's not a matter of current flow into or current flow out of; for a
> > standing wave plot it's a matter of the magnitude of current flowing
> > *AT* the specific positions.

> Current cannot flow "at" a specific position, Jim.

:-) The plot you made on your web page shows the current flow *AT*
every position along two 1/4 wave radiators.

> Like I said, the seduction by your math models is worse than I
> thought.

Rainman always says he's an excellent driver. You're like him in some ways, Cecil.

73, Jim AC6XG

1960. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 00:02:38 UTC
From: tdonaly@aol.com
Message-ID: <20040205190238.27200.00001656@mb-m11.aol.com>
Source record: 100530

Cecil wrote,
>
>The currents are referenced to the source. When the forward
>current and reflected current are in phase at zero degrees,
>they are at a maximum and flowing toward the load so their sum,
>the net current, is flowing toward the load. 1/2 cycle later,
>the forward current and reflected current are in phase at
>180 degrees so their sum, the net current, is flowing toward
>the source.
>
(snip)

Hi Cecil,
Actually, net current doesn't flow at all in a standing wave. Current is
the rate of change of charge, dQ/dt. In a standing wave, the rate stays put.
The charge may be vibrating wildly at a point, but the average rate
of change (or even the peak, if that's what's important to you) doesn't move.
If it does move, the wave is a traveling wave, not a standing wave.
If you were right, then the rate of change of charge would alternately
move into and out of your miraculous coil. In other words, there would be
an oscillating traveling wave moving first one way and then another, into and
out of the coil, and it would do so at both ends, as in some particularly
lurid,
x-rated movie.
This is what happens when you don't understand the math, Cecil. You
make stupid mistakes based on a faulty understanding of the fundamentals.
I hate to be a fundamentalist like your minister, but I'm sure beginning to
appreciate his approach.
73,
Tom Donaly, KA6RUH

1961. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 00:14:16 UTC
From: tdonaly@aol.com
Message-ID: <20040205191416.27200.00001657@mb-m11.aol.com>
Source record: 100531

W4JLE wrote,
>
>1. cause currect flow in a coil.
>2. remove currect source.
>3. Magnetic field collapses inducing voltage in the coil.
>4. Doesn't it store energy in the magnetic field?
>
>"Tdonaly" <tdonaly@aol.com> wrote in message to
>Cecil...
>
>> So the coil acts precisely as if it were a capacitor. That's what
>capacitors
>> do,
>> store and release charge. Is that what you're saying? Your coil is
>getting
>> more versatile all the time.
>> 73.
>> Tom Donaly, KA6RUH
>>
>>
>

I wrote "charge," not "energy." There's a difference. Cecil writes that
current, by which I think he means charge, can flow into both ends of
a coil at the same time. He's right, if he indeed is talking about charge
and not current, in which case, the charge density will increase in some
part of the coil, energy will be stored in an electric field, and the coil will

be acting just like a capacitor (with the capacitance to free space
understood).
73,
Tom Donaly, KA6RUH

1962. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 00:50:32 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <rxBUb.226311$I06.2482529@attbi_s01>
Source record: 100533

Cecil
I would like to ask you a question regarding inductance coils even tho you
know I believe the current is constant
An inductor develops a field that travels thru the core
and then slays out thru 360 degrees to return to the other end of the coil.
Thes lines are directly correllated to the current flow within the
inductance and are in equilibrium
in terms of mechanical forces.
If the current is not constant thru-out the inductance
then there are more lines of force at one end than there is at the other,
such that the ends would not repel each other,one end will domimate
something I have not seen happen.
How do you account for the inbalance of the end fields
because of so called current gradient that you refer to.If there is no
imbalance what happens to dissapate the energy created by the increase of
current flow ?
I would appreciate your input on the above problem.
even tho it appears so simplistic.
Regards
Artl
i

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:401c261b$1_7@corp.newsgroups.com...
> Art Unwin KB9MZ wrote:
> > Did you find something wrong with my suggestion above?
>
> Nope, nothing "wrong". I just avoid making assertions when I'm
> not 95% certain that I am correct. Thus, most of the time, I am
> unresponsive. I am 95% certain that the average humongous mobile
> loading coil is not "physically small" and is more like a
> certain percentage of a helical antenna which indeed does
> obviously demonstrate a net current gradient.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1963. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 01:18:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rmq520dacvg0rsfrj8at3o2ctg8o5kft9f@4ax.com>
Source record: 100534

On Thu, 05 Feb 2004 15:50:37 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>The net current is the phasor sum of the forward and reflected
>currents.
...
> they are flowing
>in opposite directions
Uh-Huh

1964. Re: Best antenna to go through triple-pane glass

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 01:19:05 UTC
From: VE1BLL@rac.ca
Message-ID: <8a615218.0402051719.6aeb5480@posting.google.com>
Source record: 100535

"LinkTech"
> Glass only starts acting as a lossy medium when over 8 Ghz.

Depends how far over 8 GHz...

Most common glass is reasonably low loss in the 400 to 700 THz
(terahertz, 10^12) 'band'.

;-)

More seriously, 'Low-E' (low emissivity) glass has a thin metal
coating that might make the glass less transparent at RF. I'm not
sure about the magnitude of the effect at RF. It certainly works at
IR.

1965. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 01:27:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022ee6a_2@corp.newsgroups.com>
Source record: 100536

Jim Kelley wrote:
> So, now try to align that point of view with the fact that standing
> waves are stationary - that current flows equally in both directions.

Are you aware that twice each cycle, the standing wave current is
zero at *every* point up and down the transmission line? If so, you
must be aware that the standing wave current changes directions
twice each cycle on each side of that zero state.

> You need to run a diagnostic on that "logic analyzer" of yours. ;-)
> It's giving you some bad readings on the available data.

An absolutely meaningless statement unless you are trying to create
a diversion away from the facts.

> Profound. Note that I made no claim to the contrary.

Huh, you said that standing current waves stand still. Got news for
you, Jim. Standing wave current doesn't stand still. Standing current
waves reverse direction every 1/2 cycle. Take a look for yourself
with an o'scope.

> Did you understand anything I wrote?

Yes, I understand that you have been seduced by your AC math model based
on a DC model. For all AC waves, including standing waves, the current
flows in the opposite directions every 1/2 cycle. I am amazed that a
physics prof doesn't understand that simple fact of physics.

Take a rope, run it through a pulley, and hold one end in each hand.
Pull on one end. The other end pulls on your other hand. That's the
way AC works. AC current reverses direction every 1/2 cycle.

> :-) The plot you made on your web page shows the current flow *AT*
> every position along two 1/4 wave radiators.

That's a snapshot, Jim, given by EZNEC, referenced to the source. The
current obviously changes direction and phase every 1/2 cycle in real
time. Have you never observed standing waves on an o'scope? They look
like a kid's jump rope, changing direction every 1/2 cycle. The difference
is that 'up' on the jump rope equates to 'toward the load' on a transmission
line.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1966. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 01:40:52 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022f173_2@corp.newsgroups.com>
Source record: 100537

Tdonaly wrote:
> Actually, net current doesn't flow at all in a standing wave.

Instantaneous standing wave current moves in one direction during
1/2 cycle, and in the opposite direction during the next 1/2 cycle.
If you think otherwise, you are simply wrong. Have you never observed
standing waves on an o'scope? It looks like a kid's jump rope.

And Tom, one of the strictest laws of physics is that current cannot
stand still. Saying that "current doesn't flow at all" is ridiculous.

When the current is flowing into both ends of the coil at the same time,
charge is being stored in the coil. 1/2 cycle later, the charge flows
out of the coil at both ends.

In one of my examples, the current at the bottom of the coil is 0.18
at - 54 degrees. The current at the top of the coil is 0.2 at 126 degrees.
Last time I checked, 54+126 = 180 degrees indicating that the current
at the bottom of the coil is 180 degrees out of phase with the current
at the top of the coil. That means the two currents are flowing in
opposite directions at the two ends of the coil.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1967. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 01:46:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022f2c5$1_2@corp.newsgroups.com>
Source record: 100538

Tdonaly wrote:
> I wrote "charge," not "energy." There's a difference. Cecil writes that
> current, by which I think he means charge, can flow into both ends of
> a coil at the same time. He's right, if he indeed is talking about charge
> and not current, in which case, the charge density will increase in some
> part of the coil, energy will be stored in an electric field, and the coil will
> be acting just like a capacitor (with the capacitance to free space
> understood).

Nice crawfishing job, Tom. The direction of charge flow is the same as
the direction of current flow, assuming electron current flow (as opposed
to hole current flow). If charge is flowing into each end of the coil at
the same time, then instantaneous current is, by definition, flowing into
each end of the coil at the same time for 1/2 of the RF cycle. Good to
see you coming to your senses like I knew you would.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1968. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 01:55:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4022f4fb_2@corp.newsgroups.com>
Source record: 100539

Art Unwin KB9MZ wrote:

> Cecil
> I would like to ask you a question regarding inductance coils even tho you
> know I believe the current is constant

Current *is* constant in EZNEC's lumped inductive reactances, Art, but
that doesn't represent reality. This weekend, or maybe even tonight, I
will be posting coils modeled out of wire, like Wes has done, to make
my point.

> An inductor develops a field that travels thru the core
> and then slays out thru 360 degrees to return to the other end of the coil.
> Thes lines are directly correllated to the current flow within the
> inductance and are in equilibrium
> in terms of mechanical forces.
> If the current is not constant thru-out the inductance
> then there are more lines of force at one end than there is at the other,
> such that the ends would not repel each other,one end will domimate
> something I have not seen happen.
> How do you account for the inbalance of the end fields
> because of so called current gradient that you refer to.If there is no
> imbalance what happens to dissapate the energy created by the increase of
> current flow ?
> I would appreciate your input on the above problem.
> even tho it appears so simplistic.

Capacitance is the answer, Art. If a transmission line didn't possess capacitance,
it wouldn't be able to exchange energy between the capacitive reactance and the
inductive reactance to allow the currents at 1/2WL intervals to be traveling in
opposite directions. A coil completely devoid of any capacitance would indeed have
a constant current. But there are no real-world coils that are completely devoid of
capacitance as illustrated by Roy's and Tom's real-world measurements.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1969. antenna evaluation quest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 03:16:08 UTC
From: Uwe Langmesser <outhouse@midcoast.com>
Message-ID: <BC487125.C63C%outhouse@midcoast.com>
Source record: 100540

I recently set up my first 2m transceiver with a makeshift antenna and I would be very interested to learn more how to improve my little set up mostly by working on the antenna side of it.

Now there seems to be a bewildering number of things one needs to know which is why I thought I turn to this forum for guidance.

My question is if I want to build and improve my own antennas, what sort of measuring devices would I need to build or get??

An SWR meter, I think, will tell me-hopefully- how well my antenna and radio are matched, but it will not tell me anything about how well my antennas focus the radiation in a particular direction. How could I measure that? Will a field strength meter do that?

And where do I find plans for these types of devices, most swr bridges are for the HF band, I haven't found anything simple for 144MHZ.

Your help in starting me out in the right direction would be appreciated

Uwe

1970. 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 03:36:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40230c81_2@corp.newsgroups.com>
Source record: 100541

Thanks to Wes, n7ws, I found out how easy it is to model a helical coil with EZNEC. The following three antennas were modeled using the same coil, 4.5 turns, 12 inch diameter, 10.8 inches long, using approximately 14 feet of wire. The antennas are similar. The frequencies are different to illustrate three different arguments. EZNEC zero-impedance loads were placed directly below and directly above the coil to ascertain the currents. The accompanying .ez files can be downloaded and run on EZNEC if desired.

1. The first antenna is a simple center-loaded 1/4WL monopole. The lengths of wire above and below the coil are approximately the same as the length of wire used in the coil. This one illustrates the current taper through the loading coil. Calculations indicate that the coil occupies approximately 20% of the electrical length of the antenna.

http://www.qsl.net/w5dxp/octcoil1.gif
http://www.qsl.net/w5dxp/octcoil1.ez

2. The second antenna is electrically 3/4 wavelength long. This one illustrates how the current at the top of the loading coil can be greater than the current at the bottom of the loading coil.

http://www.qsl.net/w5dxp/octcoil2.gif
http://www.qsl.net/w5dxp/octcoil2.ez

3. The third antenna illustrates the phase-reversing coil described by Kraus in _Antennas_For_All_Applications_, 3rd edition. It is similar in concept to the Diamond NR72B when used on 70 cm. The current at the bottom of the coil is 180 degrees different in phase from the current at the top of the coil which means - for 1/2 of the RF cycle, current is flowing into both ends of the coil at the same time. For the other 1/2 cycle, current is flowing out of both ends of the coil at the same time.

http://www.qsl.net/w5dxp/octcoil3.gif
http://www.qsl.net/w5dxp/octcoil3.ez

It appears to me that EZNEC handles the segmented wire coils in a manner related to the real world.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1971. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 03:37:41 UTC
From: Al - VA3KAI <niittyma@sympatico.ca>
Message-ID: <IZDUb.7056$ZN1.588439@news20.bellglobal.com>
Source record: 100543

I have a Montana van and use a 13" high, open coil (Comet, I think), 2M/440 magmount in the centre of the roof - looks very much like a cellular antenna.. It clears 95% of the garages and bends a bit for the rest. The large ground-plane nicely makes up for the short length - when I switch to a 36" model, the signal difference is not too great as in most cases I operate within 25 miles of my repeaters. I switch to the longer antenna on the highway trips.

The coax runs across the roof rack to the left side (tie-wrapped) and follows the roof channel via the door rubber molding to the front driver's door and under the dash. No leaks, works well and easy to change antennas.

Good luck..... Al

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message news:20040203231443.28384.00001274@mb-m15.aol.com...
> I realize this is a common thread but I have actually looked through the
> suggestions and still am unsure of what to get. I am getting an ic2100 mobile
> and want to put it in my mini-van. . .well . . .my wife's mini-van. It is the
> vehicle we do the most traveling in. Rs sells a magmount scanner/2m antenna.
> She really does not want that. She shops a lot and goes into parking garages
> so it needs to hide or fold like the larsens. I have been told NO holes in the
> vehicle. what is my recourse for this conundrum? Oh, and the final kicker,
> can it be done for under 50 bucks?
>
> Thanks
> 73
> Greg
> ki4bbl@arrl.net

1972. Re: antenna evaluation quest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 03:47:11 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvv2ns$3hia$1@news3.infoave.net>
Source record: 100542

If your going to get involved building antennas, I would suggest that you get an antenna analyzer such as the MFJ unit.

For determining patterns, use the AUT (antenna under test) as a receive antenna and a dipole for the transmit. This will allow you to change the dipole from virtical to horizontal.

Excite the dipole with a low power signal. The MFJ can be used as the transmitter.

You may then rotate the AUT and take readings on the receiver.

Some means of rasing and lowering the transmitting antenna is nice so you can get elevation patterns as well.

Always using the same transmitting dipole will allow you to compare various antennas, if not with exact data, at least comparative data. The key is to eliminate as many variables as possible. I always use the same coax on the AUT, mount it on the same mast, so that the main variable is the antenna.

My setup uses a homebuilt field strength meter and a calibrated antenuator. A computer interface pulses the rotor and records the output from an A/D converter (fed from the above setup) on the computer. This allows me to print out the patterns.

Getting started, a receiver with an S-meter can be used along with a calibrated antenuator.

I am sure that in my ramblings I have forgotten something, but you get the idea...

"Uwe Langmesser" <outhouse@midcoast.com> wrote in message news:BC487125.C63C%outhouse@midcoast.com...
> I recently set up my first 2m transceiver with a makeshift antenna and I
> would be very interested to learn more how to improve my little set up
> mostly by working on the antenna side of it.
>
> Now there seems to be a bewildering number of things one needs to know which
> is why I thought I turn to this forum for guidance.
>
> My question is if I want to build and improve my own antennas, what sort of
> measuring devices would I need to build or get??
>
> An SWR meter, I think, will tell me-hopefully- how well my antenna and radio

> are matched, but it will not tell me anything about how well my antennas
> focus the radiation in a particular direction. How could I measure that?
> Will a field strength meter do that?
>
> And where do I find plans for these types of devices, most swr bridges are
> for the HF band, I haven't found anything simple for 144MHZ.
>
> Your help in starting me out in the right direction would be appreciated
>
> Uwe
>

1973. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 03:54:39 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <bvv35s$3hpj$1@news3.infoave.net>
Source record: 100544

Welcome back from the dark side Cecil...

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40230c81_2@corp.newsgroups.com...
> Thanks to Wes, n7ws, I found out how easy it is to model a helical coil
! =-----

1974. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 03:57:29 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040205225729.27248.00001483@mb-m11.aol.com>
Source record: 100545

>
>It appears to me that EZNEC handles the segmented wire coils in a manner
>related to the real world.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

Eggscellent!!!
Thanks for putting up with the flat earth society.

Yuri, C6AYB

1975. Re: 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 03:59:57 UTC
From: nightowls627@aol.comnojunk
Message-ID: <20040205225957.26428.00001710@mb-m07.aol.com>
Source record: 100546

Thank you for all the suggestions. Somebody suggested a metal plate grounded to the vehicle from underneath the hood. I recently saw a city vehicle with that done. Pretty nice and seems to solve some problems so I am going to try that with a motorola antenna. As for all the wife jokes . . . thanks. I am not too witty and they're great comebacks for when we talk about antennas. (Considering she is tired of seeing the feedlines from the two in the attic! I keep telling her I won't need 50 feet in the van!)
73
Greg
ki4bbl@arrl.net

1976. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 04:02:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4c4620lg86ne88pqclq001a050j6odjemo@4ax.com>
Source record: 100547

On Thu, 05 Feb 2004 19:40:52 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Instantaneous standing wave current moves
UhHuh

1977. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 04:06:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40231381$1_2@corp.newsgroups.com>
Source record: 100548

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Instantaneous standing wave current moves
>
> UhHuh

Richard, can you give an example of a situation where RF current
ever stands still? If charges are not moving, how can there be any
current? If a tree falls in the forest, ...
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1978. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 04:12:57 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <or4620lr8tlp841pqn2bsjf36iksf4vgcf@4ax.com>
Source record: 100549

On 5 Feb 2004 16:28:10 GMT, "Richard" <nearlynews_email@ntlworld.com>
wrote:

>Eric K. Weber wrote:
>> Greetings:
>>
>> Radio Shack's antennas were manufactured by Winegard.....
>>
>> see :
>> http://www.winegard.com/offair/prostar1000vhffmyagi.htm#6000
>>
>> Is this what you had in mind?
>>
>> Rgds:
>> Eric
>
>Was Radioshacks offering a folded dipole arrangement?
>
>
Yes, it was just as shown in the Winegard site. Installed one at a
friends mountain cabin and he went from no FM reception to being able
to receive 3. Might not sound great, but for a cabin nestled in the
hills and 75 miles from the nearest broadcaster that isn't too bad.

1979. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 04:48:26 UTC
From: James Brennan <absalomfunk@sbcglobal.net>
Message-ID: <u0FUb.1167$6r5.106@newssvr23.news.prodigy.com>
Source record: 100550
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

As a younger Ham (27), who could have gone no-code, I say keep the code. It's a right of passage, plus the ability to send/receive means multipliers on contest weekends... hi hi.

I know a no-code who can't ground an antenna.

I know a no-code who has built several homebrew rigs that all work marvellously.

The lack of code in liscensing has NOTHING to do with actual mechanical ability, it has to do with REALLY wanting to be a part of a fraternity that can and does do a lot of good not only for the local communtiy, but the international one as well.

While I will agree that the hobby of amateur radio has a shrinking population (due largely in part to what sent you this message... the internet) and needs some revitalization, lessening the requirements is not the way to do it. Why not promote ARES or RACES. Some of the most fun I've ever had was volunteering in St. Charles county Missouri back in 1993 when 2/3 of the county was under water. I got to see a lot of things and go a lot of places that the average "civilian" wouldn't be allowed to go. THAT'S NEAT!

At the same time, younger members of the community should not be shunned as me and my friends were by certain hams just because of our age. We used to get run off repeaters at 3 am on Friday nights because we were "keeping people up." TURN OFF YOUR RIG WHEN YOU'RE ASLEEP!!! We were told it was because of our age... "no 16 yr. old could possibly have a clue." THAT'S NOT NEAT! To this day, there are local hams who won't talk to me when I call "monitoring" on 2 meters just because of who I am... a grudge based on age held for 11 years... ???

At the same time, I"ve made some of my best friends by trolling VHF/UHF (even though HF is my true love). My first directional 10m antenna was given to me by a guy who was impressed that I had a confirmed QSO from Kwajellain Atoll. No I break pile-ups on a regular basis. Thanks Scott.

Anyway... that's my 2 cents...

73's
KB0JNF (I'm PROUD of my novice callsign)
James Brennan

PS what is echolink? That takes all the fun out of a contact...

1980. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 04:51:49 UTC
From: tdonaly@aol.com
Message-ID: <20040205235149.19998.00001365@mb-m17.aol.com>
Source record: 100551

>
>Tdonaly wrote:
>> Actually, net current doesn't flow at all in a standing wave.
>
>Instantaneous standing wave current moves in one direction during
>1/2 cycle, and in the opposite direction during the next 1/2 cycle.
>If you think otherwise, you are simply wrong. Have you never observed
>standing waves on an o'scope? It looks like a kid's jump rope.
>

You didn't read the rest of my posting. Current is dQ/dt, the rate of
flow of charge with time.

And Tom, one of the strictest laws of physics is that current cannot
>stand still. Saying that "current doesn't flow at all" is ridiculous.
>

Wrong. It's the charge that moves. In general, if you're talking about
instantaneous current, it changes constantly at a point. But you never
talk about instantaneous current, Cecil, the current you always refer to
is RMS current. However, if you want to refer to instantaneous current,
that's fine with me. In that case, you have a traveling, standing wave
oscillating in and out of your coil. That's interesting, but it isn't what is
happening.

>When the current is flowing into both ends of the coil at the same time,
>charge is being stored in the coil. 1/2 cycle later, the charge flows
>out of the coil at both ends.
>
>In one of my examples, the current at the bottom of the coil is 0.18
>at - 54 degrees. The current at the top of the coil is 0.2 at 126 degrees.
>Last time I checked, 54+126 = 180 degrees indicating that the current
>at the bottom of the coil is 180 degrees out of phase with the current
>at the top of the coil. That means the two currents are flowing in
>opposite directions at the two ends of the coil.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Actually, the two charge collections are oscillating in opposite directions at
the same time, and, I'll tell you that each individual infinitesimal volume of
charge doesn't go very far before it's whacked back the other way.
The problem here is that you don't remember your basic definition of
current. Go dig out your old physics book and read the definition.
73,
Tom Donaly

1981. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 05:02:30 UTC
From: tdonaly@aol.com
Message-ID: <20040206000230.19998.00001366@mb-m17.aol.com>
Source record: 100552

Cecil wrote,
>
>Tdonaly wrote:
>> I wrote "charge," not "energy." There's a difference. Cecil writes that
>> current, by which I think he means charge, can flow into both ends of
>> a coil at the same time. He's right, if he indeed is talking about charge
>> and not current, in which case, the charge density will increase in some
>> part of the coil, energy will be stored in an electric field, and the coil
>will
>> be acting just like a capacitor (with the capacitance to free space
>> understood).
>
>Nice crawfishing job, Tom. The direction of charge flow is the same as
>the direction of current flow, assuming electron current flow (as opposed
>to hole current flow). If charge is flowing into each end of the coil at
>the same time, then instantaneous current is, by definition, flowing into
>each end of the coil at the same time for 1/2 of the RF cycle. Good to
>see you coming to your senses like I knew you would.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

Instantaneous current changes with time in a standing wave but it doesn't
go anywhere. The only way current can go anywhere is to be part of a
travelling wave, in which case it stays the same in time, but travels in
space. You want it to do both, Cecil, and that doesn't happen very often.
73,
Tom Donaly
(PS Check your definition of current, again.)

1982. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 05:16:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bj8620tri4jcmps17i42c8f6auldmm98c5@4ax.com>
Source record: 100553

On Thu, 05 Feb 2004 22:06:11 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>Instantaneous standing wave current moves
>>
>> UhHuh
>
>Richard, can you give an example of
Obviously you've been seduced by the fictions of your own invention.

1983. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 05:21:42 UTC
From: tdonaly@aol.com
Message-ID: <20040206002142.19998.00001369@mb-m17.aol.com>
Source record: 100554

Cecil wrote,
>
>Thanks to Wes, n7ws, I found out how easy it is to model a helical coil
>with EZNEC. The following three antennas were modeled using the same
>coil, 4.5 turns, 12 inch diameter, 10.8 inches long, using approximately
>14 feet of wire. The antennas are similar. The frequencies are different
>to illustrate three different arguments. EZNEC zero-impedance loads were
>placed directly below and directly above the coil to ascertain the currents.
>The accompanying .ez files can be downloaded and run on EZNEC if desired.
>

It certainly is interesting how a person who, only a short time ago was railing

against "the math model," suddenly gets religion when he thinks it agrees with
him. EZNEC not only uses math to reach its conclusions, that's *all* it uses,
plus
a few assumptions about how current is distributed over antenna segments.
Glad you've joined the fold, brother Moore.
73,
Tom Donaly, KA6RUH

1984. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 07:59:31 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402052359.5ea1df17@posting.google.com>
Source record: 100555

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> >
> > > 275 feet of garden variety RG8Foam would have a loss of about 1.5 db at
> 10
> > > MHz. LMR400 about 1db. Do NOT use RG213.
> >
> > What's wrong with RG213?
>
> It has twice the loss.
>
> Tam/WB2TT

I show it or regular rg-8 to have only about .2 db more loss per 100
ft than foam rg-8. "10 mhz" So 275 ft would be appx 2.1-2.2 or so db
vs the 1.5 db. I would consider twice the loss to be 3 db loss.
.6 db should be hardly noticable. MK

1985. UHF channel spacing,avoiding intermod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 10:46:02 UTC
From: Joel Dorfan <bdorfan@fred.icon.co.za>
Message-ID: <W7mdnX4uYcXM7b7dRVn-sA@is.co.za>
Source record: 100556

We have a number of UHF television channels as well as
VCR's, Satellite decoders etc. all with UHF modulators.
One needs to carefuly choose which UHF channel to modulate on when setting up the VCR, decoder etc. so that they dont interfere with each other or the off air UHF signals.

Some time ago I came across a table that assisted with the choosing of various UHF channels (taking into account the off air channels) to avoid multiples and adjacent channel interference. I can not seem to find this table anymore.

Do you know of an algorithm to use to assist with the above? The UHF spectrum for TV video is from 21(471.25 Mhz) to 68 (847.25Mhz) with audio being 6Mz higher in frequency.

If for example we have UHF signals on channels 39, 43, 37 and 47 which of the remaining channels would be acceptable to use for the modulation of the other devices.

It has been suggested to avoid n-1,n+1,n+5 and n+9 where n is a UHF channel currently in use. Is this correct?

Thanks

Joel

ZS6CBA

1986. Re: NEC2 translation to C

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 11:17:21 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0402060317.6c6c40c4@posting.google.com>
Source record: 100557

There are only very few things I can think of why someone would like
to have more readable Nec2 code or port it to another language..

1) To improve existing Nec2 code or add additional 'features'.
Till now however I did not find very much (public available)
additions to the default Nec2 core.

2) To understand how the Nec2 program does all calculation...
If you are able to understand the whole thing I definitely
think you should look further and not stay stucked on Nec-2.

Otherwise I see no explicit reason why to port the (thoroughly tested)
Nec2 sources from Fortran to C (or Cobol??). As a middle course one
could consider a port to F77 or even F90. This would make things much
more readable, but with a reduced risk of introducing new bugs....

I once integrated the original Nec2d- and the SomNec.exe's into a
single executable to also use the Sommerfeld ground inside a frequency
loop, so I am not completely unknown with the problems involved. (See
Nec2dXS.exe (with sources) on the famous
www.qsl.net/wb6tpu/swindex.html page)

For freeware F77 compilers see: www.mingw.org or www.delorie.com/djgpp

Nevertheless I very much welcome the effort of Neoklis of porting Nec2
sources to C. Who knows what Neoklis will do next to please us all...

Greetings,
Arie.

1987. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 12:12:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023858a_7@corp.newsgroups.com>
Source record: 100558

Tdonaly wrote:
> Cecil wrote,
>
>>Thanks to Wes, n7ws, I found out how easy it is to model a helical coil
>>with EZNEC. The following three antennas were modeled using the same
>>coil, 4.5 turns, 12 inch diameter, 10.8 inches long, using approximately
>>14 feet of wire. The antennas are similar. The frequencies are different
>>to illustrate three different arguments. EZNEC zero-impedance loads were
>>placed directly below and directly above the coil to ascertain the currents.
>>The accompanying .ez files can be downloaded and run on EZNEC if desired.
>
> It certainly is interesting how a person who, only a short time ago was railing
> against "the math model," suddenly gets religion when he thinks it agrees with
> him.

It is certainly interesting that you choose to mount an ad hominem attack
instead of providing an iota of technical content.

I do not rail against all math models, just the ones that don't match
reality. I require my math models to give the correct answer. Others
obviously have lower standards for math models than I do.

One rock plus one rock equals two rocks is a math model with which I
fully agree. Coils with zero capacitance is a math model with which
I disagree.

Now please tell us why lumped inductive reactances don't agree with
wire segment coils, stubs, or reality.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1988. Re: antenna evaluation quest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 13:36:23 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <vq5720lo516aqdmus4u42mhnjb2mps0bs0@4ax.com>
Source record: 100559

On Fri, 06 Feb 2004 03:16:08 GMT, Uwe Langmesser
<outhouse@midcoast.com> wrote:

>
>And where do I find plans for these types of devices, most swr bridges are
>for the HF band, I haven't found anything simple for 144MHZ.

MFJ has several inexpensive swr meters for the vhf range. See
http://www.mfjenterprises

Or, you can spring for the more expensive antenna analyzers mfj makes,
which include swr measuring capabilities.

bob
jk5qwg
>
>Your help in starting me out in the right direction would be appreciated
>
>Uwe

1989. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 14:47:48 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023a9e4_6@corp.newsgroups.com>
Source record: 100560

Art Unwin KB9MZ wrote:
> ... surely Bart's posting gives you something to ponder upon as
> your present stance has not won over any converts and which could possibly
> be presented in a different manner to make your case more digestable.

Bart, an intelligent, educated, and knowledgeable engineer, and I have
been in email contact for years, so I have pondered much of what he
has said. His virtual "center tap to ground" is certainly a valid concept.

But I can demonstrate a 180 degree phase reversal in a helical coil
in free space so the capacitance to ground is not the complete answer
to what is happening. A real-world helical coil is made out of real-world
wire and possesses some of the characteristics of real-world wire including
the ability to change the phase of the current every 1/2 wavelength
whether over ground or in free space. Light exhibits the same
characteristic. Technically, RF is light, just not visible light.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1990. FOR SALE- KLM ANTENNA PACKAGE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 15:11:16 UTC
From: n2ion@aol.com
Message-ID: <20040206101116.27163.00001427@mb-m11.aol.com>
Source record: 100561

KLM ANTENNA PACKAGE FOR SALE

1-KLM 2M-20LBX(20 ELEMENTS ON 2M,

1-KLM 220-22LBX(22 ELEMENTS ON 220)

4-KLM 432-30LBX(30 ELEMENTS X4 ON UHF)

4-KLM 1.2-44LBX(44 ELEMENTS X4 ON 1.2GHZ)

1-KLM 17M 3 EL BEAM(3 ELEMENTS ON 17M)

ASKING $1,300 FIRM, PLUS SHIPPING(PREFER PICKUP)FOR ENTIRE PACKAGE

1991. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 15:43:51 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c00cm4$10tj8n$1@ID-150848.news.uni-berlin.de>
Source record: 100562

"Howard" <mensch90249@yahoo.com> wrote in message
news:or4620lr8tlp841pqn2bsjf36iksf4vgcf@4ax.com...
> On 5 Feb 2004 16:28:10 GMT, "Richard" <nearlynews_email@ntlworld.com>
> wrote:
>
> >Eric K. Weber wrote:
> >> Greetings:
> >>
> >> Radio Shack's antennas were manufactured by Winegard.....
> >>
> >> see :
> >> http://www.winegard.com/offair/prostar1000vhffmyagi.htm#6000
> >>
> >> Is this what you had in mind?
> >>
> >> Rgds:
> >> Eric
> >>
> >Was Radioshacks offering a folded dipole arrangement?
> >>
> >>
> Yes, it was just as shown in the Winegard site. Installed one at a
> friends mountain cabin and he went from no FM reception to being able
> to receive 3. Might not sound great, but for a cabin nestled in the
> hills and 75 miles from the nearest broadcaster that isn't too bad.

That's not a folded dipole actually by the looks of it. It's a hertz
dipole. The element on neither dipole folds into a narrow rectangular
shape.
ie

dipole _________X_________

folded dipole ________X_________
|__________________|

1992. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 15:44:53 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023b6bc_2@127.0.0.1>
Source record: 100565

Tdonaly wrote:
> You didn't read the rest of my posting. Current is dQ/dt, the rate of
> flow of charge with time.

Yes, and at a current loop in a standing wave, dQ is positive
for 1/2 cycle and negative for 1/2 cycle. If the forward and
reflected current are in phase at zero degrees, dQ is moving
toward the load. If the forward and reflected current are in
phase at 180 degrees, dQ is moving toward the source. That's
the convention.

You seem to have lost contact with reality when it comes to AC.
Remember the e^jwt term? The standing wave current at a loop
changes sign, and therefore direction, every 1/2 cycle. Current
cannot stand still because dQ would be zero.
--
73, Cecil, W5DXP

1993. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 15:45:08 UTC
From: jim breeeyar <james.breeyear@uvm.edu>
Message-ID: <c00cnl$tj1m$1@swen.emba.uvm.edu>
Source record: 100563
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

James Brennan wrote:
> As a younger Ham (27), who could have gone no-code, I say keep the code.
> It's a right of passage, plus the ability to send/receive means multipliers
> on contest weekends... hi hi.
>
>
> PS what is echolink? That takes all the fun out of a contact...
>
>

What difference does it make if a person who pays taxes to support an organization(FCC), doesnt know a tube from a transistor. Why shouldnt they have equal access to the privilages. Most buy an appliance and start putting it to use. You dont need a license to build. There is so much garbage on the air now it wouldnt matter how clean the signal was. Things mutate with time. I have experienced 49 years of ham radio and 99 percent of what i did didnt require a license. Pressing the mic button did, plus being considerate, respectful, and helpful after pressing the button.

W1HRM

1994. Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 15:46:34 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c00cr0$11b6j0$1@ID-150848.news.uni-berlin.de>
Source record: 100564

If so, whadya use?

Thanks.

Rich.

1995. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 15:52:56 UTC
From: richardharrison@webtv.net
Message-ID: <2672-4023B858-46@storefull-3253.bay.webtv.net>
Source record: 100566

Someone wrote:
"Instantaneous standing wave current moves."

Current is movement. Standing waves stand still.

Forward (incident) waves move forward. Reverse (reflected) waves move rearward. Interference between incident and reflected waves makes a stationary current pattern. It also makes a stationary voltage pattern (VSWR). Voltage and current standing wave patterns are displaced by 90-degrees.

In dealing with a-c (r-f) it is usually convenient to use effective (rms) values because instantaneous values change from instant to instant. The peak instantaneous value is simply: (sq.rt.2)(vrms).

Instantaneous currents move in the same directions and have peak amplitudes in all locations which are related by 1.414 (sq.rt.2) to the rms values.

Best regardfs, Richard Harrison, KB5WZI

1996. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 16:18:52 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <o_OdnfqO8ZbtI77dRVn-uA@comcast.com>
Source record: 100567

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0402052359.5ea1df17@posting.google.com...
> "Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> > >
> > > > 275 feet of garden variety RG8Foam would have a loss of about 1.5 db
at
> > 10
> > > > > MHz. LMR400 about 1db. Do NOT use RG213.
> > >
> > > What's wrong with RG213?
> >
> > It has twice the loss.
> >
> > Tam/WB2TT
>
> I show it or regular rg-8 to have only about .2 db more loss per 100
> ft than foam rg-8. "10 mhz" So 275 ft would be appx 2.1-2.2 or so db
> vs the 1.5 db. I would consider twice the loss to be 3 db loss.
> .6 db should be hardly noticable. MK

My chart shows the following loss at 10 MHz:, per 100 feet

RG213 0.8db
RG8 Foam 0.55 db
9913 0.4 db

LMR400 will be marginally better than 9913. By definitin of db, 1 db is the smallest change that is detected by the human ear. 6db is a factor of 4 in power. By twice the loss I meant twice the number of db.

This may all be moot, because he is going to have a horrendous SWR on at least one of the bands. I would install two resonant radiators, or some kind of decoupling stubs like the Hygain HT.

Tam/WB2TT

1997. Re: FOR SALE- KLM ANTENNA PACKAGE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 16:19:25 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040206111925.15185.00000502@mb-m06.aol.com>
Source record: 100568

Was that donated for the emergency work that your wonderful club does?

More donations anyone?

Smells bad!

1998. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 16:19:53 UTC
From: David Robbins <noone@nowhere.com>
Message-ID: <JJudnWgjOqQoI77dRVn-sw@crocker.com>
Source record: 100419

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c00cr0$11b6j0$1@ID-150848.news.uni-berlin.de...
> If so, whadya use?
>
> Thanks.
>
> Rich.
>
>

no, but i have cut them out of lexan.

1999. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 16:23:07 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c00evf$10r2mi$1@ID-150848.news.uni-berlin.de>
Source record: 100420

Richard wrote:
> If so, whadya use?
>
> Thanks.
>
> Rich.

I was thinking of the dipole center poeices for VHF beams. Centers that hold tube.

2000. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 16:36:09 UTC
From: richardharrison@webtv.net
Message-ID: <12355-4023C279-409@storefull-3256.bay.webtv.net>
Source record: 100421

Cecil, W5DXP wrote:
"But I can demonstrate a 180 degree phase reversal in a helical coil in free space so the capacitance to ground is not the complete answer to what is happening."

Cecil has used the Kraus example of a coil installed as a phase inverter between 1/2-wave segments of a collinear radiator. Kraus` example uses self-resonant coils. Self-capacitance resonates with self-inductance in the Kraus coils.

Inversion is caused by current exchanged between L and C. When the magnetic field collapses, current flows in a loop through capacitance and coil whether the resonating capacitance is external or internal to the coil. The apparent instantaneous current direction is into one end of the coil and out of the other end of the coil. In the next part of the cycle, the instantaneous current direction is reversed when the capacitance is discharging the energy back into the inductance.

Point is, opposite ends of the reactances are 180-degrees out-of-phase at resonance.

Best regards, Richard Harrison, KB5WZI

2001. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 16:54:18 UTC
From: richardharrison@webtv.net
Message-ID: <12355-4023C6BA-416@storefull-3256.bay.webtv.net>
Source record: 100422

Cecil, W5DXP wrote:
"His virtual "center tap to ground" is certainly a valid concept."

Yes. Inertia is a valid idea. A balanced circuit remains balanced unless something is done to unbalance it.

Work with phone lines and you find center-tapped lines are not required for balance, or may make balance worse.

Equal exposure and occasional transposition usually maintain balance.

Best regards, Richard Harrison, KB5WZI

2002. These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 17:05:09 UTC
From: Stef <vee_ee_too_oh_doubleyou_ell@rac.ca>
Message-ID: <2gg7209sfirlumv6j8c62uv4b8j3oseoum@4ax.com>
Source record: 100423

Excuse me for my ignorance of antenna modelling and EZNEC models.
I've been following this lumped coils stuff and bugcatcher loading
coils, as many others, just to learn on the theory.

So far, I've learned on computer models and on Kraus theories.

Please light my candle:

Something I am missing: I'm thinking about how a trap antenna works:
The trap is resonant isn't it? On the frequency of interest: Say 75m.

On a trap dipole, there is a reduction of current flowing on the other
side of the trap ? Because it is a resonnant circuit made of L and C.

If someone would put current meters on each side of the trap, what
would he measure ? A reduction of the current ?

On a Bugcatcher coil, isn't this is what is happening? The coil is
usually tuned after the antenna is installed ? The Bugcatcher coil is
acting ilke a trap ?

The capacitance of the trap is between the car body and the coil,
isn't it?

So would a properly adjusted Bugcatcher coil show a reduction of the
current. Isn't that what we would like to achieve ?

Stef

2003. Re: 40 meter dipole or 88 feet doublet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 17:33:09 UTC
From: KA9CAR <ka9car@a_r_r_l_.net>
Message-ID: <c00j4q$2jd4$1@news1.tribune.com>
Source record: 100424

Check out w4rnl at cebik . com he is a proponent of the 88 foot doublet.

I have a 90 foot doublet, as that is what my trees provided for. An
advantage is that it is a 1/2 wave
on 60 meters so I don't have to adjust my calculations for erp on that band.

In order to tune the 90 footer which is fed by about 50 feet of 450 ohm
line, I had to make a
modification to my Johnson Matchbox. I could have altered the feed line
length, but I chose not to.

I use the doublet on 80 through 10, and it does what the models say it
should at the low hieght
(28 feet) that I have it.

Since I am not worried about directionality, I have considered going to a
132 foot dipole
when I can consider a way to suport it.
KA9CAR

"Dick" <hoogerwaard@wanadoo.nl> wrote in message
news:4022a7d9$0$132$ee9da40f@news.wanadoo.nl...
> Hello,
>
> As my 40 m. rotable dipole (2* 7 m. = 42 feet with coals) was damaged by
the
> storm I am thinking to make something different. The dipole height was at
40
> feet.
>
> I can increase the heigth with a pipe to 60 feet and make a 80m. dipole 2
*
> 20 m. (120 feet) Inv. V. (West/East) and a 40 meter dipole 2 * 10m (60
> feet) or a doublet of 88 feet (South/North)? Both with ladder line.
>
> I mainly work on 80/40 and 30 m. the other bands are nice to have.
>
> The question is should I make the 40 m. dipole or the doublet or renew the
> old rotable dipole? Or any other suggestions..
>
> 73 pa3glf
>
>

2004. Re: UHF channel spacing,avoiding intermod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 17:33:54 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c00j9c$57t$1@newshost.mot.com>
Source record: 100425

IM is the product of at least two signals.

One third order IM will be found at 2*A-B where A and B are two signals.

For example:
X=100 MHz
Y=101MHz

2*100-101 = 200-101 = 99 MHz IM product
2*101-100 = 202-100 = 102 MHz IM product

The original are 1 MHz apart and the products are one MHz either side of
them.

Then there is a three signal third order. I think it is A+B-C.
A=100
B=101
C=102
100+101-102=99
etc.

It just gets worse from there.

Time for a spreadsheet with all the possible formulas, then plug-in the
frequencies.

--
Steve N, K,9;d, c. i My email has no u's.

"Joel Dorfan" <bdorfan@fred.icon.co.za> wrote in message
news:W7mdnX4uYcXM7b7dRVn-sA@is.co.za...
> We have a number of UHF television channels as well as
> VCR's, Satellite decoders etc. all with UHF modulators.
> One needs to carefuly choose which UHF channel to modulate on when setting
> up the VCR, decoder etc. so that they dont interfere with each other or
the
> off air UHF signals.
>
> Some time ago I came across a table that assisted with the choosing of
> various UHF channels (taking into account the off air channels) to avoid
> multiples and adjacent channel interference. I can not seem to find this
> table anymore.
>
> Do you know of an algorithm to use to assist with the above? The UHF
> spectrum for TV video is from 21(471.25 Mhz) to 68 (847.25Mhz) with audio
> being 6Mz higher in frequency.
>

> If for example we have UHF signals on channels 39, 43, 37 and 47 which of
> the remaining channels would be acceptable to use for the modulation of
the
> other devices.
>
> It has been suggested to avoid n-1,n+1,n+5 and n+9 where n is a UHF
channel
> currently in use. Is this correct?
>
> Thanks
>
> Joel
>
> ZS6CBA
>
>

2005. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 17:36:10 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c00jdl$5d3$1@newshost.mot.com>
Source record: 100426

That's why the gamma match is liked. No split dipole. How were you
planning to get the impedance right with a split dipole?
--
Steve N, K,9;d, c. i My email has no u's.

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c00evf$10r2mi$1@ID-150848.news.uni-berlin.de...
> Richard wrote:
> > If so, whadya use?
> >
> > Thanks.
> >
> > Rich.
>
> I was thinking of the dipole center poeices for VHF beams. Centers that
hold
> tube.
>
>

2006. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:04:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023d770$1_2@127.0.0.1>
Source record: 100427

Richard Harrison wrote:

> Someone wrote:
> "Instantaneous standing wave current moves."
>
> Current is movement. Standing waves stand still.
>
> Forward (incident) waves move forward. Reverse (reflected) waves move
> rearward. Interference between incident and reflected waves makes a
> stationary current pattern.

Neither the instantaneous magnitude nor instantaneous phase is constant.
Even at the point where the peak of the current loop occurs, that point
goes through a zero transition twice in every cycle. Yes, instantaneous
standing wave current equals zero all up and down the line twice each cycle.

Consider a lossless open-circuit transmission line with reflections.
At one current loop maximum on the line, the instantaneous current
will be positive, i.e. flowing toward the load. At the next current
loop maximum, the instantaneous current will be negative, i.e. flowing
toward the source. 1/2 cycle later, these values reverse sign and
direction. Assume the following graphic snapshot of a standing wave
is sinusoidal and includes magnitude and phase.

```
_
/ \
/ \
_/__________\_________________
\ /
\ /
\ _ /
```

1/2 cycle later the snapshot will look like this. Anyone who doesn't
believe it has never seen it on an o'scope.

```
_
/ \
/ \
_______________/__________\_
\ /
\ /
\ _ /
```

1/4 cycle later the instantaneous standing wave pattern looks like this:

Here is a dynamic graphic of what a standing wave really looks like.
The black line is the standing wave. Note that neither the magnitude
nor phase is standing still.

http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html

The positive peaks of the current are flowing toward the load because the
phase angles of both the forward and reflected waves are zero, i.e. at
that point, the instantaneous forward current and instantaneous reflected
current are both flowing toward the load. Remember, half the time, the
instantaneous forward current is flowing toward the source and half the
time, the instantaneous reflected current is flowing toward the load.

The negative peak of the current is flowing toward the source because
the phase angles of both the forward and reflected waves are 180 degrees,
i.e. at that point, the instantaneous forward current and instantaneous
reflected current are both flowing toward the source.

1/2 cycle later, the positive peak will have become negative and the
negative peak will have become positive, i.e. their respective directions
of flow have been reversed.

In our enthusiasm for RMS values, we forget what the AC waveforms are
actually doing. RF forward current reverses its direction every 1/2 cycle.
So does RF reflected current.
--
73, Cecil, W5DXP

2007. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:07:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023d800$1_2@127.0.0.1>
Source record: 100428

Tarmo Tammaru wrote:
> This may all be moot, because he is going to have a horrendous SWR on at
> least one of the bands. I would install two resonant radiators, or some kind
> of decoupling stubs like the Hygain HT.

I would use a loading coil on 75m and short it out for 40m.
--
73, Cecil, W5DXP

2008. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:07:52 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023d834$1_2@127.0.0.1>
Source record: 100429

Richard wrote:
> I was thinking of the dipole center poeices for VHF beams. Centers that hold
> tube.

I use fiberglas tubing for such.
--
73, Cecil, W5DXP

2009. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:17:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ddm720pie659ieiolg0egj77fsgtvdnaia@4ax.com>
Source record: 100430

On Fri, 06 Feb 2004 12:04:36 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Neither the instantaneous magnitude nor instantaneous phase is constant.
Uh-huh

2010. messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:25:58 UTC
From: cde@rocketmail.com
Message-ID: <c057333a.0402061025.a119808@posting.google.com>
Source record: 100431
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

I have an 80s model delco am/fm radio. I'd like to attach an external long wire AM antenna, an external FM antenna, and rig something up so I can listen to it with headphones at bedside.

Questions:

1. What do I need to do/build the headphone connection? Can I put something together using the car radio speaker wires?

2. Is it possible to hook up the long wire antenna without getting too complicated? Can I use the antenna plug on the radio in some way, or will I have to get inside the box? I don't know a lot about electronics. I have a soldering iron and have fixed the occasional loose wire on things around the house, but not much more than that.

Or should I just forget it and buy a portable receiver? I mainly want to listen to AM talk at night and a particular FM college station in the next town. I read on several posts about using a car radio because of the AM reception.

I've also thought about buying a used Grundig receiver, in particular the S350. I think having the option of listening to shortwave might be fun. Does this thing put out good audio via headphones?

Thanks.

2011. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:28:06 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040206132806.15185.00000505@mb-m06.aol.com>
Source record: 100432

The difference between the trap and loading coil is this:

Loading coil "shortens" the radiator physical length by replacing the portion of the radiator with inductance. Current on the ends of the coil is more-less as it would be if there was a wire that coil replaces.

Trap typically resonates (by self resonance or with aid of parallel capacitor) on the operating frequency of the portion of radiator between the feedpoint and the the trap. It presents high impedance and practically isolates rest of the radiator beyond the trap. On other frequencies (lower) it becomes loading coil "connecting" the rest of the radiator and at the same time shortening its physical length.

So the coil is a coil. In DC circuits behaves as flat earth believers want it to behave in AC circuits. In RF curcuits, the current distribution depends on the frequency and position of the coil along the radiator.

Check my web page for the start of the argument and some explanations
www.K3BU.us

Yuri, K3BU

2012. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:32:19 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040206133219.15185.00000506@mb-m06.aol.com>
Source record: 100433

>
>That's why the gamma match is liked. No split dipole. How were you
>planning to get the impedance right with a split dipole?
>--
>Steve N, K,9;d, c. i My email has no u's.

Gamma match is the worst of all the matches. Use fiberglass rod or tube, or piece of lexan or plexiglass. Better yet use folded dipole for driven element, increases impedance, efficiency and elegant for connections.

Yuri, K3BU

2013. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:32:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023ddff$1_2@127.0.0.1>
Source record: 100434

Stef wrote:
> On a Bugcatcher coil, isn't this is what is happening? The coil is
> usually tuned after the antenna is installed ? The Bugcatcher coil is
> acting ilke a trap ?

A trap is operated at its resonant frequency. A bugcatcher
coil is supposed to be operated far below its self-resonant
frequency. So the bugcatcher is a lower impedance than a
trap and doesn't impede the current as much as a trap.

A trap operated at 1/2 its resonant frequency is primarily
inductive, like a bugcatcher coil.
--
73, Cecil, W5DXP

2014. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:35:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023dec0$1_2@127.0.0.1>
Source record: 100435

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Neither the instantaneous magnitude nor instantaneous phase is constant.
>
> Uh-huh

See for yourself at:

http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html

The only place the instantaneous magnitude of a standing
wave is constant is at a node where it is equal to zero.
Between nodes, magnitude and phase are continually changing.
--
73, Cecil, W5DXP

2015. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:38:28 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c00n2eape1@newshost.mot.com>
Source record: 100442

Traps are "resonant" loading coils are not.

The theory of a trap is as follows. Take an antenna for one band, say a half wave dipole on 40M. To add another band lower in freq, say 80M you need more length, right? If you add it, then the first band is off, but if you can add the length and remove it every time you are on the higher band you are ok again.
A parallel resonant circuit is a high impedance at its resonant frequency...so put a parallel L & C, resonant at 40M on the end of the 40M dipole and add the length on the other side. Since the L/C is resonant = high Z, it is like an open circuit.
On 80M the L/C is not resonant, so it is a "low" impedance and the added wire is now connected.
Side note: since the Z of the antenna is pretty high at the ends, this L/C better have a really good Q (low loss & therefore a really high Z) so it effectively looks like an open (or nearly so) circuit and the extra wire has minimal effect on the 40M behavior.

Since the trap is an L/C it has does have some Z on 80M (though we really didn't want this) and it will be the combination of the L&C which will be inductive. SO you have a coil at this point on your 80M antenna and will have to adjust the wire length appropriately.
BTW, at this point, (even though this is not what we wanted) this coil happens to have a loading coil effect on the 80M band...see next.

Theory of a loading coil.
When we can't make an antenna long enough to get to the full resonant length (1/2 or 1/4 depending on the style) we have found that putting a coil/inductor (which looks inductive) into the antenna, we can find an inductance which gets the thing resonant and sometimes help the feed point resistance get closer to the desired 50 ohms.

That's the basic difference
--
Steve N, K,9;d, c. i My email has no u's..

"Stef" <vee_ee_too_oh_doubleyou_ell@rac.ca> wrote in message news:2gg7209sfirlumv6j8c62uv4b8j3oseoum@4ax.com...
> Excuse me for my ignorance of antenna modelling and EZNEC models.
> I've been following this lumped coils stuff and bugcatcher loading
> coils, as many others, just to learn on the theory.
>
> So far, I've learned on computer models and on Kraus theories.
>
> Please light my candle:
>

> Something I am missing: I'm thinking about how a trap antenna works:
> The trap is resonant isn't it? On the frequency of interest: Say 75m.
>
> On a trap dipole, there is a reduction of current flowing on the other
> side of the trap ? Because it is a resonnant circuit made of L and C.
>
> If someone would put current meters on each side of the trap, what
> would he measure ? A reduction of the current ?
>
> On a Bugcatcher coil, isn't this is what is happening? The coil is
> usually tuned after the antenna is installed ? The Bugcatcher coil is
> acting ilke a trap ?
>
> The capacitance of the trap is between the car body and the coil,
> isn't it?
>
> So would a properly adjusted Bugcatcher coil show a reduction of the
> current. Isn't that what we would like to achieve ?
>
> Stef
>

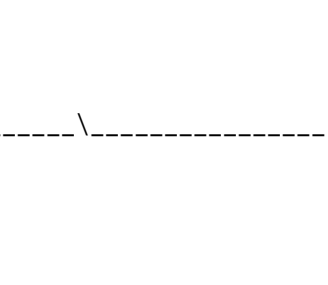
2016. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:43:45 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4023E061.D7E514E0@uci.edu>
Source record: 100443

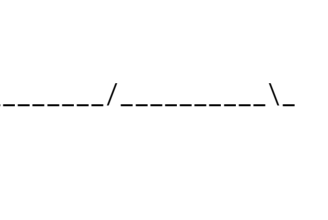
Cecil Moore wrote:
> Consider a lossless open-circuit transmission line with reflections.
> At one current loop maximum on the line, the instantaneous current
> will be positive, i.e. flowing toward the load. At the next current
> loop maximum, the instantaneous current will be negative, i.e. flowing
> toward the source. 1/2 cycle later, these values reverse sign and
> direction.

I think the word you're looking for is *Node*.

> Assume the following graphic snapshot of a standing wave
> is sinusoidal and includes magnitude and phase.



> 1/2 cycle later the snapshot will look like this. Anyone who doesn't
> believe it has never seen it on an o'scope.



Right. But the antenna current plots are of the amplitude term of the
standing wave, shown as a function of position. It's not a time plot.
In the equation E*sin(w), E is the amplitude term. The amplitude term
is a contant. It does not vary with time. It varies with position
along the antenna. The solution to E*sin(w) does vary with time because
it is a function of time. You're confusing the two different
functions. Your answer, typically, is that the math is wrong.

73, Jim AC6XG

\ /
\ /
\ _ /

By the way, here is an I(t) plot where there is a *net* flow of current.

2017. Re: Best antenna to go through triple-pane glass

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:52:58 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <eoRUb.79147$5K1.3882064@twister.southeast.rr.com>
Source record: 100437

The metal coating is good enough to keep my cell phone from working though I
can see the cell tower from my office window about 1/4 mile away
.
"J. Harvey" <VE1BLL@rac.ca> wrote in message
news:8a615218.0402051719.6aeb5480@posting.google.com...
> "LinkTech"
> > Glass only starts acting as a lossy medium when over 8 Ghz.
>
> Depends how far over 8 GHz...
>
> Most common glass is reasonably low loss in the 400 to 700 THz
> (terahertz, 10^12) 'band'.
>
> ;-)
>
> More seriously, 'Low-E' (low emissivity) glass has a thin metal
> coating that might make the glass less transparent at RF. I'm not
> sure about the magnitude of the effect at RF. It certainly works at
> IR.

2018. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:55:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6sm720pbbdmgatpp0gu8f7g8frgl7u4u3r@4ax.com>
Source record: 100438

On Fri, 06 Feb 2004 12:05:09 -0500, Stef
<vee_ee_too_oh_doubleyou_ell@rac.ca> wrote:
>If someone would put current meters on each side of the trap, what
>would he measure ? A reduction of the current ?
>
>On a Bugcatcher coil, isn't this is what is happening? The coil is
>usually tuned after the antenna is installed ? The Bugcatcher coil is
>acting ilke a trap ?

Hi Stef,

Your confusion arises from trying to learn via the internet where ALL answers are available (especially here). To avoid confusion, you need to establish a reference point, something you can trust. With modelers, you can start simple and progress to issues of more complexity. This instruction is inductive, which means (employing our EE term instead of the common English usage of the term) it can boost your understanding, or it can impede it. Thus it pays to find a good traditional source to enlarge the deductive side of understanding (usually a good book or correspondence/conversation).

Philosophy aside, coils as parts of a radiating structure come in two flavors - you have already noted and described them above (if incompletely): traps and loads (which may also be traps).

The controversy over coils that is currently raging (all puns intended) focus on the coil acting as a replacement length to a short antenna. These loads are not traps. Such loads, or loading coils, attempt to create a higher flow of current through them to achieve resonance.

Traps imply through language an element that stops. Traps are parallel resonant elements that are high-Z in series to the adjacent sections of the antenna. They trap (stall, stop, impede) currents from proceeding through them to the other section on the farther side. Hence they are used with antennas that are larger than necessary. This makes them frequency selective, open switches that disconnect excess length from the resonant shorter sections.

So there you have the duality of short-antenna/load and long-antenna/trap.

Then we progress to where the trap may become a load (in the sense of lengthening a too short antenna). In this function, the coil/cap combination is no longer resonant alone, but within the parasitics of the larger structure (which also exhibits capacitance) it becomes

resonant. In this sense, the trap becomes part of a series resonance and is no longer impeding flow.

Hence there is another duality to consider: series-resonance/short and parallel-resonance/long.

The use of an element (coil/capacitor) as trap (parallel resonant) AND load (series resonant) gives you opportunistic designs that allow one tuned element (still speaking of the coil/capacitor) to offer more than two band operation. Traditionally, the trap splits the radiating structure into two band operation; additionally, the sections that are thus physically split may also resonate (with the now incorrectly named trap) in series in a third band. This opportunistic arrangement may also reveal dual band operation of quarterwave sections driving halfwave sections (or other combinations) for single band, gain antennas.

When you get into this kind of sophistication, it often turns on juggling many variables to achieve this legerdemain. You can either approach it cookbook style or through a modeler.

73's
Richard Clark, KB7QHC

2019. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 18:58:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tno72052erna40csjh089lbg1ul39fa53a@4ax.com>
Source record: 100439

On Fri, 06 Feb 2004 06:12:43 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Now please tell us why lumped inductive reactances don't agree with
>wire segment coils, stubs, or reality.
Operator error.

It's like trying to measure Ohms without turning on the meter's
current source. There's a lot of institutionalized ignorance in these
threads.

2020. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:01:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h0p720ljou9837njr895l1n3peuj0cd6in@4ax.com>
Source record: 100440

On Fri, 06 Feb 2004 12:35:47 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>Neither the instantaneous magnitude nor instantaneous phase is constant.
>> Uh-huh
>See for yourself at:
Pathetic

2021. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:05:22 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c00ofj$1106ed$1@ID-150848.news.uni-berlin.de>
Source record: 100441

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4023d834$1_2@127.0.0.1...
> Richard wrote:
> > I was thinking of the dipole center poeices for VHF beams. Centers that
hold
> > tube.
>
> I use fiberglas tubing for such.

You mean you get some fibreglass tubing and insert the element rods into it
from each end? I guess so.

Thing is I'm wanting to make a folded dipole element. Perfectly okay of
course if the ends are clamped rather than bent.

Anyway, I was investigating the casting approach, but it does not seem
common. Lot's of non casting ways. :c)

2022. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:08:11 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4023E61B.BAE2DB4F@uci.edu>
Source record: 100450

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > The amplitude term is a contant. It does not vary with time.
>
> Uh Jim, please look at this web page and tell me again
> that the amplitude is constant and doesn't vary with time.

The amplitude term of an equation, and the one being plotted on an antenna current plot, is a constant for any given position in a standing wave. It's the peak amplitude of the time varying function. It's really not a matter of opinion.

73, Jim AC6XG

2023. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:21:28 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4023E938.291D73AE@uci.edu>
Source record: 100453

Please don't take me for a fool, Cecil. I've done that demo for the
students for 17 years.

At this point you really need to worry less about producing verbal
output, and worry more about being able to properly absorb and utilize
input information. That part seems to be out of order.

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > The amplitude term is a contant. It does not vary with time.
>
> Uh Jim, please look at this web page and tell me again
> that the amplitude is constant and doesn't vary with time.
> The standing wave loop looks like a kid's jump rope. Note
> that the amplitude of the standing wave is zero everywhere
> two times per cycle. How can the amplitude be constant?
> It's RF, for goodness sake.
>
> http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
> --
> 73, Cecil, W5DXP

2024. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:28:37 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <402293eb_3@newsfeed.slurp.net>
Source record: 100444

PVC and ABS fittings are popular; your next best choice is probably epoxy.
It can be cast in forms made of almost any material you want.

Mike KI6PR
El Rancho R.F., Ca

"Richard" wrote
> If so, whadya use?
>
> Thanks.
>
> Rich.
>
>

2025. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:30:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023eb8a$1_2@127.0.0.1>
Source record: 100445

Jim Kelley wrote:
> The amplitude term is a contant. It does not vary with time.

Uh Jim, please look at this web page and tell me again
that the amplitude is constant and doesn't vary with time.
The standing wave loop looks like a kid's jump rope. Note
that the amplitude of the standing wave is zero everywhere
two times per cycle. How can the amplitude be constant?
It's RF, for goodness sake.

http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
--
73, Cecil, W5DXP

2026. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:32:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023ec14$2_2@127.0.0.1>
Source record: 100446

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>Now please tell us why lumped inductive reactances don't agree with
>>wire segment coils, stubs, or reality.
>
> Operator error.

Yep, the error is in the operator's choice of a model
that doesn't match reality.
--
73, Cecil, W5DXP

2027. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:35:05 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023eca5_2@127.0.0.1>
Source record: 100447

Richard wrote:
> Thing is I'm wanting to make a folded dipole element.

Those are easier. Use a strong solid tube for the upper element.
support the lower element from that one with insulators.
--
73, Cecil, W5DXP

2028. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:41:13 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023ee15$1_2@127.0.0.1>
Source record: 100448

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>See for yourself at:
>> http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html

> Pathetic

Discovered why you were confused?
--
73, Cecil, W5DXP

2029. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:42:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rdr720tup92enn1fbbu9burp3n0edov9gk@4ax.com>
Source record: 100449

On Fri, 06 Feb 2004 13:32:40 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Yep, the error is in the operator's choice of a model
>that doesn't match reality.
Institutionalized here for the sake of argument.

2030. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:49:07 UTC
From: richardharrison@webtv.net
Message-ID: <28987-4023EFB3-131@storefull-3258.bay.webtv.net>
Source record: 100452

Cecil, W5DXP wrote:
"Neither the instantaneous magnitude nor instantaneous phase is constant.'

To keep it simple, phase difference between forward and reflected waves is locked. Velocity and distance to any point (P) on a transmission line don`t change. So, pick any reference point you like and the phase difference is simply (beta)(l), where "beta" is the phase shift per unit length, and "l" is the number of units (length) between the selected points.

Whether "magnitude" changes depends on definition. Magnitude sometimes means maximum amplitude of a wave and does not ordinarily change. However, magnitude used as a synonym for instantaneous amplitude varies sinusoidally with time.

At complete nulls, volts or amps, depending on the null site we choose, forward and reverse volts or amps are equal and opposite in both phase and amplitude at every point in the electrical cycle. Their combination is always zero.

At node maxima, volts and amps when we have a complete reflection on a line with negligible loss produce doubles of volts and amps. Maxima of volts are displaced from maxima of amps by 90-degrees.

Best regards, Richard Harrison, KB5WZI

2031. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 19:51:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9rr720h9i0kp9uqdfo807fimjd5390k6an@4ax.com>
Source record: 100451

On Fri, 06 Feb 2004 13:41:13 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>>>Neither the instantaneous magnitude nor instantaneous phase is constant.
>>>> Uh-huh
>>>See for yourself at:
>> Pathetic
>Discovered why you were confused?
even more pathetic

2032. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:11:05 UTC
From: tdonaly@aol.com
Message-ID: <20040206151105.28530.00001554@mb-m01.aol.com>
Source record: 100454

Cecil wrote,
>
>Tdonaly wrote:
>> You didn't read the rest of my posting. Current is dQ/dt, the rate of
>> flow of charge with time.
>
>Yes, and at a current loop in a standing wave, dQ is positive
>for 1/2 cycle and negative for 1/2 cycle. If the forward and
>reflected current are in phase at zero degrees, dQ is moving
>toward the load. If the forward and reflected current are in
>phase at 180 degrees, dQ is moving toward the source. That's
>the convention.
>
>You seem to have lost contact with reality when it comes to AC.
>Remember the e^jwt term? The standing wave current at a loop
>changes sign, and therefore direction, every 1/2 cycle. Current
>cannot stand still because dQ would be zero.
>--
>73, Cecil, W5DXP
>

You're not getting it again, Cecil. The instantaneous current is
changing with time, but it isn't moving anywhere. e^jwt doesn't
have any space information in it.
73,
Tom Donaly, KA6RUH

2033. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:14:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023f5f3_2@127.0.0.1>
Source record: 100455

Richard Harrison wrote:
> To keep it simple, phase difference between forward and reflected waves
> is locked.

Nope, it's not, Richard, as illustrated on this web page:

http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html

The forward phasor and reflected phasor are rotating in
opposite directions. Sometimes they are in phase (loop)
and sometimes they are 180 degrees out of phase (node).
The variable phase difference between the forward wave
and reflected wave is what causes the standing waves.
--
73, Cecil, W5DXP

2034. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:24:47 UTC
From: tdonaly@aol.com
Message-ID: <20040206152447.28530.00001555@mb-m01.aol.com>
Source record: 100456

Cecil wrote,
(snip)
>
>I do not rail against all math models, just the ones that don't match
>reality. I require my math models to give the correct answer.
>
(snip)

That's code. It means "I do not rail against all math models, just the ones that don't agree with me. I require my math models to give the answer I've already made up in my head."
73,
Tom Donaly, KA6RUH

2035. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:35:56 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4023FAAC.C2ED1512@uci.edu>
Source record: 100458

Hey Tom,

Did you hear the cops pulled over Janet Jackson last night?

She had a headlight out.

73, Jim AC6XG

Tdonaly wrote:
>
> Cecil wrote,
> >
> >Tdonaly wrote:
> >> You didn't read the rest of my posting. Current is dQ/dt, the rate of
> >> flow of charge with time.
> >
> >Yes, and at a current loop in a standing wave, dQ is positive
> >for 1/2 cycle and negative for 1/2 cycle. If the forward and
> >reflected current are in phase at zero degrees, dQ is moving
> >toward the load. If the forward and reflected current are in
> >phase at 180 degrees, dQ is moving toward the source. That's
> >the convention.
> >
> >You seem to have lost contact with reality when it comes to AC.
> >Remember the e^jwt term? The standing wave current at a loop
> >changes sign, and therefore direction, every 1/2 cycle. Current
> >cannot stand still because dQ would be zero.
> >--
> >73, Cecil, W5DXP
> >
>
> You're not getting it again, Cecil. The instantaneous current is
> changing with time, but it isn't moving anywhere. e^jwt doesn't
> have any space information in it.
> 73,
> Tom Donaly, KA6RUH

2036. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:39:04 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402061239.587c8c1c@posting.google.com>
Source record: 100457

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
>
> 2. The second antenna is electrically 3/4 wavelength long. This one
> illustrates how the current at the top of the loading coil can be
> greater than the current at the bottom of the loading coil.
>
> http://www.qsl.net/w5dxp/octcoil2.gif
> http://www.qsl.net/w5dxp/octcoil2.ez

Why the 3/4 wave example? This is NOT what I had in mind. What I would like to see, is you take a 8 ft mobile whip for 80m. Start with a center load. Note the current taper. Then place the coil below the midpoint level. Note the current taper. Then place the coil above the midpoint level. Note the current taper.
You should be able to find a configuration that provides max current at the top of the coil, if what you claim is true. I want to see max current at the top of the coil in the SHORT loaded 8ft mobile whip for 80m. Not a funky overly tall 3/4 wave antenna. I'd try it myself, but I only have the demo of eznec and don't have the segment capability. Then if you can see this happen in the model, I'd like to see it confirmed in the real world. If this occurs, then I might start to think what you claim holds some water. I'll reserve further comment until you can try this simple test. MK

2037. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:40:32 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402061240.1859b155@posting.google.com>
Source record: 100459

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
>
> 2. The second antenna is electrically 3/4 wavelength long. This one
> illustrates how the current at the top of the loading coil can be
> greater than the current at the bottom of the loading coil.
>
> http://www.qsl.net/w5dxp/octcoil2.gif
> http://www.qsl.net/w5dxp/octcoil2.ez

Why the 3/4 wave example? This is NOT what I had in mind. What I would like to see, is you take a 8 ft mobile whip for 80m. Start with a center load. Note the current taper. Then place the coil below the midpoint level. Note the current taper. Then place the coil above the midpoint level. Note the current taper.
You should be able to find a configuration that provides max current at the top of the coil, if what you claim is true. I want to see max current at the top of the coil in the SHORT loaded 8ft mobile whip for 80m. Not a funky overly tall 3/4 wave antenna. I'd try it myself, but I only have the demo of eznec and don't have the segment capability. Then if you can see this happen in the model, I'd like to see it confirmed in the real world. If this occurs, then I might start to think what you claim holds some water. I'll reserve further comment until you can try this simple test. MK

2038. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:46:50 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402061246.2dfc45a7@posting.google.com>
Source record: 100460

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:<c00cr0$11b6j0$1@ID-150848.news.uni-berlin.de>...
> If so, whadya use?
>
> Thanks.
>
> Rich.

Can make them out of nearly anything non conductive. I've made many of them from strips of thick printed circuit board material. Peel off the copper on each side, drill a hole on the middle for a so-239. Drill a smaller hole in each end to attach the wires. Bingo. Cheapy insulator. Many people convert long egg insulators to make those. MK

2039. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:51:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4023ff15_6@corp.newsgroups.com>
Source record: 100461

Tdonaly wrote:
> You're not getting it again, Cecil. The instantaneous current is
> changing with time, but it isn't moving anywhere. e^jwt doesn't
> have any space information in it.

Stick a one ohm resistor at a current loop, Jim, and then look at the voltage across it. Surprise!!!! It's a sine wave with a positive part, a zero crossing, a negative part, and another zero crossing. When the voltage is +, the current is flowing through that resistor in one direction. When the voltage is -, the current is flowing through that resistor in the opposite direction. Sorry about that.

To maintain that there's no current flowing through a resistor when there's an AC voltage across the resistor is ridiculous.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2040. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:51:53 UTC
From: Tom Sevart <n2uhc@yahoo.nospam.com>
Message-ID: <c00no7$117c5e$1@ID-52518.news.uni-berlin.de>
Source record: 100436
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

"ellisc" <cde@rocketmail.com> wrote in message
news:c057333a.0402061025.a119808@posting.google.com...
>
> 1. What do I need to do/build the headphone connection? Can I put
> something together using the car radio speaker wires?

You can use the speaker wires, however, the audio used to feed the speakers will be amplified, and will probably overdrive your headphones. You'll need to find a way to match the headphones to the speaker output.

> 2. Is it possible to hook up the long wire antenna without getting too
> complicated? Can I use the antenna plug on the radio in some way, or
> will I have to get inside the box? I don't know a lot about
> electronics. I have a soldering iron and have fixed the occasional
> loose wire on things around the house, but not much more than that.

It should be easy to connect a random wire antenna to the jack of the car radio. Just solder the plug onto the wire antenna. I think they use Motorola type plugs as a standard. However, an antenna that is good for the AM broadcast band won't necessarily be good for the FM broadcast band. However, as you stated below, you just want to listen to an FM station in the next town, so a random wire antenna will probably work OK.

> Or should I just forget it and buy a portable receiver? I mainly want
> to listen to AM talk at night and a particular FM college station in
> the next town. I read on several posts about using a car radio
> because of the AM reception.

Well it all depends on if you're looking to do it easy, or if you want the challenge of making it work. If you're looking for a technical challenge then the car radio will fit the bill. You'll need to match the headphones to the speaker output, attach an antenna, and find a way to power it from 12VDC, either from a battery or power supply. It would be fairly easy to go buy a decent AM/FM radio for DXing (GE Superradio comes to mind).

--
Tom Sevart N2UHC
Frontenac, KS
http://www.geocities.com/n2uhc

2041. Re: 40 meter dipole or 88 feet doublet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:55:40 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402061255.3986c0cb@posting.google.com>
Source record: 100462

"Dick" <hoogerwaard@wanadoo.nl> wrote in message
news:<4022a7d9$0$132$ee9da40f@news.wanadoo.nl>...
> Hello,
>
> As my 40 m. rotable dipole (2* 7 m. = 42 feet with coals) was damaged by the
> storm I am thinking to make something different. The dipole height was at 40
> feet.
>
> I can increase the heigth with a pipe to 60 feet and make a 80m. dipole 2 *
> 20 m. (120 feet) Inv. V. (West/East) and a 40 meter dipole 2 * 10m (60
> feet) or a doublet of 88 feet (South/North)? Both with ladder line.
>
> I mainly work on 80/40 and 30 m. the other bands are nice to have.
>
> The question is should I make the 40 m. dipole or the doublet or renew the
> old rotable dipole? Or any other suggestions..
>
> 73 pa3glf

If it were me, I'd probably parallel 80 and 40 dipoles on the same
feedline using coax. 30 meters I would either use a tuner, or add a
30m dipole also in parallel for that band if you don't want the tuner.
If ladder line fed, it doesn't matter a whole lot, but I'd make the
dipole as close to 80m size as possible. I'd probably use a full size
80m dipole, and feed as two half waves on 40, and whatever on 30. I
prefer coax fed though. More efficient overall being you need no tuner
or matching devices. You also get a normal dipole pattern for each
band you cut a dipole for. MK

2042. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 20:56:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40240051$1_6@corp.newsgroups.com>
Source record: 100463

Tdonaly wrote:
> That's code. It means "I do not rail against all math models, just the
> ones that don't agree with me. I require my math models to give the
> answer I've already made up in my head."

No, I require a math model of a coil that agrees with Roy's and
Tom's measurements. A lumped inductive reactance doesn't do
that. My math models are dictated by reality. Therefore, I
live in the real world and you live in a world created and
dictated by your math models. I prefer my world. You obviously
prefer yours.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2043. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 21:03:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402401fa$1_6@corp.newsgroups.com>
Source record: 100464

Mark Keith wrote:
> Why the 3/4 wave example?

In order to illustrate higher current at the top of the coil than
at the bottom, of course.

> You should be able to find a configuration that provides max current
> at the top of the coil, if what you claim is true.

I just did in the 3/4WL example. One cannot get higher current at
the top of the coil in a 1/4WL electrically long antenna. For a
1/4WL antenna, the maximum current is at the feedpoint and tapers
down to the tip.

> I want to see max current at the top of the coil in the SHORT
> loaded 8ft mobile whip for 80m.

Well, good luck on that one. I think it's impossible. Blood out
of a turnip comes to mind. If you think I ever said or implied
that I could do that, you are as mistaken as you can possibly be.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2044. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 21:17:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m01820t5al59arecoqn6mm200rh2lt0vjq@4ax.com>
Source record: 100465

On Fri, 06 Feb 2004 14:14:46 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Richard Harrison wrote:
>> To keep it simple, phase difference between forward and reflected waves
>> is locked.
>
>Nope, it's not
Uh-huh

2045. Re: FOR SALE- KLM ANTENNA PACKAGE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 21:20:39 UTC
From: Steve GOG <FN30@optonlne.net>
Message-ID: <HyTUb.82941$%93.15439939@news4.srv.hcvlny.cv.net>
Source record: 100466

hahaha

"Yuri Blanarovich" <k3bu@aol.comnoUsama> wrote in message
news:20040206111925.15185.00000502@mb-m06.aol.com...
> Was that donated for the emergency work that your wonderful club does?
>
> More donations anyone?
>
> Smells bad!

2046. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 21:26:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fh1820hiuquaii9bqlr2nlc0vf8pk3uvo3@4ax.com>
Source record: 100467

On Fri, 06 Feb 2004 14:51:17 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>When the voltage is +, the current is flowing through that resistor
>in one direction. When the voltage is -, the current is flowing
>through that resistor in the opposite direction.
which makes the resistor capacitive or inductive?

2047. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 21:35:51 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402408B7.1D454081@uci.edu>
Source record: 100468

Cecil Moore wrote:

> To maintain that there's no current flowing through a resistor when
> there's an AC voltage across the resistor is ridiculous.

You're arguing asynchronously. You're arguments bear no relation to the points being made by your correspondents.

ac6xg

2048. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 21:57:55 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c012kv$4hv2$1@news3.infoave.net>
Source record: 100469

Standing wave is expressed as a ratio, the ratio does not change. The rest
is all bafflegab...

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4023f5f3_2@127.0.0.1...
> Richard Harrison wrote:
> > To keep it simple, phase difference between forward and reflected waves
> > is locked.
>
> Nope, it's not, Richard, as illustrated on this web page:
>
> http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
>
> The forward phasor and reflected phasor are rotating in
> opposite directions. Sometimes they are in phase (loop)
> and sometimes they are 180 degrees out of phase (node).
> The variable phase difference between the forward wave
> and reflected wave is what causes the standing waves.
> --
> 73, Cecil, W5DXP
>

2049. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 22:57:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40241ca2$1_8@corp.newsgroups.com>
Source record: 100470

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>When the voltage is +, the current is flowing through that resistor
>>in one direction. When the voltage is -, the current is flowing
>>through that resistor in the opposite direction.
>
> which makes the resistor capacitive or inductive?

Nope, since the current is in phase with the voltage, it makes the
resistor resistive. That means when you look at the voltage waveform
across a one ohm resistor, you are also looking at the current
waveform.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2050. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 23:00:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40241d69$1_8@corp.newsgroups.com>
Source record: 100471

Jim Kelley wrote:

> Cecil Moore wrote:
>>To maintain that there's no current flowing through a resistor when
>>there's an AC voltage across the resistor is ridiculous.
>
> You're arguing asynchronously. You're arguments bear no relation to the
> points being made by your correspondents.

Nice copout, Jim, really nice. The point is that the standing wave
current indeed does look like a sine wave with magnitude, direction,
and phase, and not as you implied, like an unchanging DC parameter
that just stands there.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2051. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-06 23:29:22 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40242352.D3773BE7@uci.edu>
Source record: 100472

Cecil Moore wrote:
> The point is that the standing wave
> current indeed does look like a sine wave with magnitude, direction,
> and phase, and not as you implied, like an unchanging DC parameter
> that just stands there.

Not a DC parameter. An AC amplitude. Like the I in i(t)=I*sin(w).
You plotted I as a function of position for your antenna standing wave
plots. It's the topic of discussion.

73, Jim AC6XG

2052. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 00:06:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40242cea$1_1@corp.newsgroups.com>
Source record: 100473

Jim Kelley wrote:
> You plotted I as a function of position for your antenna standing wave
> plots. It's the topic of discussion.

That was a snapshot by EZNEC, frozen in time, Jim. Here's what the standing wave current looks like when it is not frozen in time. That's the topic of discussion that everyone seems to want to avoid. Standing waves don't stand still. They probably should have been called "looping waves".

http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2053. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 00:10:12 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <E1WUb.1272$BV1.816@newssvr23.news.prodigy.com>
Source record: 100474
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

"Tom Sevart" <n2uhc@yahoo.nospam.com> wrote in message
news:c00no7$117c5e$1@ID-52518.news.uni-berlin.de...
>
> "ellisc" <cde@rocketmail.com> wrote in message
> news:c057333a.0402061025.a119808@posting.google.com...
> >
> > 1. What do I need to do/build the headphone connection? Can I put
> > something together using the car radio speaker wires?
>
> You can use the speaker wires, however, the audio used to feed the
speakers
> will be amplified, and will probably overdrive your headphones. You'll
need
> to find a way to match the headphones to the speaker output.

This is easily done with a resistor divider... I'd put a load
for the speaker, too. This would look like an 8-ohm 20W
resistor (RatShak sells 'em) across the speaker leads, with
a 500ohm pot across that... your h-phones are tapped
from ground to the center wiper of the pot. Adjust for taste.

--
Steve
KI5YG
.

2054. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 00:10:49 UTC
From: tdonaly@aol.com
Message-ID: <20040206191049.25867.00000779@mb-m05.aol.com>
Source record: 100475

Jim wrote,
>
>
>Cecil Moore wrote:
>> The point is that the standing wave
>> current indeed does look like a sine wave with magnitude, direction,
>> and phase, and not as you implied, like an unchanging DC parameter
>> that just stands there.
>
>Not a DC parameter. An AC amplitude. Like the I in i(t)=I*sin(w).
>You plotted I as a function of position for your antenna standing wave
>plots. It's the topic of discussion.
>
>73, Jim AC6XG
>

Right. It's what EZNEC shows, the same EZNEC Cecil just used to
try to prove his theories.
73,
Tom Donaly, KA6RUH

2055. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 00:33:24 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <40243254.2342@wt.net>
Source record: 100476

Cecil Moore wrote:
>
> Mark Keith wrote:
> > Why the 3/4 wave example?
>
> In order to illustrate higher current at the top of the coil than
> at the bottom, of course.
>
> > You should be able to find a configuration that provides max current
> > at the top of the coil, if what you claim is true.
>
> I just did in the 3/4WL example. One cannot get higher current at
> the top of the coil in a 1/4WL electrically long antenna. For a
> 1/4WL antenna, the maximum current is at the feedpoint and tapers
> down to the tip.

uh huh.....
>
> > I want to see max current at the top of the coil in the SHORT
> > loaded 8ft mobile whip for 80m.
>
> Well, good luck on that one. I think it's impossible. Blood out
> of a turnip comes to mind. If you think I ever said or implied
> that I could do that, you are as mistaken as you can possibly be.

What has all this been about? Bugcatchers and other short loaded mobile antennas. All shorter than 1/4 wave.
Good grief....I rest my case.
My theory? I still think the current across the coil is *fairly* constant.
I'm *still* of the opinion that the *apparent* radical taper across the coil is more due to the presence of the capacitance above the coil. I think Roy described this in more accurate terms, but I have to reread the thread.
I'm *still* of the opinion that if you could measure the current INSIDE the windings of the coil, a couple or three turns in from each end, you would not see near the difference you all do. I do think it's quite normal to have a slight taper, as you would with any other radiator that is shorter than 1/4 wave. So what? But these are just my gut instincts using my built in BS filter. I'm absolutely certain than any error in modeling a short mobile antenna using lumped coils is not worth worrying about. This was the main gist of the argument by Yuri. It was the bottom line. He claimed we were modeling in fairly gross error due to this new found revelation of coil current taper. He promised a new revelation in coil positioning that would turn the mobile antenna world on it's head.

Or at least the hype seemed to imply this. But I'm afraid many beat him to it years ago. As far as phasing coils, yep, you might have an issue there. But it appears you may have been enlightened to a workaround even in that case. Isn't life grand? MK
--
http://web.wt.net/~nm5k

2056. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 00:44:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l1d820lltbmg9l7e5aamtslllumtcdr4jv@4ax.com>
Source record: 100477

On Fri, 06 Feb 2004 16:57:24 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>> which makes the resistor capacitive or inductive?
>
>Nope, since the current is in phase with the voltage
The standing wave current at a loop
changes sign, and therefore direction, every 1/2 cycle.

Uh-huh

2057. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 01:18:06 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <D9SdndkkzpdTobnd4p2dnA@comcast.com>
Source record: 100478

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4023d800$1_2@127.0.0.1...
> Tarmo Tammaru wrote:
> > This may all be moot, because he is going to have a horrendous SWR on at
> > least one of the bands. I would install two resonant radiators, or some
kind
> > of decoupling stubs like the Hygain HT.
>
> I would use a loading coil on 75m and short it out for 40m.
> --
> 73, Cecil, W5DXP
>
That works, or how about a 40m trap to keep it automatic.

Tam/WB2TT

2058. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 01:37:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fdd820dfotehngqr0tcr86u1qld951qfaf@4ax.com>
Source record: 100479

On Fri, 06 Feb 2004 18:33:24 -0600, Mark Keith <nm5k@wt.net> wrote:

>I'm absolutely certain than any error in
>modeling a short mobile antenna using lumped coils is not worth worrying
>about.

That has been shown several times - unless your skin crawls with
differences of 0.5dB

>This was the main gist of the argument by Yuri. It was the bottom
>line. He claimed we were modeling in fairly gross error due to this new
>found revelation of coil current taper.

And that pilot's error was addressed before the soap opera began.

> He promised a new revelation in
>coil positioning that would turn the mobile antenna world on it's head.

Umm yes. The excuse is snow, but given the tapering heat wave
reports, the coils should clear that away in half an hour. Patents
pending!!! - any further discussion constitutes a violation of
Intellectual Property rights subject to suit (40R w/2 pair of pants).

73's
Richard Clark, KB7QHC

2059. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 01:39:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402442a5_3@corp.newsgroups.com>
Source record: 100480

Tdonaly wrote:
> Jim wrote,
>>You plotted I as a function of position for your antenna standing wave
>>plots. It's the topic of discussion.
>>
> Right. It's what EZNEC shows, the same EZNEC Cecil just used to
> try to prove his theories.

Don't you guys understand that EZNEC gives a freeze-frame snapshot of the current referenced to the source which is specified by the user? For instance, when the source is 1 amp at zero degrees, EZNEC shows a freeze-frame snapshot of the current referenced to that source current. Why don't you guys know that? Just because a freeze-frame snapshot stands still doesn't mean the actual current is frozen in time. Good Grief! Try to understand the following web page and then come back and tell us that the standing wave current is not changing.

http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2060. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 01:49:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402444de$1_3@corp.newsgroups.com>
Source record: 100481

Mark Keith wrote:
> I'm *still* of the opinion that if you could measure the current INSIDE
> the windings of the coil, a couple or three turns in from each end, you
> would not see near the difference you all do.

Wes's and my modeling show a smooth current taper through the coil.
Here's the taper predicted by EZNEC through the coil for octcoil1.ez

http://www.qsl.net/w5dxp/taper1.gif

> I do think it's quite normal to have a slight taper, ...

Then you disagree with the guys who say it has no taper. Guess what,
Mark? That puts you on my and Yuri's side of the argument.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2061. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 01:50:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40244551_3@corp.newsgroups.com>
Source record: 100483

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> The standing wave current at a loop
> changes sign, and therefore direction, every 1/2 cycle.
>
> Uh-huh

Is this your Quasimodo imitation?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2062. Re: Balanced feedline for vertical antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 01:52:44 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402445bb$1_3@corp.newsgroups.com>
Source record: 100484

Tarmo Tammaru wrote:
> That works, or how about a 40m trap to keep it automatic.

66 ft tall vertical broken in the middle? OK, I guess ...
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2063. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 01:52:54 UTC
From: Steve GOG <FN30@optonlne.net>
Message-ID: <WxXUb.86$WY4.139134@news4.srv.hcvlny.cv.net>
Source record: 100482

i guess it s 300ohm now instead of 50-75

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c00cm4$10tj8n$1@ID-150848.news.uni-berlin.de...
>
> "Howard" <mensch90249@yahoo.com> wrote in message
> news:or4620lr8tlp841pqn2bsjf36iksf4vgcf@4ax.com...
> > On 5 Feb 2004 16:28:10 GMT, "Richard" <nearlynews_email@ntlworld.com>
> > wrote:
> >
> > >Eric K. Weber wrote:
> > >> Greetings:
> > >>
> > >> Radio Shack's antennas were manufactured by Winegard.....
> > >>
> > >> see :
> > >> http://www.winegard.com/offair/prostar1000vhffmyagi.htm#6000
> > >>
> > >> Is this what you had in mind?
> > >>
> > >> Rgds:
> > >> Eric
> > >
> > >Was Radioshacks offering a folded dipole arrangement?
> > >
> > >
> > Yes, it was just as shown in the Winegard site. Installed one at a
> > friends mountain cabin and he went from no FM reception to being able
> > to receive 3. Might not sound great, but for a cabin nestled in the
> > hills and 75 miles from the nearest broadcaster that isn't too bad.
>
> That's not a folded dipole actually by the looks of it. It's a hertz
> dipole. The element on neither dipole folds into a narrow rectangular
> shape.
> ie
>
> dipole _________X_________
>
> folded dipole ________X_________
> |__________________|
>
>

2064. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 01:58:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qeh820t50agqn1krrro6uggb1mefhsqk9u@4ax.com>
Source record: 100485

On Fri, 06 Feb 2004 19:39:33 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Don't you guys understand that EZNEC gives a freeze-frame snapshot
It keeps the card sharks from dealing off the bottom

2065. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 02:27:50 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <h1j820hc9egp1uvtiga12uqmkutkb5vdrr@4ax.com>
Source record: 100486

On Fri, 6 Feb 2004 15:43:51 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:

>
>"Howard" <mensch90249@yahoo.com> wrote in message
>news:or4620lr8tlp841pqn2bsjf36iksf4vgcf@4ax.com...
>> On 5 Feb 2004 16:28:10 GMT, "Richard" <nearlynews_email@ntlworld.com>
>> wrote:
>>
>> >Eric K. Weber wrote:
>> >> Greetings:
>> >>
>> >> Radio Shack's antennas were manufactured by Winegard.....
>> >>
>> >> see :
>> >> http://www.winegard.com/offair/prostar1000vhffmyagi.htm#6000
>> >>
>> >> Is this what you had in mind?
>> >>
>> >> Rgds:
>> >> Eric
>> >
>> >Was Radioshacks offering a folded dipole arrangement?
>> >
>> >
>> Yes, it was just as shown in the Winegard site. Installed one at a
>> friends mountain cabin and he went from no FM reception to being able
>> to receive 3. Might not sound great, but for a cabin nestled in the
>> hills and 75 miles from the nearest broadcaster that isn't too bad.
>
>That's not a folded dipole actually by the looks of it. It's a hertz
>dipole. The element on neither dipole folds into a narrow rectangular
>shape.
>ie
>
>dipole _________X_________
>
>folded dipole ________X_________
> |__________________|
>
In the picture it's hard to see so I changed my screen resolution and
it looked like it may be folded. Having installed the RatShack model
I can positively say that was a folded dipole. Being that Winegard
makes the antennas RatShack sells I made a leap of faith that the

picture just didn't show that detail well.

In any case, for under $20 it's a good performing omni.

2066. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 02:35:12 UTC
From: tdonaly@aol.com
Message-ID: <20040206213512.13646.00001223@mb-m27.aol.com>
Source record: 100487

Cecil wrote,
>
>Tdonaly wrote:
>> Jim wrote,
>>>You plotted I as a function of position for your antenna standing wave
>>>plots. It's the topic of discussion.
>>>
>> Right. It's what EZNEC shows, the same EZNEC Cecil just used to
>> try to prove his theories.
>
>Don't you guys understand that EZNEC gives a freeze-frame snapshot of
>the current referenced to the source which is specified by the user?
>For instance, when the source is 1 amp at zero degrees, EZNEC shows
>a freeze-frame snapshot of the current referenced to that source
>current. Why don't you guys know that? Just because a freeze-frame
>snapshot stands still doesn't mean the actual current is frozen in
>time. Good Grief! Try to understand the following web page and then
>come back and tell us that the standing wave current is not changing.
>
>http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Yep, and you're changing the subject. How does that wave, that flip flops
like a jump rope, move in and out of your coil?
73,
Tom Donaly, KA6RUH

2067. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 02:35:57 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <1028js3m70lei96@corp.supernews.com>
Source record: 100488

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:6sm720pbbdmgatpp0gu8f7g8frgl7u4u3r@4ax.com...
> On Fri, 06 Feb 2004 12:05:09 -0500, Stef
> <vee_ee_too_oh_doubleyou_ell@rac.ca> wrote:
> >If someone would put current meters on each side of the trap, what
> >would he measure ? A reduction of the current ?
> >
> >On a Bugcatcher coil, isn't this is what is happening? The coil is
> >usually tuned after the antenna is installed ? The Bugcatcher coil is
> >acting ilke a trap ?
>
> Hi Stef,
>
> Your confusion arises from trying to learn via the internet where ALL
> answers are available (especially here). To avoid confusion, you need
> to establish a reference point, something you can trust. With
> modelers, you can start simple and progress to issues of more
> complexity. This instruction is inductive, which means (employing our
> EE term instead of the common English usage of the term) it can boost
> your understanding, or it can impede it. Thus it pays to find a good
> traditional source to enlarge the deductive side of understanding
> (usually a good book or correspondence/conversation).
>
> Philosophy aside, coils as parts of a radiating structure come in two
> flavors - you have already noted and described them above (if
> incompletely): traps and loads (which may also be traps).
>
> The controversy over coils that is currently raging (all puns
> intended) focus on the coil acting as a replacement length to a short
> antenna. These loads are not traps. Such loads, or loading coils,
> attempt to create a higher flow of current through them to achieve
> resonance.
>
> Traps imply through language an element that stops. Traps are
> parallel resonant elements that are high-Z in series to the adjacent
> sections of the antenna. They trap (stall, stop, impede) currents
> from proceeding through them to the other section on the farther side.
> Hence they are used with antennas that are larger than necessary.
> This makes them frequency selective, open switches that disconnect
> excess length from the resonant shorter sections.
>
> So there you have the duality of short-antenna/load and
> long-antenna/trap.
>

> Then we progress to where the trap may become a load (in the sense of
> lengthening a too short antenna). In this function, the coil/cap
> combination is no longer resonant alone, but within the parasitics of
> the larger structure (which also exhibits capacitance) it becomes
> resonant. In this sense, the trap becomes part of a series resonance
> and is no longer impeding flow.
>
> Hence there is another duality to consider: series-resonance/short and
> parallel-resonance/long.
>
> The use of an element (coil/capacitor) as trap (parallel resonant) AND
> load (series resonant) gives you opportunistic designs that allow one
> tuned element (still speaking of the coil/capacitor) to offer more
> than two band operation. Traditionally, the trap splits the radiating
> structure into two band operation; additionally, the sections that are
> thus physically split may also resonate (with the now incorrectly
> named trap) in series in a third band. This opportunistic arrangement
> may also reveal dual band operation of quarterwave sections driving
> halfwave sections (or other combinations) for single band, gain
> antennas.
>
> When you get into this kind of sophistication, it often turns on
> juggling many variables to achieve this legerdemain. You can either
> approach it cookbook style or through a modeler.
>
> 73's
> Richard Clark, KB7QHC

Hello Richard

"Your confusion arises from trying to learn via the internet where ALL answers are available (especially here)."

ROTFLMAO

And to Stef and the Assembled Multitudes:

"You can either approach it cookbook style or through a modeler."

I would add that you can derive a lifetime ......
(I'm near 50 years since my first crystal set.)
......of entertainment by building antennas and comparing them to one another.

73
H.
NQ5H

2068. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 02:59:54 UTC
From: tdonaly@aol.com
Message-ID: <20040206215954.13646.00001229@mb-m27.aol.com>
Source record: 100489

Cecil wrote,
>
>Mark Keith wrote:
>> I'm *still* of the opinion that if you could measure the current INSIDE
>> the windings of the coil, a couple or three turns in from each end, you
>> would not see near the difference you all do.
>
>Wes's and my modeling show a smooth current taper through the coil.
>Here's the taper predicted by EZNEC through the coil for octcoil1.ez
>
>http://www.qsl.net/w5dxp/taper1.gif
>
>> I do think it's quite normal to have a slight taper, ...
>
>Then you disagree with the guys who say it has no taper. Guess what,
>Mark? That puts you on my and Yuri's side of the argument.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

This is an order of magnitude error. In the thirteenth century, the
scholastics would tell their pupils that, since the earth is a ball,
if you build two buildings side by side and use a plumb line to build
each one, the buildings will be farther apart at the top than at the bottom.
Also, if you have a swimming pool with a perfectly flat bottom, the
center will be deeper than the sides because it's closer to the center
of the earth.
No normal people paid any attention to these fellows. The scholastics never
specified
what things meant in terms of real numbers. Cecil says there's a taper but he
doesn't
attempt to say how much. Yuri thinks it's a lot. Cecil seems to agree
with him, but neither fellow has been willing to back his theory with a
$$$$ NEW $$$ [¿### IMPROVED ###¿] mobile antenna. I think any
rational observer would have to conclude that if Yuri and Cecil are right,
they're only right in the 13th cent. scholastic sense, and that their whole
argument doesn't amount to a hill of beans.
73,
Tom Donaly, KA6RUH

2069. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 03:32:56 UTC
From: tommyknocker <tomynokr@uucp.hell>
Message-ID: <1028n3f39rh5qb4@corp.supernews.com>
Source record: 100490
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

ellisc wrote:

> I have an 80s model delco am/fm radio. I'd like to attach an external
> long wire AM antenna, an external FM antenna, and rig something up so
> I can listen to it with headphones at bedside.
>
> Questions:
>
> 1. What do I need to do/build the headphone connection? Can I put
> something together using the car radio speaker wires?
>
> 2. Is it possible to hook up the long wire antenna without getting too
> complicated? Can I use the antenna plug on the radio in some way, or
> will I have to get inside the box? I don't know a lot about
> electronics. I have a soldering iron and have fixed the occasional
> loose wire on things around the house, but not much more than that.
>
> Or should I just forget it and buy a portable receiver? I mainly want
> to listen to AM talk at night and a particular FM college station in
> the next town. I read on several posts about using a car radio
> because of the AM reception.
>
> I've also thought about buying a used Grundig receiver, in particular
> the S350. I think having the option of listening to shortwave might
> be fun. Does this thing put out good audio via headphones?
>
> Thanks.

It would be easier to buy a normal radio. For AM a CCRadio or GE
Superadio 3 would work. The best FM reciever there is is the Tivoli
Audio Henry Kloss Model One, but be prepared to plunk down mucho dinero
for one ($100 last time I checked) and it's not that great on AM. I'd go
with a SR3, or you can try to get an SR2, which some think had better
build quality, but since it's (obviously) an earlier, out of production
model it's hard to find.

2070. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 03:46:51 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040206224651.21982.00000999@mb-m22.aol.com>
Source record: 100491

Tom Donaly, KA6RUH:

>The scholastics never
>specified
>what things meant in terms of real numbers. Cecil says there's a taper but he
>doesn't
>attempt to say how much. Yuri thinks it's a lot. Cecil seems to agree
>with him, but neither fellow has been willing to back his theory with a
>$$$$ NEW $$$ [{### IMPROVED ###}] mobile antenna.

Go to www.K3BU.us and look at the article, measurements and pictures.
http://www.k3bu.us/loadingcoils.htm

Cecil explained what's happening, shined some light on it and the work is in
progress to enlighten the flat earth society.
It is not "our theory", it is reality that was described before us by Kraus,
ON4UN and others.

I used the knowledge to design more efficient mobile antenna for 160.

If you understand the current distribution along the loaded antenna, then you
can maximize it for better efficiency (roughly proportional to the area under
the current curve).

Stand by.

Yuri, K3BU.us

2071. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 03:48:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402460f1$1_2@corp.newsgroups.com>
Source record: 100492

Yuri Blanarovich wrote:
> It is not "our theory", it is reality that was described before us by Kraus,
> ON4UN and others.

And demonstrated through actual measurements made by W7EL and W8JI.
It's hard to believe anyone rejects those measurements.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2072. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 04:08:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4024657c$1_2@corp.newsgroups.com>
Source record: 100494

Tdonaly wrote:
> Yep, and you're changing the subject. How does that wave, that flip flops
> like a jump rope, move in and out of your coil?

Approximately the same way it does on a transmission line. When the forward and reflected current are in phase at zero degrees, both are flowing toward the load. Therefore, their sum (standing wave current positive maximum) is flowing toward the load. When the forward and reflected current are in phase at -180 degrees, both are flowing toward the source. Therefore, their sum (standing wave current negative maximum) is flowing toward the source. (This assumes that the source output is the zero phase reference.) The standing wave reverses phase every 1/2 cycle. From Kraus: "... the phase is constant over a 1/2WL interval, changing abruptly by 180 degrees between intervals."

Install a one ohm resistor at a current loop. Observe the voltage. That voltage is a sine wave, proportional to the current, changing polarity (direction) every 1/2 cycle. RF current simply cannot stand still.

In a wire driven by an AC source, the current flows away from the source for 1/2 cycle and then flows toward the source for 1/2 cycle. In a multi-wavelength RF transmission line, the individual electrons may never make it from the source to the load. Some electrons are just pumped back and forth through the source.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2073. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 04:10:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cvn820p2i0nc1oicfrn9c3ul80veif0mpa@4ax.com>
Source record: 100493

On 07 Feb 2004 03:46:51 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:
>I used the knowledge to design more efficient mobile antenna for 160.

What design did you start with and at what efficiency?

What design did you end up with and at what efficiency?

>If you understand the current distribution along the loaded antenna, then you
>can maximize it for better efficiency (roughly proportional to the area under
>the current curve).

What was the improvement in efficiency?

Hi Yuri,

Marketing claims are cheap and I need only pick up a copy of People
Magazine off the newsstand to read them for free.

I've already played the game through modeling using the exact methods
described at your page. Results were less than 1dB; average
difference ran towards 0.5dB. Since that time, the argument has
bloomed to include coils the size of a cadillac on 3/4 wavelength
structures to no greater efficiency gained. I've also seen this
described in terms of half cycles of instantaneous variable phase
net current moving in opposite directions through a resistor!
Heating and cooling? ;-)

So, what gets responded to, the efficiency or Cecil's goofball claims?

73's
Richard Clark, KB7QHC

2074. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 04:18:26 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402467e2_2@corp.newsgroups.com>
Source record: 100495

Richard Clark wrote:
> So, what gets responded to, the efficiency or Cecil's goofball claims?

Install a one ohm resistor at a current loop. Observe the voltage across it as a sine wave. Are you saying that the voltage across that one ohm resistor is not proportional to the current in magnitude with the same phase? The current is positive for 1/2 cycle and negative for 1/2 cycle. The sign denotes the direction of current travel in the wire. Have you used the DC model on AC circuits for so long that you have forgotten that AC current reverses direction every 1/2 cycle?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2075. Re: Aluminum rod for yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 04:43:43 UTC
From: Hulen Smith <clay1952@cmaaccess.com>
Message-ID: <4024739c$0$32587$2c56edd9@news.cablerocket.com>
Source record: 100497

Hey thanks a ton !!!!
Now if I could just find some insulated element to boom mounts for 1/4 to 1"
!!!

Clay

"butch" <butch@butch.com> wrote in message
news:401FFEFB.AEC72F61@butch.com...
> http://www.mcmaster.com
>
> mcmaster carr big place online to get almost anything.
> they ship fast low cost too.
>
> butch
>
> K6ME wrote:
>
> > Have you tried ACE Hardware?
>

2076. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 05:16:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r2t8209e588rroan4lpsk8057ucvq8sm4c@4ax.com>
Source record: 100498

On Fri, 06 Feb 2004 22:18:26 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Richard Clark wrote:
>> So, what gets responded to, the efficiency or Cecil's goofball claims?
>
Classic example:
>Install a one ohm resistor at a current loop.

2077. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 05:19:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c7t820tae40l9du3of442qia40gosiap8m@4ax.com>
Source record: 100499

On Fri, 06 Feb 2004 22:08:12 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> reflected current ...
>flowing toward the load.
Uh-huh

2078. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 05:20:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d9t820pq5pvlkvn5c2vbd5h6udvm0s713m@4ax.com>
Source record: 100500

On Fri, 06 Feb 2004 22:08:12 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>forward ... current ... flowing toward
>the source.
Uh-huh

2079. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 07:13:45 UTC
From: cde@rocketmail.com
Message-ID: <c057333a.0402062313.65dbf880@posting.google.com>
Source record: 100501
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

tommyknocker <tomynokr@uucp.hell> wrote in message
news:<1028n3f39rh5qb4@corp.supernews.com>...
>
> It would be easier to buy a normal radio. For AM a CCRadio or GE
> Superadio 3 would work. The best FM reciever there is is the Tivoli
> Audio Henry Kloss Model One, but be prepared to plunk down mucho dinero
> for one ($100 last time I checked) and it's not that great on AM. I'd go
> with a SR3, or you can try to get an SR2, which some think had better
> build quality, but since it's (obviously) an earlier, out of production
> model it's hard to find.

The superradio isn't fm stereo, is it? I want stereo for fm listening.

2080. Re: Washing Dishes

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 07:27:53 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <qg4920568pu0jb0gubhc5cbheot52l5o0f@4ax.com>
Source record: 100502

On Thu, 05 Feb 2004 05:43:50 +0000, Book <book16@optusnet.com.au>
wrote:

>I'd considered that, but since the surface was white to begin with, I'd
>guessed the designers had considered it to be an insignificant issue.
>The LNB is going to be cooled to maintain a stable temperature, but
>maybe I need to pull out the spray gun.

I once painted a C band dish with some "Imeron" paint I had left over.
This is what they use on airplanes and pretty much the same as new
cars. It has a finish like a mirror.

The dish looked great, and worked great.
However.... Twice a year the sun moves through the beam of the dish.
I came home one fall day, October I believe, to find that in just the
two or three minutes the sun was in the beam width of the antenna, it
had melted everything except the casting and loop in the feed horn.

Four cans of flat black spray paint later (and a new feed horn) it was
back in service. In the summer and when the sun is close to the beam
width of the dish, the dish itself gets too hot to touch, but the feed
horn stays cool.

<sigh> and it was a really good paint job too. BTW, Imeron is
something like $150 a gallon. It only took a little to do the dish.
That dish now has the most expensive undercoat in the region.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

2081. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 07:44:42 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <gf59209uvlegfnbprle88dedrpc4sogf57@4ax.com>
Source record: 100503

On 07 Feb 2004 02:59:54 GMT, tdonaly@aol.com (Tdonaly) wrote:

[snip]
|
| This is an order of magnitude error. In the thirteenth century, the
|scholastics would tell their pupils that, since the earth is a ball,
|if you build two buildings side by side and use a plumb line to build
|each one, the buildings will be farther apart at the top than at the bottom.
|Also, if you have a swimming pool with a perfectly flat bottom, the
|center will be deeper than the sides because it's closer to the center
|of the earth.

When the Central Arizona Project canal was built they drilled a few
tunnels through mountains. They actually bored the holes with a
slight arch to follow the curvature of the Earth.

On the other hand near Apache Junction, AZ, they project the
subsidence that would occur during the 50 year engineered lifetime and
built the canal with higher banks so that when it sinks the correct
volume of water will still flow. If there is any in 50 years.

Sometimes the nits do count, but not in mobile antennas [g].

2082. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 07:47:28 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <bt5920d1hidfemstr4atvbi79oj6tdud5g@4ax.com>
Source record: 100504

On 07 Feb 2004 03:46:51 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:

[snip]
|
|I used the knowledge to design more efficient mobile antenna for 160.

So now it's 0.51% efficient instead of only 0.49% right? [g]

2083. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 09:23:13 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402070123.64b5ed80@posting.google.com>
Source record: 100505

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
>
> > I do think it's quite normal to have a slight taper, ...
>
> Then you disagree with the guys who say it has no taper. Guess what,
> Mark? That puts you on my and Yuri's side of the argument.

Maybe so, but I place much less importance on this than he does. To me, it means very little, if anything. It surely will not effect how I will design mobile antennas. After all, as Wes pointed out on his web page, the change in radiation resistance is what really improves the efficiency of a short loaded antenna. Not the current distribution in itself. The improved current distibution is just a method used to change the radiation resistance. Taper or no taper, in the usually short 1 ft or so space a coil would occupy, "1/8 the length of a 8 ft whip" the difference either way is not worth worrying about. And the worrysome taper is only in the upper section of the coil, so really it's less than 1/8 of the total antenna length. Most of the plots I see are more bow shaped than a gradual taper due to the peak in current. I'm glad Wes commented on the current peak...This was something I had seen previously in modeling the antennas/coils a few weeks ago, and had wondered about..
If we could do away with the high ground losses, we wouldn't need to elevate the coils, or use hats. That's why often a base load 10-11m vertical on a large car roof is about as good as a center load. Less ground loss due to the better psuedo ground plane under the antenna.
MK

2084. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 09:23:16 UTC
From: richardharrison@webtv.net
Message-ID: <7762-4024AE84-4@storefull-3257.bay.webtv.net>
Source record: 100506

Cecil, W5DXP wrote:
"Nope, it`s not. (phase difference between forward and reflected waves locked in phase)."

At any specific point on a transmission line, the phase angle between the incident and reflected waves is unvarying. That`s what makes standing waves.

At any specific point on a transmission line, the incident wave arrives a fixed number of degrees after its departure from the transmitter.If there is a reflected wave it is delayed by the time it takes to travel the route of the incident wave, plus the delay in traveling the aditional path to the reflection point. Then, either the voltage or the current is going to experience a phase reversal upon reflection. If the load impedance on the transmission line is too high, the current undergoes a phase reversal upon reflection. If the load impedance on the transmission line is too low, the voltage undergoes a phase reversal upon reflection. Then the reflected wave still must take more time to come back from its reflection point to the point "P" on the line where we are considering the phases and magnitudes of the incident and reflected waves.

Terman says on page 95 of his 1955 4th edition:
"However, irrespective of the relative amplitudes of incident and reflected waves, the phase of both voltage and current will advance exactly pi radians (180-degrees) when the distance toward the generator decreases by a half wavelength. Although in the absence of a reflected wave the variation in phase is at a uniform rate within this distance, this is not the case when a reflected wave is present."

Terman is looking at the sums of incident and reflected waves above. Back on page 89 he was considering incident and reflected waves separately when there has has been a reflection from an open circuit. Terman says:

"Consider now how these two waves behave as distance l from the load increases. The incident wave advances in phase beta radians per unit length, while the reflected wave lags correspondingly; at the same time magnitudes do not change greatly when the attenuation constant alpha is small."

Terman is saying that as you look at points closer to the generator you aare looking at the emerging wave sooner in its history, but for the reflected wave the same points show the wave after it has more history paradoxically as you move closer to the generator.

Best regards, Richard Harrison, KB5WZI

2085. Re: randon wire newbie question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 11:01:30 UTC
From: matt wilson <mwilson2@nospam.bigpond.net.au>
Message-ID: <eA3Vb.46277$Wa.39200@news-server.bigpond.net.au>
Source record: 100507

"lethal" <sa.uk@spamtrapvirgin.net> wrote in message
news:1DxUb.48349$OA3.15172774@newsfep2-win.server.ntli.net...
Hi folks,

firstly, i think the Virgin newsgroup/email server is playing up because i've posted this several time to various NG's but none
have shown up. Humbliest appologies if this has show all those times , it's not me messing about -- if they did show, i missed
them and the replies. If not, i hope this one gets through as i could do with the help and advice.

i'm going to put up a random wire for general SWL . I have a kit w/ 25 mtrs of wire / balun / coax feed ready to hang and receive.
Problem is my garden dimensions.

it's 8 mtrs wide , 10 mtrs long and diagonally 12 mtrs across - more or less a square shape.

can anyone help with these suggestions on how to run the wire.

1) i've read you can't fold the wire back on itself. Could i come from one corner of my house , follow the diagonal 12 mtrs
across the garden , support the wire on a pole at the opposite corner , then go back towards the house along the 10 mtr distance ?
Does this constitute folding the wire back on itself ? The angle of the bend at the pole would be approx 45 deg. with the wire in
a V shape yet the wires would be an increasing distance apart up to the house. Would this be a problem ?

2) I can fit in an inverted L but this would only be 16 mtrs of wire not including coax feed. The coax feed would be coming out of
the loft and onto a bracket which would support the balun and straight onto the horizontal length. The vertical bit would then
drop down at the far end . Would this work as all the pics of inverted L's ive seen show the feed starting at the bottom of the
vertical first which then goes up to the horizontal and out

height isn't too much of a problem as i can get it over the guttering level.
This is all for RX not TX

sorry if these are basic, basic questions. I 'll be experimenting later but for know, i just want to get it all up and running as
best as possible.

thanx again as usual,
Simon

If you want "all-round" performance with reasonable rejection of ignition noise, etc, try getting some extra wire and rig up a loop right round your 8x10 meter garden. If you don't want to go that far, try a 10m and 8m legs at right angles, joined by a balun & coax into the house. As always, get the wires as high as you possibly can.

--

****
****
i want to die peacefully in my sleep , same as my grandad - not like his passengers,all screaming and shouting
****
****

2086. Re: UHF channel spacing,avoiding intermod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 11:31:35 UTC
From: Crazy George <mNunsOch@atStglPobAal.nMet>
Message-ID: <4024cdff_3@news1.prserv.net>
Source record: 100508

Joel:

Avoid adjacent channels, your n=1, n-1; and then have no two channels spaced by the same separation. Starting with 39 and 43, have no other pair 4 channels apart. So, you are already in trouble with off air signals (47 - 43 = 4). And so on for the rest of the channels. The n+5 or 9 is for IF beats which will depend on the image rejection of your particular equipment. Difficult to predict exactly without performance data. There has been published an algorithm for most effective use of channels, but you don't have enough channels to need that sophistication.
"Joel Dorfan" <bdorfan@fred.icon.co.za> wrote in message news:W7mdnX4uYcXM7b7dRVn-sA@is.co.za...
> We have a number of UHF television channels as well as
> VCR's, Satellite decoders etc. all with UHF modulators.
> One needs to carefuly choose which UHF channel to modulate on when setting
> up the VCR, decoder etc. so that they dont interfere with each other or the
> off air UHF signals.
>
> Some time ago I came across a table that assisted with the choosing of
> various UHF channels (taking into account the off air channels) to avoid
> multiples and adjacent channel interference. I can not seem to find this
> table anymore.
>
> Do you know of an algorithm to use to assist with the above? The UHF
> spectrum for TV video is from 21(471.25 Mhz) to 68 (847.25Mhz) with audio
> being 6Mz higher in frequency.
>
> If for example we have UHF signals on channels 39, 43, 37 and 47 which of
> the remaining channels would be acceptable to use for the modulation of the
> other devices.
>
> It has been suggested to avoid n-1,n+1,n+5 and n+9 where n is a UHF channel
> currently in use. Is this correct?
>
> Thanks
>
> Joel
>
> ZS6CBA
>
>

2087. Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 14:05:19 UTC
From: VE1BLL@rac.ca
Message-ID: <8a615218.0402070605.3a7a1bf1@posting.google.com>
Source record: 100509

Cecil Moore
> ...Standing waves don't stand still...
> http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html

Good grief ! Semantic nonsense.

Ref. webpage (URL above):
1) Red wave moving (has direction: right).
2) Green wave moving (has another direction: left).
3) Black wave is (by any reasonable definition) NOT MOVING. Neither left nor right. It has no direction. It IS standing still.

YOU WILL NOTE THAT THE WEBPAGE EVEN HAS TWO ARROWS AT THE TOP INDICATING THE DIRECTIONS FOR THE TWO WAVES THAT ARE NOT STANDING STILL - THE RED AND GREEN WAVES. IT DOESN'T HAVE A THIRD ARROW FOR THE BLACK STANDING WAVE.

Of course, the black wave is still 'AC' (a pointlessly obvious point). It might be worth pointing out this 'duh!-obvious' up-and-down motion of the black standing wave to eager RF newbies, but it is not worth making an argument.

Cecil, your point is pure, unadulterated semantic nonsense.

2088. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 14:13:29 UTC
From: Dave <noone@nowhere.com>
Message-ID: <_OidnW5NLtoWb7ndRVn-jQ@crocker.com>
Source record: 100510

"J. Harvey" <VE1BLL@rac.ca> wrote in message
news:8a615218.0402070605.3a7a1bf1@posting.google.com...
> Cecil Moore
> > ...Standing waves don't stand still...
> > http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
>
> Good grief ! Semantic nonsense.
>
> Ref. webpage (URL above):
> 1) Red wave moving (has direction: right).
> 2) Green wave moving (has another direction: left).
> 3) Black wave is (by any reasonable definition) NOT MOVING. Neither
> left nor right. It has no direction. It IS standing still.
>
> YOU WILL NOTE THAT THE WEBPAGE EVEN HAS TWO ARROWS AT THE TOP
> INDICATING THE DIRECTIONS FOR THE TWO WAVES THAT ARE NOT STANDING
> STILL - THE RED AND GREEN WAVES. IT DOESN'T HAVE A THIRD ARROW FOR
> THE BLACK STANDING WAVE.
>
> Of course, the black wave is still 'AC' (a pointlessly obvious point).
> It might be worth pointing out this 'duh!-obvious' up-and-down motion
> of the black standing wave to eager RF newbies, but it is not worth
> making an argument.
>
> Cecil, your point is pure, unadulterated semantic nonsense.

lets have more fun... the 'standing wave' isn't really a wave at all. it doesn't move, it doesn't transfer energy, it really doesn't do anything except sit there.... and part of the time it doesn't even exist, being zero at all points along the line at the same time when the two traveling waves cancel each other. so i propose that the term 'standing wave' is a complete misnomer and in fact is probably an oxymoron and should be abolished, along with the term 'standing wave ratio' and the infamous (at least in the news group) 'swr meter'!

ok, i'll go back to lurking now.

2089. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 14:53:43 UTC
From: Stef <vee_ee_too_oh_doubleyou_ell@rac.ca>
Message-ID: <e2u92055dmrf3qucio6i538k098e0njtt5@4ax.com>
Source record: 100511

>I would add that you can derive a lifetime ......
>(I'm near 50 years since my first crystal set.)
>......of entertainment by building antennas and comparing them to one
>another.

That's my situation !

Thanks to all .

Now I understand the loading coils on a bugcatcher are not resonnant,
they're just loading coils.

I've built traps before for an 80m / 40m dipole. I don't have the
space for it here, but I'll try my hand on an 80m / 40m vertical with
top hat soon.

I've learned from books first, then by following the internet,
discussions about the subjects, I find other ways of looking into
things. It sure is fun to read what others are saying.

2090. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 15:46:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40250942$1_5@corp.newsgroups.com>
Source record: 100512

Richard Clark wrote:
> On Fri, 06 Feb 2004 22:18:26 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>Richard Clark wrote:
>>>So, what gets responded to, the efficiency or Cecil's goofball claims?
>>
> Classic example:
>
>>Install a one ohm resistor at a current loop.

In many circuits, a one ohm resistor is a negligible amount of resistance
and allows one to view the current waveform on an o'scope. If you like,
use a toroidal pickup coil to view the current waveform. The current
waveform will look the same either way.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2091. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 15:55:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40250b38_5@corp.newsgroups.com>
Source record: 100513

Richard Clark wrote:

> On Fri, 06 Feb 2004 22:08:12 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>forward ... current ... flowing toward
>>the source.
>
> Uh-huh

Richard, do you actually believe that 60 Hz AC current flows the same direction all the time into your refrigerator? Wouldn't that make it DC? AC current flows into the refrigerator for 1/2 cycle and flows out of the refrigerator during the next 1/2 cycle. In the AC hot wire, AC current flows toward the generator just as often as it flows toward the refrigerator. Every 8.333 mS, it goes through a zero-crossing and changes direction.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2092. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:11:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40250f17$1_5@corp.newsgroups.com>
Source record: 100514

Mark Keith wrote:

> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
>>Then you disagree with the guys who say it has no taper. Guess what,
>>Mark? That puts you on my and Yuri's side of the argument.
>
> Maybe so, but I place much less importance on this than he does.

You may also place less importance on strawberry ice cream than
he does.

> To me, it means very little, if anything.

Yuri was accused of "Repeating misleading information". Here is
a typical response to one of Yuri's postings:

"You like to call names, insult people, and argue rather than take
the time to learn basic electronics. ... If you look at HOW an inductor
works, the current flowing in one terminal ALWAYS equals the current
flowing out the other terminal."

Note the word "ALWAYS". The ad hominem attacks upon Yuri is probably
one reason he considers the subject to be important.

Someone probably rejected relativity and said, "How much effect does
the orbit of Mercury have on the people of earth?"
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2093. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:20:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40251124$1_5@corp.newsgroups.com>
Source record: 100515

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "Nope, it`s not. (phase difference between forward and reflected waves
> locked in phase)."
>
> At any specific point on a transmission line, the phase angle between
> the incident and reflected waves is unvarying. That`s what makes
> standing waves.

That you were talking about "at any specific point" wasn't apparent
to me from your following assertion. I apologize for misunderstanding.

> To keep it simple, phase difference between forward and reflected waves
> is locked.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2094. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:30:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40251365$1_5@corp.newsgroups.com>
Source record: 100516

J. Harvey wrote:
> 3) Black wave is (by any reasonable definition) NOT MOVING. Neither
> left nor right. It has no direction. It IS standing still.

The Black wave loop is moving up and down indicating that the
phase is changing from positive to negative. The cosine of the
phase angle indicates the direction of current flow. How can
you say it has no direction? And only a blind person would assert
that the current loop is standing still while moving up and down.
Current that stands still is zero current.

A jump rope is a standing wave. Do you also assert that a jump
rope in motion is standing still?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2095. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:36:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402514da_5@corp.newsgroups.com>
Source record: 100517

Dave wrote:
> lets have more fun... the 'standing wave' isn't really a wave at all. it
> doesn't move, it doesn't transfer energy, it really doesn't do anything
> except sit there.... and part of the time it doesn't even exist, being zero
> at all points along the line at the same time when the two traveling waves
> cancel each other. so i propose that the term 'standing wave' is a complete
> misnomer and in fact is probably an oxymoron and should be abolished, along
> with the term 'standing wave ratio' and the infamous (at least in the news
> group) 'swr meter'!

Like a traveling wave, a standing wave changes phases except at the nodes.
In fact, by looking at only one toroidal pickup at one point on the line
(anywhere except a node) you cannot tell if that current wave is standing
or traveling or both.

And the standing wave does transfer energy from the source to the I^2*R
losses in the transmission line. That's why feedlines with high standing
wave ratios are lossier than matched lines.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2096. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:46:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <df5a209o30n1trsmbqj5vvfmlacahmqv1b@4ax.com>
Source record: 100518

On Sat, 07 Feb 2004 09:46:57 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Richard Clark wrote:
>> On Fri, 06 Feb 2004 22:18:26 -0600, Cecil Moore
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>
>>>Richard Clark wrote:
>>>>So, what gets responded to, the efficiency or Cecil's goofball claims?
>>>
>> Classic example:
>>
>>>Install a one ohm resistor at a current loop.
Another Classic goofball example:
>In many circuits

2097. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:48:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ai5a20h5kegpk5onmmp36abfuarg0uv5q7@4ax.com>
Source record: 100369

```
On Sat, 07 Feb 2004 09:55:18 -0600, Cecil Moore wrote:
>Richard Clark wrote:
>> On Fri, 06 Feb 2004 22:08:12 -0600, Cecil Moore
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>forward ... current ... flowing toward
>>>the source.
>>
>> Uh-huh
>
>Richard, do you actually believe
>>>forward ... current ... flowing toward
>>>the source.

Uh-huh
```

2098. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:54:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nq5a20db6mb5v02rr2dgt3gg7ulnj40g8t@4ax.com>
Source record: 100370

On Sat, 07 Feb 2004 10:36:24 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>a standing wave changes phases except at the nodes.
Uh-huh
and travels towards the source when it is a forward traveling wave
and travels towards the load when it is a reverse traveling wave
and moves instantaneously as *net* current
and now changes phases too

2099. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:56:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4025198f_5@corp.newsgroups.com>
Source record: 100373

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>a standing wave changes phases except at the nodes.
>
> and now changes phases too

As illustrated in Kraus' book. Just because the ink on a
page of a book doesn't move, do you think that is proof
that the illustrated signal doesn't move in real time?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2100. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:58:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p06a20pverdg0mt9o2rnck98l2kmu99704@4ax.com>
Source record: 100371

On Sat, 07 Feb 2004 10:30:12 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>phase is changing from positive to negative
Uh-Huh.
What happened to the other 358 degrees? No such angles in the
Cecilian Quasi-Electromagnetics. Phase = +/-
This has been more fun than fractals.

2101. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 16:58:25 UTC
From: Dave <noone@nowhere.com>
Message-ID: <TNCdnaqJ9JGuhLjd4p2dnA@crocker.com>
Source record: 100372

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:402514da_5@corp.newsgroups.com...
> Dave wrote:
> > lets have more fun... the 'standing wave' isn't really a wave at all.
it
> > doesn't move, it doesn't transfer energy, it really doesn't do anything
> > except sit there.... and part of the time it doesn't even exist, being
zero
> > at all points along the line at the same time when the two traveling
waves
> > cancel each other. so i propose that the term 'standing wave' is a
complete
> > misnomer and in fact is probably an oxymoron and should be abolished,
along
> > with the term 'standing wave ratio' and the infamous (at least in the
news
> > group) 'swr meter'!
>
> Like a traveling wave, a standing wave changes phases except at the nodes.
> In fact, by looking at only one toroidal pickup at one point on the line
> (anywhere except a node) you cannot tell if that current wave is standing
> or traveling or both.
>
> And the standing wave does transfer energy from the source to the I^2*R
> losses in the transmission line. That's why feedlines with high standing
> wave ratios are lossier than matched lines.

this is almost too easy... i'll let someone else have it if you want.

2102. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 17:02:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q86a2018m3sfscqgj9ve01vd6mlhmg4fu0@4ax.com>
Source record: 100374

On Sat, 07 Feb 2004 09:53:43 -0500, Stef
<vee_ee_too_oh_doubleyou_ell@rac.ca> wrote:
>Now I understand the loading coils on a bugcatcher are not resonnant,
>they're just loading coils.

Hi Steff,

They ARE resonant, otherwise what's the point in using one?

A short antenna exhibits a principally capacitive reactance that with
the addition of a loading coil resonates the structure leaving only
the radiation resistance behind.

73's
Richard Clark, KB7QHC

2103. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 17:27:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <757a205u7eo30mhkl040btuhbr57nshn5t@4ax.com>
Source record: 100375

On 7 Feb 2004 01:23:13 -0800, nm5k@wt.net (Mark Keith) wrote:

>Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
>>
>> > I do think it's quite normal to have a slight taper, ...
>>
>> Then you disagree with the guys who say it has no taper. Guess what,
>> Mark? That puts you on my and Yuri's side of the argument.
>
>Maybe so, but I place much less importance on this than he does. To
>me, it means very little, if anything. It surely will not effect how I
>will design mobile antennas. After all, as Wes pointed out on his web
>page, the change in radiation resistance is what really improves the
>efficiency of a short loaded antenna. Not the current distribution in
>itself. The improved current distibution is just a method used to
>change the radiation resistance. Taper or no taper, in the usually
>short 1 ft or so space a coil would occupy, "1/8 the length of a 8 ft
>whip" the difference either way is not worth worrying about. And the
>worrysome taper is only in the upper section of the coil, so really
>it's less than 1/8 of the total antenna length. Most of the plots I
>see are more bow shaped than a gradual taper due to the peak in
>current. I'm glad Wes commented on the current peak...This was
>something I had seen previously in modeling the antennas/coils a few
>weeks ago, and had wondered about..
>If we could do away with the high ground losses, we wouldn't need to
>elevate the coils, or use hats. That's why often a base load 10-11m
>vertical on a large car roof is about as good as a center load. Less
>ground loss due to the better psuedo ground plane under the antenna.
>MK

You show that nothing has changed in three months:

>>Hi Mark,
>>
>>I offered an EZNEC analysis that supported (circumspectly) Yuri's
>>position, but he blew it off chasing rainbows. Using the protocol
>>(already published by Yuri) for emulating a solenoid (and not just the
>>contentious one point load), that solenoid is found residing on
>>segments 50 to 59 (spanning 10 inches):
>>>1 W2E1 1 0.00
>>>2 .95623 0.00
>>>3 .9205 0.00
>>>4 .88976 0.00
>>>5 .86122 0.00
>>>6 .83415 0.00

```
>>>7 .80815 0.00
>>>8 .78296 0.00
>>>9 .75843 0.00
>>>10 .73443 0.00
>>>11 .71088 0.00
>>>12 .68771 0.00
>>>13 .66486 -0.01
>>>14 .64229 -0.01
>>>15 .61997 -0.01
>>>16 .59787 -0.01
>>>17 .57596 -0.01
>>>18 .55421 -0.01
>>>19 .53261 -0.02
>>>20 .51115 -0.02
>>>21 .48979 -0.02
>>>22 .46853 -0.02
>>>23 .44736 -0.02
>>>24 .42627 -0.02
>>>25 .40523 -0.02
>>>26 .38424 -0.02
>>>27 .36329 -0.02
>>>28 .34238 -0.03
>>>29 .32148 -0.03
>>>30 .30059 -0.03
>>>31 .27969 -0.03
>>>32 .25878 -0.03
>>>33 .23785 -0.03
>>>34 .21688 -0.04
>>>35 .19585 -0.04
>>>36 .17477 -0.04
>>>37 .1536 -0.05
>>>38 .13234 -0.05
>>>39 .11095 -0.06
>>>40 .08941 -0.07
>>>41 .06769 -0.08
>>>42 .04576 -0.12
>>>43 .02355 -0.21
>>>44 .001 -4.38
>>>45 .02202 -179.8
>>>46 .04579 180.00
>>>47 .0707 180.00
>>>48 .09404 180.00
>>>49 .11529 180.00
>>>50 .13404 180.00
>>>51 .14984 180.00
>>>52 .16235 180.00
>>>53 .17155 180.00
>>>54 .17718 180.00
>>>55 .17057 180.00
>>>56 .15943 180.00
```

```
>>>57 .15069 180.00
>>>58 .1433 180.00
>>>59 .13668 180.00
>>>60 .1306 180.00
>>>61 .12495 180.00
>>>62 .11962 180.00
>>>63 .11457 180.00
>>>64 .10975 180.00
>>>65 .10512 180.00
>>>66 .10066 180.00
>>>67 .09634 180.00
>>>68 .09216 180.00
>>>69 .08809 180.00
>>>70 .08413 180.00
>>>71 .08025 180.00
>>>72 .07646 180.00
>>>73 .07274 180.00
>>>74 .06908 180.00
>>>75 .06549 180.00
>>>76 .06194 180.00
>>>77 .05845 180.00
>>>78 .05499 180.00
>>>79 .05158 180.00
>>>80 .04819 180.00
>>>81 .04484 180.00
>>>82 .0415 180.00
>>>83 .03819 180.00
>>>84 .03488 180.00
>>>85 .03159 180.00
>>>86 .02829 180.00
>>>87 .02499 180.00
>>>88 .02167 180.00
>>>89 .01831 180.00
>>>90 .01491 180.00
>>>91 .01141 180.00
>>>92 .00777 180.00
>>>93 Open .00363 180.00
>>
```

I will not hesitate to point out that the variation in signal strength between the point load and the distributed load varied by one-quarter dB
Which represents ALL the steam in the claim of outrageous losses due to EZNEC's (pilot error) inability to model correctly.

73's
Richard Clark, KB7QHC

2104. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 17:32:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q48a20903rdn0jv1rt8a23s34c301hmm3n@4ax.com>
Source record: 100376

On Sat, 07 Feb 2004 10:56:30 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> Just because the ink on a page of a book doesn't move
Uh-huh. Ink doesn't conduct either.

Definitely more fun than fractal theory

2105. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 17:42:57 UTC
From: tdonaly@aol.com
Message-ID: <20040207124257.27248.00001573@mb-m11.aol.com>
Source record: 100377

```
Cecil wrote,
>
>Richard Clark wrote:
>
>> On Fri, 06 Feb 2004 22:08:12 -0600, Cecil Moore
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>
>>>forward ... current ... flowing toward
>>>the source.
>>
>> Uh-huh
>
>Richard, do you actually believe that 60 Hz AC current flows the same
>direction
>all the time into your refrigerator? Wouldn't that make it DC? AC current
>flows into the refrigerator for 1/2 cycle and flows out of the refrigerator
>during the next 1/2 cycle. In the AC hot wire, AC current flows toward the
>generator just as often as it flows toward the refrigerator. Every 8.333 mS,
>it goes through a zero-crossing and changes direction.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

No, Cecil, it's the charge that moves, not the current. The current is
just the rate at which the charge is moving at a particular time.
In a traveling current wave, the *value* of a current will move along a line
but the charge itself stays put and just oscillates. They sure put some
funny ideas in your head at that engineering school you went to.
73,
Tom Donaly, KA6RUH
```

2106. Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 18:07:05 UTC
From: theplanters95@aol.comnospam
Message-ID: <20040207130705.26379.00001685@mb-m07.aol.com>
Source record: 100378

Hi All,

I am thing of putting up a loop antenna in my backyard. The diminsions are 34' by 50' giving me a total loop of 168 feet. How will this antenna work on 80-10m if feed with 450 ladder line and about 10'-20' off the ground. On 80m I am primarly interested in nvis, and on 20m-10m, dx.

Randy ka4nma

2107. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 18:43:31 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040207134331.26490.00001662@mb-m07.aol.com>
Source record: 100379

>Now I understand the loading coils on a bugcatcher are not resonnant,
>they're just loading coils.

>
>They ARE resonant, otherwise what's the point in using one?
>
>A short antenna exhibits a principally capacitive reactance that with
>the addition of a loading coil resonates the structure leaving only
>the radiation resistance behind.
>
>73's
>Richard Clark, KB7QHC
>

They are NOT resonant at the frequencies of interest - making antenna resonate on that frequency. If they were, they would act as a trap and "disconnect" rest of the whip beyond the coil. And that's the truth, fact, reality. Uh, huh?

Yuri, K3BU.us

2108. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 19:10:25 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <aKaVb.15174$gl2.34@lakeread05>
Source record: 100380
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

"ellisc" <cde@rocketmail.com> wrote in message
news:c057333a.0402061025.a119808@posting.google.com...
> I have an 80s model delco am/fm radio. I'd like to attach an external
> long wire AM antenna, an external FM antenna, and rig something up so
> I can listen to it with headphones at bedside.
>
> Questions:
>
> 1. What do I need to do/build the headphone connection? Can I put
> something together using the car radio speaker wires?
>
> 2. Is it possible to hook up the long wire antenna without getting too
> complicated? Can I use the antenna plug on the radio in some way, or
> will I have to get inside the box? I don't know a lot about
> electronics. I have a soldering iron and have fixed the occasional
> loose wire on things around the house, but not much more than that.
>
> Or should I just forget it and buy a portable receiver? I mainly want
> to listen to AM talk at night and a particular FM college station in
> the next town. I read on several posts about using a car radio
> because of the AM reception.
>
> I've also thought about buying a used Grundig receiver, in particular
> the S350. I think having the option of listening to shortwave might
> be fun. Does this thing put out good audio via headphones?
>
> Thanks.

2109. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 19:12:37 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <fMaVb.15176$gl2.13206@lakeread05>
Source record: 100381
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

"ellisc" <cde@rocketmail.com> wrote in message
news:c057333a.0402061025.a119808@posting.google.com...
> I have an 80s model delco am/fm radio. I'd like to attach an external
> long wire AM antenna, an external FM antenna, and rig something up so
> I can listen to it with headphones at bedside.
>
> Questions:
>

Depending on the frondend design... Early AM car radios included the
antenna feedline capacitance as part of the tuned circuit; and included
a trimmer to fine tune the radio tracking to match the antenna. The
antenna was connected to a very high impedance point of the RF
stage tank.

Later designs used aperiodic frontends, and were less critical. You
might loss ground using a long antenna on the set, depending on its
vintage.

pete

2110. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 19:47:26 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040207144726.26490.00001664@mb-m07.aol.com>
Source record: 100382

K3BU:
>[snip]
>|
>|I used the knowledge to design more efficient mobile antenna for 160.
>

KB7QHC:
>>What design did you start with and at what efficiency?
What design did you end up with and at what efficiency?
What was the improvement in efficiency?<<

N7WS:
>
>So now it's 0.51% efficient instead of only 0.49% right? [g]
>

Nope, more like going from not getting answers to my calls or CQ (S0 or less :-) to getting reports from W6, through P4 to Eu of S6 to S9. Even getting hell from W8JI for wiping out - QRMing the DX window.
You learned heads figure out the efficiency improvement in dBm, uV or dB or S units. It may not jive with your decimal points, but is OK with me.

In the past Cecil showed some results from mobile antenna shootouts, where simple change in position of the loading coil can mean dBs or tens of dBs difference. Might not be reflected in your modeling results, but reality speaks. Those who built and used the stuff know it. Those who calculate it "know better"?

This is getting amusing and eye opening how many flat earth society members are out there. Keep on harping!

KB7QHC:
>>Marketing claims are cheap and I need only pick up a copy of People Magazine off the newsstand to read them for free. <<

I am not marketing nothing (yet), just defending the truth and reality. YMMV

Yuri, K3BU

2111. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 20:07:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2vga20dg2to5o2m60bff3der9mrih4ukuq@4ax.com>
Source record: 100383

On 07 Feb 2004 18:43:31 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich) wrote:

>They are NOT resonant at the frequencies of interest
That is like saying the coil in a tank is not resonant by looking at the coil alone.

What a myopic way of looking at antenna design.

Loading coils are SERIES RESONANT, traps are PARALLEL RESONANT.

The only difference is where the capacitor is. For a loading coil, the capacitor is made up of the reactance of a too short antenna. For a trap, there is a literal capacitor, AND the reactance of the antenna.

If the antenna had no reactance, there would be no need for the loading coil (unless it is your next patent-applied for snow removal device).

73's
Richard Clark, KB7QHC

2112. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 20:13:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <reha201d0fpf64e9j5koojokpum63nkq9u@4ax.com>
Source record: 100384

On 07 Feb 2004 19:47:26 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:

>K3BU:
>>[snip]
>>|
>>|I used the knowledge to design more efficient mobile antenna for 160.
>>
>
>KB7QHC:
>>>What design did you start with and at what efficiency?
>What design did you end up with and at what efficiency?
>What was the improvement in efficiency?<<
>
>N7WS:
>>
>>So now it's 0.51% efficient instead of only 0.49% right? [g]
>>
>
> Might not be reflected in your modeling results, but reality
>speaks.

Hi Yuri,

The long and short of it is that you have absolutely nothing to back
up your assertions of vastly improved efficiency - that's the reality
compared to your testimonials that wouldn't get a vote on American
Idol.

73's
Richard Clark, KB7QHC

2113. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 20:56:12 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040207155612.26403.00001689@mb-m07.aol.com>
Source record: 100385

>
>The long and short of it is that you have absolutely nothing to back
>up your assertions of vastly improved efficiency - that's the reality
>compared to your testimonials that wouldn't get a vote on American
>Idol.
>
>73's
>Richard Clark, KB7QHC
>
>
>

You are right, and you uncovered me. Shocks!
Yep, the real life results mean nothing!
Long live flat earth!

Bring your mobile 160m setup to shootout with mine and let's see your .01 dB difference.
Can we stick to arguments without ridicule? Or is W8JI disease spreading around?

I am grateful for the "wisdom" displayed here, for it illustrates the level of knowledge and experience. I will use it in my article for the benefit of those who will appreciate it. Some of the jabs will end up looking silly. Again, Cecil, my hat off to you for your help and patience.

Yuri da BUm

2114. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 21:06:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0kka20dpt86n0u4lomkamv22b13l8co0a8@4ax.com>
Source record: 100386

On 07 Feb 2004 20:56:12 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:

>Long live flat earth!
...
>Can we stick to arguments without ridicule?

Hi Yuri,

What are the answers to the technical questions:
>>What design did you start with and at what efficiency?
>>What design did you end up with and at what efficiency?
>>What was the improvement in efficiency?

73's
Richard Clark, KB7QHC

2115. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 21:15:57 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040207161557.26403.00001690@mb-m07.aol.com>
Source record: 100387

>
>On 07 Feb 2004 18:43:31 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
>wrote:
>
>>They are NOT resonant at the frequencies of interest
>That is like saying the coil in a tank is not resonant by looking at
>the coil alone.
>

Coil in a tank (with Cap) is not resonant on the same frequencu as "naked"
coil. Big difference where it resonates.

>What a myopic way of looking at antenna design.
>

My what?

>Loading coils are SERIES RESONANT, traps are PARALLEL RESONANT.

Uh, huh! Bulsheet! If the COIL is self resonant (on frequency of interest), it
becomes trap.

>
>The only difference is where the capacitor is. For a loading coil,
>the capacitor is made up of the reactance of a too short antenna. For
>a trap, there is a literal capacitor, AND the reactance of the
>antenna.
>

And there is huge difference how the coil works in a circuit!!!! It could be a
loading coil, or it could be a trap. That's why there are different names for
it.

>If the antenna had no reactance, there would be no need for the
>loading coil (unless it is your next patent-applied for snow removal
>device).

More W8JI rhetoric? Maybe time to grow up?

>
>73's
>Richard Clark, KB7QHC
>

Using your jabs Richard, I would say that you are off the wall, rocker, tree,
you name it. You are displaying lack of proficiency, understanding, basics,
etc.

He was talking about the COIL. Coil without "capacitor" made of antenna or rest of the radiator.
LOADING COIL is a COIL - that's it. Coil will resonate rest of the antenna with its whatever reactance. But coil by itself will resonate somewhere else, depending on its internal capacitance. But definitely not on the resonant frequency of the ANTENNA. If it did then it would be a TRAP. And that is the difference, and that was what was asked.

Loading COIL is not reasonant on the frequency (of interest) that we want antenna to be resonant on (unless using it as helical antenna), otherwise it would act as a TRAP and insulate the remaining portion of the radiator and make the portion of radiator up to the trap (coil) resonant on frequency corresponding to its (electrical) quarter wave length.

If you can not comprehend the difference between the LOADING COIL and TRAP than rest of the discussions here are pointless and you should go back and re-read some books (how do you like that? :-)

Yuri, K3BU.us
Warning! I bite back!

2116. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 21:21:50 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040207162150.26403.00001691@mb-m07.aol.com>
Source record: 100388

>
>What are the answers to the technical questions:
>>>What design did you start with and at what efficiency?

Classical mobile whip with 160m loading coil and whip.

>>>What design did you end up with and at what efficiency?

Improved K3BU design based on knowledge gained from current distribution in a
loading coils.
Details can be obtained against non-disclosure agreement.

>>>What was the improvement in efficiency?

Significant, from S0 to S7 - S9.

>
>73's
>Richard Clark, KB7QHC

73 Yuri, K3BU/m

2117. Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 21:28:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c03l92htv1@sparta.btinternet.com>
Source record: 100389

It's quite obvious the current through a loading coil tapers. As a first approximation it's because the voltage and current along it varies according to a 'cosine' curve as they do along any other sort of continuous transmission line.

V and I on either side of a coil can be opposite in phase as they pass through it.

This occurs when the length of the coil passes through a 1/2-wavelength point. 1/2-wave points can occur at any point along a coil depending on where the coil starts and ends along the antenna. This helps to illustrate the action of 'phase-reversing' coils between adjacent antennas lengths.

What I find so intriguing is what the 'taper proponents' intend to do with the 'taper' data when at last they have it in the form of numbers? Of what use is it? Into what are the numbers inserted? What is the next stage in the proposed modelling process?

Reg, G4FGQ

2118. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 21:43:22 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040207164322.26403.00001693@mb-m07.aol.com>
Source record: 100391

>
>What I find so intriguing is what the 'taper proponents' intend to do with
>the 'taper' data when at last they have it in the form of numbers? Of what
>use is it? Into what are the numbers inserted? What is the next stage in
>the proposed modelling process?
>----
>Reg, G4FGQ
>
>

Efiiciency of the loaded radiator is roughly proportional to the area under the current curve along the radiator.
1. Placement of the loading coil can drastically affect that. (Base loaded vs. Top Hat loaded)
2. When using loaded elements in multielement designs, the current distribution and magnitude along the elements needs to be accounted for optimum design and performance. It affects the inter element coupling, current flow in the segments of the elements and how the modeling programs "see" it. Try loaded 3 el. 80m beam or 4 square. Programs that can do optimization (YO, AO, 4NEC2) would give better results if they can deal with real current distribution closely modeled.
Now it is up to those program authors that neglected proper modeling of the current in the loading coils to iclude this feature and make their softy wares better and reflect reality mo betta.

Yuri, K3BU.us

2119. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 21:44:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <etma201j6vhtgcta9nsjm6mdj1qq6tums1@4ax.com>
Source record: 100390

On 07 Feb 2004 21:21:50 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:
>Details can be obtained against non-disclosure agreement.
Uh-huh. chip offers the same data and opportunity.

2120. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 21:47:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <52na20hmmal2nfu6nt3nk44gbg1fach4ns@4ax.com>
Source record: 100392

On 07 Feb 2004 21:15:57 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:
>>That is like saying the coil in a tank is not resonant by looking at
>>the coil alone.
>>
>Coil in a tank (with Cap) is not resonant on the same frequencu as "naked"
>coil.
Uh-huh And if the Pope were Presbyterian he wouldn't be Agnostic....

2121. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 21:52:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <38na201preh6bbpictmep5nvf39mddumg7@4ax.com>
Source record: 100393

On Sat, 7 Feb 2004 21:28:03 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>What I find so intriguing is what the 'taper proponents' intend to do with
>the 'taper' data when at last they have it in the form of numbers?

That day never seems to arrive. Perhaps eh/cfa testing results are
clogging the queue.

> Of what
>use is it?

Bragging rights of the piss-ant stature.

>Into what are the numbers inserted?

second only to preparation H for that application.

> What is the next stage in
>the proposed modelling process?

creating a new icon to worship.

C'Mon, Reg, you new those answers all along!

2122. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 22:05:42 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040207170542.13026.00001732@mb-m02.aol.com>
Source record: 100394

>Uh-huh And if the Pope were Presbyterian he wouldn't be Agnostic....
>
>
>
>
>
>

Uh-Huh, and you are full of it and displaying conversion to W8JI ridiculing cult followers, good luck and enjoy it. Joining the freaktal team?

73 la - la

2123. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 22:20:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u0pa201u6sesdl4a43mjggrnrt5uiupcea@4ax.com>
Source record: 100395

On 07 Feb 2004 22:05:42 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
wrote:
>Joining the freaktal team?
Do you guys still hang out in robes at airports?

2124. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 22:47:43 UTC
From: KAZeringue <kazeringue@aol.com>
Message-ID: <40256B60.9010608@aol.com>
Source record: 100396

The local craft store has something called "Sculpey", that is a polymer modeling clay.

Its a modeling clay that hardens when heated in a conventional oven to about 275 farenheit.

I've used it with a lot of success to make strain relief's for SMA-to-BNC adapters for my VX-5r handie.

I just never liked the teeny SMA adapters.

I don't know what sort of voltages this stuff might handle, nor how it would weather--but it's easy to work.

example:
http://www.polymerclayexpress.com/sculpey.html

73
kaz

2125. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:26:05 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402574de_2@corp.newsgroups.com>
Source record: 100397

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>phase is changing from positive to negative
>
> Uh-Huh.
> What happened to the other 358 degrees? No such angles in the
> Cecilian Quasi-Electromagnetics. Phase = +/-
> This has been more fun than fractals.

There's no other 358 directions of travel, Richard. There are only two directions in a transmission line. The sign of the cosine of the phase angle determines the direction of travel. Unless you believe in the supernatural, the cos(phase_angle) parameter yields both the real relative magnitude and the real direction of travel. But I don't doubt that you live in an unreal world.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2126. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:27:52 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40257548$1_2@corp.newsgroups.com>
Source record: 100398

Richard Clark wrote:

> On Sat, 07 Feb 2004 09:53:43 -0500, Stef
> <vee_ee_too_oh_doubleyou_ell@rac.ca> wrote:
>
>>Now I understand the loading coils on a bugcatcher are not resonnant,
>>they're just loading coils.
>
> They ARE resonant, otherwise what's the point in using one?

The *antenna* is resonant, Richard, the *coil* is not resonant. If
the coil was resonant, you wouldn't need the rest of the antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2127. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:30:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402575ce$1_2@corp.newsgroups.com>
Source record: 100399

Richard Clark wrote:
>>>I offered an EZNEC analysis that supported (circumspectly) Yuri's
>>>position, but he blew it off chasing rainbows.

Don't know about anybody else, but that posting never appeared on
my news-server. That's the first time I have ever seen it.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2128. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:31:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40257628_2@corp.newsgroups.com>
Source record: 100400

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Just because the ink on a page of a book doesn't move ...
>
> Uh-huh. Ink doesn't conduct either.

Glad you agree. I was beginning to wonder. Did you know there
indeed exists conductive ink?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2129. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:35:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9fta20duhkdi6hmeojs6ltqgkl9g853mea@4ax.com>
Source record: 100401

On Sat, 07 Feb 2004 17:27:52 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>If the coil was resonant, you wouldn't need the rest of the antenna.
Uh-huh, makes a trap an antenna?

2130. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:36:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4025773a$1_2@corp.newsgroups.com>
Source record: 100404

Richard Clark wrote:
> Loading coils are SERIES RESONANT, traps are PARALLEL RESONANT.

BS, Richard. If they were series resonant how could they possibly
supply any inductive reactance which is what is needed to neutralize
the capacitive reactance of the short antenna? A "SERIES RESONANT
loading coil" is purely resistive, by definition.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2131. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:38:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cita20542jqmgdbgc0677qm9enjjdv4n1j@4ax.com>
Source record: 100402

On Sat, 07 Feb 2004 17:26:05 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>There's no other 358 directions
You've offered up/down back/forth.... that's enough?
but then you do offer the
>supernatural

2132. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:38:53 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402577dd$1_2@corp.newsgroups.com>
Source record: 100406

Richard Clark wrote:
> The long and short of it is that you have absolutely nothing to back
> up your assertions of vastly improved efficiency ...

Even it that were true, it wouldn't change the result of the argument
based on W8JI's assertion:

>> If you look at HOW an inductor works, the current flowing in one
>> terminal ALWAYS equals the current flowing out the other terminal.

The only question is: Do you support W8JI's position even though his
own measurements proved otherwise?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2133. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:39:12 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <AGeVb.114429$U%5.593557@attbi_s03>
Source record: 100403

C'mon guys! Self resonance is significantly different from circuit
resonance!!

DD

Richard Clark wrote:

> On 07 Feb 2004 21:15:57 GMT, k3bu@aol.comnoUsama (Yuri Blanarovich)
> wrote:
>
>>>That is like saying the coil in a tank is not resonant by looking at
>>>the coil alone.
>>>
>>
>>Coil in a tank (with Cap) is not resonant on the same frequencu as "naked"
>>coil.
>
> Uh-huh And if the Pope were Presbyterian he wouldn't be Agnostic....

2134. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:39:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0nta20tk0qje30lt6tdvqq11tf1f7n5uar@4ax.com>
Source record: 100405

On Sat, 07 Feb 2004 17:30:06 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>>I offered an EZNEC analysis that supported (circumspectly) Yuri's
>>>>position, but he blew it off chasing rainbows.
>Don't know about anybody else, but that posting never appeared on
>my news-server. That's the first time I have ever seen it.
You mean you actually read this group?

2135. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:43:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402578f4$1_2@corp.newsgroups.com>
Source record: 100407

Yuri Blanarovich wrote:
> Using your jabs Richard, I would say that you are off the wall, rocker, tree,
> you name it. You are displaying lack of proficiency, understanding, basics,
> etc.

Not only that, Yuri, but he is desperately trying to change the subject away
from the original. Have you noticed? That logical diversion, diverting the issue,
is much older than Richard and won't work against people who recognize it.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2136. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:46:44 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402579b5$1_2@corp.newsgroups.com>
Source record: 100408

Reg Edwards wrote:
> What I find so intriguing is what the 'taper proponents' intend to do with
> the 'taper' data when at last they have it in the form of numbers? Of what
> use is it?

As I said on the other newsgroup, Reg, it is useful for discrediting the
assertion of one of r.r.a.a's ex-gurus.

> W8JI wrote:
>> If you look at HOW an inductor works, the current flowing in one terminal
>> ALWAYS equals the current flowing out the other terminal.

"ALWAYS" to me, means zero taper. What does it mean to you, Reg?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2137. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:51:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7dua20taq455h4mtt4koo1qp496ss8nb3m@4ax.com>
Source record: 100409

On Sat, 07 Feb 2004 17:31:36 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Glad you agree. I was beginning to wonder.
You have more problems than wondering.

2138. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:52:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gfua20det36mc925r4g1gv1l1ddnrtdo9a@4ax.com>
Source record: 100410

On Sat, 07 Feb 2004 17:36:09 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>BS, Richard. If they were series resonant how could they possibly
>supply any inductive reactance which is what is needed to neutralize
>the capacitive reactance of the short antenna? A "SERIES RESONANT
>loading coil" is purely resistive, by definition.
and the cow jumped over the moon

2139. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-07 23:53:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <thua2012dd163fsdg1uggs4srac9jk0hia@4ax.com>
Source record: 100411

On Sat, 07 Feb 2004 17:38:53 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Richard Clark wrote:
>> The long and short of it is that you have absolutely nothing to back
>> up your assertions of vastly improved efficiency ...
>
>Even it that were true
Even IF

2140. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:01:35 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40257d30_2@corp.newsgroups.com>
Source record: 100412

Yuri Blanarovich wrote:
> 1. Placement of the loading coil can drastically affect that. (Base loaded vs.
> Top Hat loaded)

BTW, Yuri, you and others may not be aware that my junk box top-loaded mobile antenna equaled the best-of-the-best in one of the antenna shoot-outs. The loading coil was just some cheap 1.75" dia coil stock from my junk box. It wasn't anything like a bugcatcher and it cost virtually nothing.

The bottom section was a 108" conductor curving toward the coil which was ***HORIZONTAL***. Yes, the coil was horizontal as was the top hat to which it was attached. If I had known it was going to do that well, I could have won by making the top hat a little bigger. Here is an ASCII diagram of that antenna:

```
loading coil
- ////////////--Capacitive top hat
/
/
/
/
| Pickup
|
|
|
|
FP
--------GND-----------------------------------------------------
```

So I discovered by accident what is being discussed now. Seems obvious that the coil could be shorted and the top hat disconnected for higher frequencies.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2141. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:07:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40257e7e$1_2@corp.newsgroups.com>
Source record: 100413

Tdonaly wrote:
> Instantaneous current changes with time in a standing wave but it doesn't
> go anywhere.

You dig your logical hole ever deeper, Tom. Current that doesn't move
means that dQ/dt equals zero. Hint: current cannot exist without
movement. Even DC current cannot stand still. AC/RF current is even
worse for your illogical premise.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2142. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:16:43 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <LdfVb.114575$U%5.594411@attbi_s03>
Source record: 100414

Reg Edwards wrote:

SNIP

> What I find so intriguing is what the 'taper proponents' intend to do with
> the 'taper' data when at last they have it in the form of numbers? Of what
> use is it? Into what are the numbers inserted? What is the next stage in
> the proposed modelling process?
> ----
> Reg, G4FGQ
>

IMO: The next stage is designing the coil! A long thin coil [like a Hamstick] requires a longer length of wire than a short 'fat' [note the quotes] coil [like a bug catcher or a screwdriver].

The hamstick has a higher current taper than the screwdriver or bugcatcher.

The resultant integral of the current and length [in degrees] [ampere*degrees] of the resulting antenna is higher with the short fat coil than with a long thin coil. {This assumes the coils are located approximately at the same location.}

Deacon Dave, W1MCE

>

2143. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:18:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4025812b$1_2@corp.newsgroups.com>
Source record: 100415

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>If the coil was resonant, you wouldn't need the rest of the antenna.
>
> Uh-huh, makes a trap an antenna?

A helical trap could be a 1/2WL antenna. But we are better off
with a good ground plane and a 1/4WL helical antenna since it
matches our 50 ohm transmitter better and has less loss. The
ground plane furnishes half of the antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2144. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:22:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4025820d_2@corp.newsgroups.com>
Source record: 100416

Richard Clark wrote:

> On Sat, 07 Feb 2004 17:26:05 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>There's no other 358 directions
>
> You've offered up/down back/forth.... that's enough?
> but then you do offer the supernatural.

I'm sorry, Richard, that you misunderstood. It is you who
offer the supernatural, not me. There are only two directions
of travel in a wire. Positive phase is toward the load, negative
phase is toward the source, by conventional definition. I realize
that you are unconventional.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2145. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:25:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402582b1_2@corp.newsgroups.com>
Source record: 100417

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>BS, Richard. If they were series resonant how could they possibly
>>supply any inductive reactance which is what is needed to neutralize
>>the capacitive reactance of the short antenna? A "SERIES RESONANT
>>loading coil" is purely resistive, by definition.
>
> and the cow jumped over the moon

And Little Richard laughed to see such a sight, or maybe cried.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2146. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:29:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402583bd$1_2@corp.newsgroups.com>
Source record: 100418

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>Richard Clark wrote:
>>>The long and short of it is that you have absolutely nothing to back
>>>up your assertions of vastly improved efficiency ...
>>
>>Even it that were true
>
> Even IF

Shirley, you understand a conditional statement, Richard. The following is a logically true statement: "If the moon was made of green cheese, then a cow could indeed jump over it." May I recommend a good logic textbook? _Logic_, by Ruby.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2147. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:33:53 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <RtfVb.245076$xy6.1304801@attbi_s02>
Source record: 100319

Dave Shrader wrote:

>>
>
> IMO: The next stage is designing the coil! A long thin coil [like a
> Hamstick] requires a longer length of wire than a short 'fat' [note the
> quotes] coil [like a bug catcher or a screwdriver].
>
> The hamstick has a higher current taper than the screwdriver or bugcatcher.
>
> The resultant integral of the current and length [in degrees]
> [ampere*degrees] of the resulting antenna is higher with the short fat
> coil than with a long thin coil. {This assumes the coils are located
> approximately at the same location.}
>
> Deacon Dave, W1MCE

Additional note. 75 inches of wire versus 40 inches of wire at 14 MHz is
only a 1.1 degree difference.

2148. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:37:57 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <FxfVb.248059$na.414020@attbi_s04>
Source record: 100320

Cecil Moore wrote:

SNIP
>
> Shirley, you understand a conditional statement, Richard.

SNIP

Cecil, it's time for bed!! How did Shirley get into this discussion?? :-)

I hope you mean 'surely'??

2149. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 00:45:14 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <uEfVb.114710$U%5.595272@attbi_s03>
Source record: 100321

C'mon Richard. Everybody who works in electronics knows that capacitors are RESONANT, self resonant.

Everybody who works in electronics knows that inductors are RESONANT, self resonant.

At general RF frequencies the self resonances are significantly higher frequencies than the design frequency resonance.

Get a Boonton 'Q' meter and go measure some. Then we can celebrate the funeral of this thread and really get into something interesting like 'Does the charge to mass ratio of an electron remain constant as it approaches relativistic speed?' Pops! Wrong group.

DD

2150. Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 01:02:13 UTC
From: Bill VanAlstyne <w5wvo@cybermesa.net>
Message-ID: <c042otrmp1@reader2.nmix.net>
Source record: 100322

I'm starting a project with some other guys on a 6M beacon which will end up on a mountaintop at around 10K ft in New Mexico. During winter, that means sub-zero temperatures, high winds, and ICE build-up on everything exposed. We would ideally like to put up an omnidirectional horizontally polarized antenna like a loop. Anyone have experience with building (or purchasing) such an antenna that would be sufficiently bulletproof to stand up to a severe weather environment? We could go vertical, of course, but since this beacon will be operating in a CW weak-signal environment under a wide variety of propagation modes (including ground wave, troposcatter, etc., where polarization is more important than it is with ionospheric propagation), we'd like to stay with horizontal if it's physically realistic to do that. What we don't want to have to do, however, is trek up to the mountain top every weekend to put the antenna back up. <g>

Bill / W5WVO
Albuquerque NM

2151. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 01:45:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c044cd$14h$1@sparta.btinternet.com>
Source record: 100323

"Yuri Blanarovich" wrote -
>
> Efiiciency of the loaded radiator is roughly proportional to the area
under the
> current curve along the radiator.
> 1. Placement of the loading coil can drastically affect that. (Base loaded
vs.
> Top Hat loaded)
========================

Typically, shifting the loading coil from the bottom of the antenna to its most efficient location is about 1.5 dB at 7 MHz. Replacing a loading coil at its most efficient location with a large top hat increases efficiency by 14 percent. Hardly drastic!

But Yuri's objective is not to find the optimum location of the coil along the antenna. Every twopenny designer knows that THAT point exists. Especially they who use rules of thumb. And there's nothing wrong with that.

The objective is to assist the coil designer to design coils by telling him HOW to make use of the EXTRA knowledge of current distribution along the antenna.

At present, it seems everybody assumes coil current has a uniform distribution. Nothing wrong with that of course. Especially if everybody makes the SAME assumption.

It is unwise to use "roughly" and "drastically" in the same context. After all, it hasn't yet been discovered in which way the taper should go in order to improve efficiency. (Yes, I know, you can't shift the taper.)

So that how is it proposed to alter the taper. Or to take advantage of it by altering wire diameter, ie., by putting the lowest wire diameter in the places where the smallest current flows. And vice-versa.

IF there is success in improving efficiency by, say, 1 percent, as a result of increasing design and precision engineering costs, plus patenting costs, plus testing and certification costs, plus manufacturing costs, by 5 or 10 times, would customers be prepared to buy it.

How accurate are (A-B) tests results expected to be? Within limits of 0.01%, 0.1%, 1% or 10% ?

You'll be lucky to obtain an accuracy of antenna power measurements within +/- 20%, or within +/- 0.8 dB. This means you would be unable to GUARANTEE to your customers an improvement in performance better (or worse?) than about +/- 1 dB.

But an improvement of such a relatively large amount, by tinkering with coils, I venture to say is impossible. So whatever improvement it is expected to achieve it will be not be possible to honestly demonstrate it. There is the possibility of an antenna actually being worse than measured.

But the $64,000 Question is whether customers will be prepared to pay for another 0.5 dB or less gain, which may or may not exist. It would be like searching for non-existent W.M.D.

On the other hand, it can be confident expected not to measure an antenna gain worse than about 1 percent of what it actually is. But how do you assess the difference between two antennas on the basis of back-to-front ratio over an angle of 360 degrees in the presence of such small differences.

It is suggested the next questions to ask are "What is the expected change in improvement" and "How accurately can the expectation be measured". Economics cannot be avoided.

Reg, G4FGQ

2152. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 02:17:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40259d10_3@corp.newsgroups.com>
Source record: 100324

Dave Shrader wrote:
> Cecil Moore wrote:
>> Shirley, you understand a conditional statement, Richard.

> Cecil, it's time for bed!! How did Shirley get into this discussion?? :-)

From "Airplane": "Surely your jest!" - "No, I am not joking, and don't
call me Shirley!" - line by Leslie Neilson (sp?).
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2153. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 02:21:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c046f4$fi8$1@hercules.btinternet.com>
Source record: 100325

> "ALWAYS" to me, means zero taper. What does it mean to you, Reg?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
==========

There's no such thing as a perfect coil. All coils have stray capacitance and resistance. Consequently, it's exeedingly unlikely the current at one end is equal to the current flowing at the other end. The current flows out of the coil via the stray capacitance to its enironment. So we don't just have I1+I2 - we have I1+I2+I3 to contend with, where I3 is distributed along the length of the coil.

Not that anybody in his right mind would ever wish to know the magnitude of the taper of the current or volts. Seems to be an invention of the denizens of this newsgroup, most of whom seem to have lost theirs.

Now, Cecil, you understand this as well as I do. Cease pulling my leg. So don't expect me to waste any more of my time discussing it. ;o)

Reg, G4FGQ

2154. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 02:25:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40259ee0_3@corp.newsgroups.com>
Source record: 100326

Reg Edwards wrote:
> It is suggested the next questions to ask are "What is the expected change
> in improvement" and "How accurately can the expectation be measured".

Obviously, a sour grapes or sweet lemons situation, depending upon
which side of the argument you are on. Reg, to settle the original
argument, is this statement true?

"If you look at HOW an inductor works, the current flowing in one
terminal ALWAYS equals the current flowing out the other terminal."

A simple "yes" or "no" will settle the original argument and hopefully
end the argument. W8JI's own measurements proved his statement to be
false.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2155. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 02:33:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4025a0dc_3@corp.newsgroups.com>
Source record: 100327

Reg Edwards wrote:
> Now, Cecil, you understand this as well as I do. Cease pulling my leg. So
> don't expect me to waste any more of my time discussing it. ;o)

Yuri didn't agree with the following assertion by an antenna guru:

"If you look at HOW an inductor works, the current flowing in one
terminal ALWAYS equals the current flowing out the other terminal."

Because Yuri didn't agree with that assertion, he was accused of
being lower than the deepest layer of whale sh*t in the deepest
part of the ocean. Can you blame him for reacting?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2156. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 02:43:44 UTC
From: tdonaly@aol.com
Message-ID: <20040207214344.22897.00001710@mb-m04.aol.com>
Source record: 100328

>
>Tdonaly wrote:
>> Instantaneous current changes with time in a standing wave but it doesn't
>> go anywhere.
>
>You dig your logical hole ever deeper, Tom. Current that doesn't move
>means that dQ/dt equals zero. Hint: current cannot exist without
>movement. Even DC current cannot stand still. AC/RF current is even
>worse for your illogical premise.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Nope, you got it wrong again, Cecil. It's the charge that moves, not
the current. In fact all you have in this situation is space, charge, and
time. Current is just the flow rate of charge. I've wondered for a long time
where you got your understanding of transmission lines. Now, it seems,
you don't even have a good grasp of the meaning of the word "current."
I know there's no use arguing with you. Lo Ngow Ok Gow, as the
Hoi San people say (Old cow hard to teach). People who read your
posts should keep in mind your conceptual infirmities, however.
73,
Tom Donaly

2157. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 02:49:33 UTC
From: VE1BLL@rac.ca
Message-ID: <8a615218.0402071849.792ab880@posting.google.com>
Source record: 100329

Cecil Moore wrote:
> J. Harvey wrote:
> > 3) Black wave is (by any reasonable definition)
> > NOT MOVING. Neither left nor right. It has
> > no direction. It IS standing still.
>
> The Black wave loop is moving up and down indicating
> that the phase is changing from positive to negative.
> The cosine of the phase angle indicates the direction
> of current flow. How can you say it has no direction?
> And only a blind person would assert that the current
> loop is standing still while moving up and down.
> Current that stands still is zero current.
>
> A jump rope is a standing wave. Do you also assert
> that a jump rope in motion is standing still?

Cecil - you are hereby found GUILTY of UNFAIR and MISLEADING
'snipping'. Here is the part that I wrote that you very unfairly
snipped.

J. Harvey wrote:
> > Of course, the black wave is still 'AC'
> > (a pointlessly obvious point). It might be worth
> > pointing out this 'duh!-obvious' up-and-down
> > motion of the black standing wave to eager RF
> > newbies, but it is not worth making an argument.

You will note that I totally and completely pre-empted your
highly-predictable attempt at the next duh!-obvious layer of your
feeble semantic nonsense. I even used the exact words,
'...up-and-down...'. It was very unfair of you to snip that out and
then proceed to make the same duh!-obvious, so-called 'point'.

Bad Cop: "Stop, or I'll shoot!"
Suspect: "OK! OK! Don't shoot man; I'm like totally frozen!"
~BANG!~
Good Cop: "Why did you shoot him?"
Bad Cop: "He was 'moving'..."
Good Cop: "But he was standing perfectly still!"
Bad Cop: "Ah, but his heart was still beating..."

Cecil - you're the Bad Cop.
No doughnut for you.
;-)

2158. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 03:01:31 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040207220131.13026.00001747@mb-m02.aol.com>
Source record: 100330

>
>Yuri Blanarovich wrote:
>> 1. Placement of the loading coil can drastically affect that. (Base loaded
>vs.
>> Top Hat loaded)
>
>BTW, Yuri, you and others may not be aware that my junk box top-loaded
>mobile antenna equaled the best-of-the-best in one of the antenna
>shoot-outs. The loading coil was just some cheap 1.75" dia coil stock
>from my junk box. It wasn't anything like a bugcatcher and it cost
>virtually nothing.
>

This is what W9UCW measurerd, that Q of the coil did not contribute
significantly to performance. If wire is reasonable gauge to carry the current
to minimize the ohmic loses, then it was very close with that super-duper Hi-Q
coil.

>The bottom section was a 108" conductor curving toward the coil which was
>***HORIZONTAL***. Yes, the coil was horizontal as was the top hat to which
>it was attached. If I had known it was going to do that well, I could have
>won by making the top hat a little bigger. Here is an ASCII diagram of that
>antenna:
> loading coil
> - ////////////--Capacitive top hat
> /
> /
> /
> /
> | Pickup
> |
> |
> |
> |
> FP
>--------GND----------
>So I discovered by accident what is being discussed now. Seems obvious that
>the coil could be shorted and the top hat disconnected for higher
>frequencies.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

That is close to my "secret" K3BU 160m antenna that runs circles around the "classic" whip. I used 80m regular Hustler coil. From the point where set screw tightens the whip I run about 13 ft of wire, top loading to small mast on the front bumper. By sliding that end up and down I managed to tune the antenna within the bottom end of 160. It also gave me some horizontal component for the NVIS.
The net result was that even with "lousy" Hustler 80m coil, I managed to increase the high current carrying portion of radiator, coil didn't have to be that large, top loading wire also served as a guy. I didn't use real hat, just wire. Mast is mounted on the fender of 72 Buick LeSabre.
The flat earth society will argue that it can be only 0.1 dB improvement, but I saw on average about 7 S-units boost. K5NA once travelled with regular 160m mobile during the contest, didn't make single QSO. With my ugly thing I worked stations from W6 through South America to Eu.
Another egg in the face Richard and his ridiculing.

73 Yuri

2159. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 03:14:03 UTC
From: k3bu@aol.comnoUsama
Message-ID: <20040207221403.13026.00001749@mb-m02.aol.com>
Source record: 100331

>
>Not only that, Yuri, but he is desperately trying to change the subject away
>from the original. Have you noticed? That logical diversion, diverting the
>issue,
>is much older than Richard and won't work against people who recognize it.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Yep, it's getting pathetic, looks like graduates from W8JI "university". Time to move on to some serious work with those who see the light. I want to explore inductopacitive loads. WX is warming up, the white sh1t is melting, I will get out soon, and do some more 'sperimenting.
We are trying to have mobile ant shootout here in the spring.

Yuri, K3BU.us

2160. Re: Virtual ground monopole HF Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 03:29:12 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <c2iVb.248802$na.414796@attbi_s04>
Source record: 100332
Cross-posted to: sci.physics.electromag,rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Reg I can't resist a follow up on your posting just at the point I was going
to give up messing with this newsgroup.
Anyway, I have to say I fully agree with what you have said. Fortunately my
antenna designs meets all the requirements.. I am anticipating it to be
published sometime this year. Why I am replying to your posting is to say I
am not wasting much time on this taper thing as I have better things to do
with my time.At the end of the year ..
I do have one problem however Reg, tho you won't see it that way, the
design is not in a book, which is going to be a real road block on this
group. So hang around for a few months Reg as many on this group cannot
think for them selves and thus will need some one like you to explain
things. Hopefully you will not have to delve into problems like current
taper The idea is dead over here that books should ONLY lead you so far
and then you procede into subjects on your own to new frontiers and not to
rest on your laurels once you get a degree and learn to be a parrot..
Looking forward to coming home for a short visit soon
but with the $ going down I may have to bring sandwiches
Cheers and beers mate
Art Unwin KB9MZ....XG

"Jack Painter" <223bthp@cox.net> wrote in message
news:C9qNb.9739$ct4.2104@lakeread05...
> "Radiondistics" <francesco.errante@tiscali.it> wrote in message
> news:c15f167.0401141801.7ecde81c@posting.google.com...
>
> > http://www.Radiondistics.com
>
> I'm sending a screenshot of that disgusting panty-waisted liberal garbage
on
> their website to friends and contacts in the various armed services here
in
> Norfolk, Virginia, in the hopes that this company never sells anything to
> the U.S. Gov't or NATO.
>
> Jack Painter
>
>

2161. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 04:06:58 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c04ckv$66ga$1@news3.infoave.net>
Source record: 100333

1.There is no standing wave, it is an abstraction. Look at the formula for reflection coefficient, the only terms are Zf and Zr.

2. The standing wave does not cause IR losses, the losses are because of the increase of reflected current. We measure that increased reflected current and from it create a ratio to the forward current and describe it as a standing wave ratio.

3. To argue which way a ratio goes is pointless.

4. The jump rope example shows the forward and reflected wave only. One may observe the constructive and destructive resultant waves. One can NOT see a standing wave, whereas one may be computed from the observations.

5. Set the reflected current equal to the forward current and the field changes from electrical to magnetic twice a second. A pure observable non moving standing wave, some call that resonance.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:40257e7e$1_2@corp.newsgroups.com...
> Tdonaly wrote:
> > Instantaneous current changes with time in a standing wave but it doesn't
> > go anywhere.
>
> You dig your logical hole ever deeper, Tom. Current that doesn't move
> means that dQ/dt equals zero. Hint: current cannot exist without
> movement. Even DC current cannot stand still. AC/RF current is even
> worse for your illogical premise.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2162. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 04:16:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4025b8dd$1_2@corp.newsgroups.com>
Source record: 100334

Tdonaly wrote:
> Nope, you got it wrong again, Cecil. It's the charge that moves, not
> the current.

Uh, Tom, a voltage causes a charge to move and the result is zero
current? Do you know how many laws of physics that assertion violates?

There exist two currents of one amp at zero degrees. Their sum is 2 amps
at zero degrees but you assert that even though the component currents
are moving in the same direction, the sum of the two currents is standing
still? Care to provide some proof for that ridiculous assertion?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2163. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 04:25:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4025bb01$1_2@corp.newsgroups.com>
Source record: 100335

J. Harvey wrote:
> Cecil - you are hereby found GUILTY of UNFAIR and MISLEADING
> 'snipping'. Here is the part that I wrote that you very unfairly
> snipped.

Sorry, when I encounter a false statement, I don't even read the
rest of posting. Maybe you should be more careful?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2164. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 04:35:03 UTC
From: Art Unwin KB9MZ <aunwin@insightbb.com>
Message-ID: <X%iVb.202806$nt4.975431@attbi_s51>
Source record: 100336

The mobile contacts are impressive,Was the European contacts audio or C.W.,
100 watts? Was you on a beach or something?

Art

"Yuri Blanarovich" <k3bu@aol.comnoUsama> wrote in message
news:20040207220131.13026.00001747@mb-m02.aol.com...
> >
> >Yuri Blanarovich wrote:
> >> 1. Placement of the loading coil can drastically affect that. (Base
loaded
> >vs.
> >> Top Hat loaded)
> >
> >BTW, Yuri, you and others may not be aware that my junk box top-loaded
> >mobile antenna equaled the best-of-the-best in one of the antenna
> >shoot-outs. The loading coil was just some cheap 1.75" dia coil stock
> >from my junk box. It wasn't anything like a bugcatcher and it cost
> >virtually nothing.
> >
>
> This is what W9UCW measurerd, that Q of the coil did not contribute
> significantly to performance. If wire is reasonable gauge to carry the
current
> to minimize the ohmic loses, then it was very close with that super-duper
Hi-Q
> coil.
>
> >The bottom section was a 108" conductor curving toward the coil which was
> >***HORIZONTAL***. Yes, the coil was horizontal as was the top hat to
which
> >it was attached. If I had known it was going to do that well, I could
have
> >won by making the top hat a little bigger. Here is an ASCII diagram of
that
> >antenna:
> > loading coil
> > - ////////////--Capacitive top hat
> > /
> > /
> > /
> > /
> > | Pickup
> > |
> > |

> > |
> > |
> > FP
> >--------GND----------
> >So I discovered by accident what is being discussed now. Seems obvious
that
> >the coil could be shorted and the top hat disconnected for higher
> >frequencies.
> >--
> >73, Cecil http://www.qsl.net/w5dxp
> >
> >
>
> That is close to my "secret" K3BU 160m antenna that runs circles around
the
> "classic" whip. I used 80m regular Hustler coil. From the point where set
screw
> tightens the whip I run about 13 ft of wire, top loading to small mast on
the
> front bumper. By sliding that end up and down I managed to tune the
antenna
> within the bottom end of 160. It also gave me some horizontal component
for the
> NVIS.
> The net result was that even with "lousy" Hustler 80m coil, I managed to
> increase the high current carrying portion of radiator, coil didn't have
to be
> that large, top loading wire also served as a guy. I didn't use real hat,
just
> wire. Mast is mounted on the fender of 72 Buick LeSabre.
> The flat earth society will argue that it can be only 0.1 dB improvement,
but I
> saw on average about 7 S-units boost. K5NA once travelled with regular
160m
> mobile during the contest, didn't make single QSO. With my ugly thing I
worked
> stations from W6 through South America to Eu.
> Another egg in the face Richard and his ridiculing.
>
> 73 Yuri
>

2165. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 04:57:13 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040207235713.13026.00001751@mb-m02.aol.com>
Source record: 100337

>
>The mobile contacts are impressive,Was the European contacts audio or C.W.,
>100 watts? Was you on a beach or something?
>
>Art

They was SSB and CW, some was 100W some was 500W, some was from my driveway, some was while driving to VE1ZZ place. When close to the ocean or going over the bridges the signals would jump 10 - 15 dB. Some would say it can't be, but I say it woz!

73 Yuri, K3BU/m, VE3BMV/m, VE1BY/m
VE3BMV/W4/mm - car submerged in the salt water canal in Miami beach

2166. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 04:58:33 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040207235833.13026.00001752@mb-m02.aol.com>
Source record: 100338

>
>Sorry, when I encounter a false statement, I don't even read the
>rest of posting. Maybe you should be more careful?
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

yep, with hostile audience like this you HAVE to be. I learned that and had to apologize :-)

Yuri

2167. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 05:00:03 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040208000003.13026.00001753@mb-m02.aol.com>
Source record: 100339

Amen Fred!

2168. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 05:04:50 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402072104.a00ab76@posting.google.com>
Source record: 100340

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40251365$1_5@corp.newsgroups.com>...
> J. Harvey wrote:
> > 3) Black wave is (by any reasonable definition) NOT MOVING. Neither
> > left nor right. It has no direction. It IS standing still.
>
> The Black wave loop is moving up and down indicating that the
> phase is changing from positive to negative. The cosine of the
> phase angle indicates the direction of current flow. How can
> you say it has no direction? And only a blind person would assert
> that the current loop is standing still while moving up and down.
> Current that stands still is zero current.
>
> A jump rope is a standing wave. Do you also assert that a jump
> rope in motion is standing still?

God. Now i remember why i stopped posting to this group!

Cecil, when are you gonna come out with your 2+2=4 dissertation?

Slick

2169. Compact Yagi Design for VHF???????????????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 05:06:03 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402072106.6ed7ef9f@posting.google.com>
Source record: 100341

Hi,

We would like to build our own Yagi from aluminum (better than
1/2" copper?) that can handle up to 400 watts or so.

We want to keep the antenna as compact as possible, but yet with
at least some directivity. I understand "compact" is a difficult
design parameter for VHF wavelengths, especially for a multi-element
Yagi, but that's what we want.

This would probably be a 3 element design, and it can be dedicated
for one frequency, or it can be broadband. There doesn't seem to be
too much design info on the web.

Any advice greatly appreciated.

Slick

2170. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 05:16:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4025c712$1_3@corp.newsgroups.com>
Source record: 100342

Dr. Slick wrote:
> Cecil, when are you gonna come out with your 2+2=4 dissertation?

I already did. 2 amps added in phase with 2 amps equals 4 amps flowing
in the same direction. Some people say that 4 amps stands still. Do
you think current can stand still?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2171. Re: Aluminum rod for yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 05:25:43 UTC
From: jimbo <jimbo@nospam.com>
Message-ID: <4025C856.735DF428@nospam.com>
Source record: 100343

http://www.dxengineering.com/

Hulen Smith wrote:

> Hey thanks a ton !!!!
> Now if I could just find some insulated element to boom mounts for 1/4 to 1"
> !!!
>
> Clay
>
> "butch" <butch@butch.com> wrote in message
> news:401FFEFB.AEC72F61@butch.com...
> > http://www.mcmaster.com
> >
> > mcmaster carr big place online to get almost anything.
> > they ship fast low cost too.
> >
> > butch
> >
> > K6ME wrote:
> >
> > > Have you tried ACE Hardware?
> >

2172. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 05:54:55 UTC
From: gmz79@aol.comnospam
Message-ID: <20040208005455.16864.00000404@mb-m26.aol.com>
Source record: 100344

I'm starting a project with some other guys on a 6M beacon which will end up on a mountaintop at around 10K ft in New Mexico. During winter, that means sub-zero temperatures, high winds, and ICE build-up on everything exposed. We would ideally like to put up an omnidirectional horizontally polarized antenna like a loop. Anyone have experience with building (or purchasing) such an antenna that would be sufficiently bulletproof to stand up to a severe weather environment? We could go vertical, of course, but since this beacon will be operating in a CW weak-signal environment under a wide variety of propagation modes (including ground wave, troposcatter, etc., where polarization is more important than it is with ionospheric propagation), we'd like to stay with horizontal if it's physically realistic to do that. What we don't want to have to do, however, is trek up to the mountain top every weekend to put the antenna back up. <g>

Bill / W5WVO
Albuquerque NM

The neat thing about running a loop is you can put some DC through it in the winter to keep the ice off.
KC*VIF
Greg Z
to thine own sound be true

2173. 418 mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 06:28:33 UTC
From: OZ <OZ@NOSPAMOZ.com>
Message-ID: <c04kpm$3nd2@imsp212.netvigator.com>
Source record: 100345
Cross-posted to: alt.ham-radio.packet,rec.radio.amateur.antenna

what is 418 mhz antenna like?

2174. Quarter wavelength sloper for 80 mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 09:04:34 UTC
From: Renzo <derenzo@tiscalinet.it>
Message-ID: <CYmVb.23586$U4.812203@twister1.libero.it>
Source record: 100346

I would like to install 4 quarter wavelength slopers with different
directions on the same tower. Any questions:
a) Is it a fine idea to select one of the slopers through a relay box
located at the tower?
b) Is there a way to use the selected one like the driven element and the
unused elements (3) like reflectors?
The fact is, is it possible to realize a parasitic electrically rotated
array using the quarter slopers instead of the
half wavelength (ARRL Antenna Handbook)?
Many thanks in advance for any possible infos about!

Best 73 de Renzo - IK0IZW - CW: let your fingers sing a song

2175. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 09:09:58 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0402080109.7c4abf6f@posting.google.com>
Source record: 100347

k3bu@aol.comnoUsama (Yuri Blanarovich) wrote in message
news:<20040206133219.15185.00000506@mb-m06.aol.com>...
> >
> >That's why the gamma match is liked. No split dipole. How were you
> >planning to get the impedance right with a split dipole?
> >--
> >Steve N, K,9;d, c. i My email has no u's.
>
>
> Gamma match is the worst of all the matches. Use fiberglass rod or tube, or
> piece of lexan or plexiglass. Better yet use folded dipole for driven element,
> increases impedance, efficiency and elegant for connections.

Maybe for six meters and up but the things are mechanical kluges for HF beams.

> Yuri, K3BU

w3rv

2176. Re: 418 mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 11:09:45 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.NET>
Message-ID: <Q-idnQpK6om7hLvdRVn-hw@comcast.com>
Source record: 100348
Cross-posted to: alt.ham-radio.packet,rec.radio.amateur.antenna

"OZ" <OZ@NOSPAMOZ.com> wrote in message
news:c04kpm$3nd2@imsp212.netvigator.com...
> what is 418 mhz antenna like?
>
>
It's like any antenna, only different.

>
>

2177. Cellular through glass mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 11:42:05 UTC
From: John B <JB99@forest.net>
Message-ID: <hgpVb.29929$WY4.7832829@news4.srv.hcvlny.cv.net>
Source record: 100349

I just installed an Antenna Specialists 'through glass' or 'on glass' antenna on my van for my Verizon cellular service. I now realized that when I removed the white sticky paper on the perimeter of the coupling, I also removed the white paper covering the 'center square'. I see no mention in the instruction to remove or not to remove this covering. Did I foul up the installation ?

John

2178. Re: Compact Yagi Design for VHF???????????????????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 12:07:21 UTC
From: Dave <noone@nowhere.com>
Message-ID: <K7ydnT97w-Dhu7vdRVn-iQ@crocker.com>
Source record: 100350

two things you are missing... what frequencies, and just how compact is compact?? a 3 ele yagi for 2m is only about 3' square, how much smaller would you want it??

"Dr. Slick" <radio913@aol.com> wrote in message news:1d15af91.0402072106.6ed7ef9f@posting.google.com...
> Hi,
>
> We would like to build our own Yagi from aluminum (better than
> 1/2" copper?) that can handle up to 400 watts or so.
>
> We want to keep the antenna as compact as possible, but yet with
> at least some directivity. I understand "compact" is a difficult
> design parameter for VHF wavelengths, especially for a multi-element
> Yagi, but that's what we want.
>
> This would probably be a 3 element design, and it can be dedicated
> for one frequency, or it can be broadband. There doesn't seem to be
> too much design info on the web.
>
> Any advice greatly appreciated.
>
>
> Slick

2179. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 12:30:22 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40262cb0_8@corp.newsgroups.com>
Source record: 100351

greg z wrote:
> We would
> ideally like to put up an omnidirectional horizontally
> polarized antenna like a loop.

A vertical 6m loop wouldn't be omnidirectional and a horizontal
6m loop would send most of your power up at a take-off-angle of
60 degrees. How about a vertical folded monopole with a good
ground plane?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2180. Re: Compact Yagi Design for VHF???????????????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 12:37:39 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <67bc20p53nmg286qmflr2l12ii61gvkklp@4ax.com>
Source record: 100352

On Sun, 8 Feb 2004 12:07:21 -0000, "Dave" <noone@nowhere.com> wrote:

>two things you are missing... what frequencies, and just how compact is
>compact?? a 3 ele yagi for 2m is only about 3' square, how much smaller
>would you want it??
>
Physics and the wavelength will limit how compact you can get.

Also, this design is more selective not only in direction, but will
cover a narrower frequency range than a vertical.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

2181. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 12:39:03 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <H5qVb.3686$032.17698@attbi_s53>
Source record: 100353

Gee Cecil, et al, Charge can stand still! It does in a fully charged capacitor.

Charge can move from place. It takes time for charge to move from place to place. The amount of charge moved from place to place divided by the time to move it from place to place is called current.

VOILA!! dQ/dt = current!! Ah! Physics is wonderful!!!!!!!!

:-)

C'mon guys! You're arguing about angels on pin heads.

DD

2182. Re: Cellular through glass mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 14:01:45 UTC
From: Peter <prichens@pimtech.com.au>
Message-ID: <4026413a$0$1736$5a62ac22@freenews.iinet.net.au>
Source record: 100354

Should be ok

Peter
VK4FSD

"John B" <JB99@forest.net> wrote in message
news:hgpVb.29929$WY4.7832829@news4.srv.hcvlny.cv.net...
> I just installed an Antenna Specialists 'through glass' or 'on glass'
> antenna on my van for my Verizon cellular service. I now realized that
when
> I removed the white sticky paper on the perimeter of the coupling, I also
> removed the white paper covering the 'center square'. I see no mention in
> the instruction to remove or not to remove this covering. Did I foul up
the
> installation ?
>
> John
>
>

2183. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 14:16:08 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040208091608.13646.00001346@mb-m27.aol.com>
Source record: 100355

>Do
>you think current can stand still?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

I will help :-)

Nope, is no current when no flow, is standing water. If flow then current, my dicksionary say so. Charge and credit cards can stay.

2184. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 14:33:44 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <s4udnRXKnqtX1bvdRVn-jg@comcast.com>
Source record: 100356

Cecil,

I think by a loop he meant something like a Halo. They seem to be pretty common with beacons. You could stack two of these vertically for gain, but at 6m the spacing gets kind of long. My concern would be that the thing still works when the matching element gets iced over.

Bill: Talk to tyhe people at M Squared.

Tam/WB2TT
"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:40262cb0_8@corp.newsgroups.com...
> greg z wrote:
> > We would
> > ideally like to put up an omnidirectional horizontally
> > polarized antenna like a loop.
>
> A vertical 6m loop wouldn't be omnidirectional and a horizontal
> 6m loop would send most of your power up at a take-off-angle of
> 60 degrees. How about a vertical folded monopole with a good
> ground plane?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2185. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 14:43:51 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0402080643.6a91422d@posting.google.com>
Source record: 100357

>"Bill VanAlstyne" <w5wvo@cybermesa.net> wrote in message
news:<c042otrmp1@reader2.nmix.net>...
> I'm starting a project with some other guys on a 6M beacon
> which will end up on a mountaintop at around 10K ft in New
> Mexico. During winter, that means sub-zero temperatures,
> high winds, and ICE build-up on everything exposed. We would
> ideally like to put up an omnidirectional horizontally
> polarized antenna like a loop. Anyone have experience with
> building (or purchasing) such an antenna that would be
> sufficiently bulletproof to stand up to a severe weather
> environment? We could go vertical, of course, but since this
> beacon will be operating in a CW weak-signal environment
> under a wide variety of propagation modes (including ground
> wave, troposcatter, etc., where polarization is more
> important than it is with ionospheric propagation), we'd
> like to stay with horizontal if it's physically realistic to
> do that. What we don't want to have to do, however, is trek
> up to the mountain top every weekend to put the antenna back
> up. <g>

I'd immediately consider a ruggedized Squalo.

http://www.wia.org.au/armag/2002/AR_May02_TA1.pdf

I doubt that the specific design shown in the article would take the
kind of abuse you're talking about but it's a conceptual and
dimensional starting point I'd make the loop from one inch copper
water tube and 90 degree soldered copper elbows. I wouldn't use a
gamma match, they're trouble looking for a place to start in an
application like this. I'd attach a few feet of some kind of good RG-8
size coax directly to the feedpoints and string (suitable) ferrite
beads on the coax right at the feedpoint. Then run the coax down the
antenna support to a sealed box which contains some sort of simple
tuning network which would be completely out of the weather. I'd also
make really sure the loop was well supported including nonconductive
struts from the support mast to the far corners of the loop.

There would be a good bit of cut and try involved, material selection
issues and mechanical details to be worked out but hey, that's ham
radio for ya!

>
> Bill / W5WVO
> Albuquerque NM

Brian w3rv

>
> ----------------------------
> The neat thing about running a loop is you can put some DC through
> it in the winter to keep the ice off.

Where are ya gonna get those kinds of amps? As in amperes.

> KC*VIF
> Greg Z
> to thine own sound be true

2186. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 16:27:51 UTC
From: VE1BLL@rac.ca
Message-ID: <8a615218.0402080827.7a640c9a@posting.google.com>
Source record: 100358

Cecil Moore wrote (in part):
> ...I don't even read the rest of posting.

A very bad policy. In this case, you missed the part where you were completely pre-empted - it made your subsequent response at that point rather useless. Hardly a timesaver.

Of course, this assumes that you're being honest about what really happened. I'm willing to make that assumption. I know that you're busy... ;-)

Carry on then.

2187. Re: Anyone ever cast a plastic dipole center peice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 16:50:27 UTC
From: Winston <win@here.com>
Message-ID: <r1qc20p6lofj8amsuoth9hlppm567cq87p@4ax.com>
Source record: 100359

Schedule 40 or 80 PVC has worked well for me on 10 and 15 meters.
Above 30 MHz it may become resistive. I would bet it is safe to 6
meters.

Win W0LZ

2188. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 17:51:32 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <EGuVb.27594$CE5.18653@nwrddc03.gnilink.net>
Source record: 100360

"greg z" <gmz79@aol.comnospam> wrote in message
news:20040208005455.16864.00000404@mb-m26.aol.com...
> I'm starting a project with some other guys on a 6M beacon
> which will end up on a mountaintop at around 10K ft in New
> Mexico. During winter, that means sub-zero temperatures,
> high winds, and ICE build-up on everything exposed. We would
> ideally like to put up an omnidirectional horizontally
> polarized antenna like a loop. Anyone have experience with
> building (or purchasing) such an antenna that would be
> sufficiently bulletproof to stand up to a severe weather
> environment? We could go vertical, of course, but since this
> beacon will be operating in a CW weak-signal environment
> under a wide variety of propagation modes (including ground
> wave, troposcatter, etc., where polarization is more
> important than it is with ionospheric propagation), we'd
> like to stay with horizontal if it's physically realistic to
> do that. What we don't want to have to do, however, is trek
> up to the mountain top every weekend to put the antenna back
> up. <g>
>
> Bill / W5WVO
> Albuquerque NM
>
>
>Omni (quasi) loops for V/U are open at the far end
HF loops (typically 1 wavelength) that are closed loops) have a pattern
almost identical to a dipole- i.e. not even close to omni
Dale W4OP

2189. Rotator recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 17:51:48 UTC
From: ericdwong@yahoo.com
Message-ID: <7b667fe1.0402080951.77fafe5e@posting.google.com>
Source record: 100361

OK I know this isnt the TV antenna forum, however I believe you all had better knowledge then the average "TV antenna" person. Anyway, I'm looking for a rotator that will not shift in the wind, I have a 3 stack antenna, mounted approx 25 feet in the air. There is a dedicated FM wineguard antenna at the top, a large dish style UHF only antenna beneath it and a dedicated VHF only channel master beneath that. My problem now is the antenna shifts in the wind. There is an older Channel Master rotator on there now. From what I've read it does not have any mechanical brakes.

The rotator is located about midway on the "base support pole" which is supported by the chimney of the house, mounted in concrete, and has 3 guy wires attached to the top. So for a good 10 feet or so, the 2 masts run side by side.

I thought about the Channel Master model that is remote controlled, however I dont know if it has the brakes either. I need one that will hold its position. Any help would be great.

2190. Yagi height and tower recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 18:04:56 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <102fj00tnpeuad9@corp.supernews.com>
Source record: 100296

I am condidering putting up a tower and what is the recommended height for a 20 m yagi. Also I want a fold down tower, do you have some brand and model recomendations. I do not know anyone who has one.

73

Bill
W4WEG

2191. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 18:30:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40268129$1_1@corp.newsgroups.com>
Source record: 100362

Yuri Blanarovich wrote:
>>Do
>>you think current can stand still?

> I will help :-)
>
> Nope, is no current when no flow, is standing water. If flow then current, my
> dicksionary say so. Charge and credit cards can stay.

For those who think AC (and RF) current doesn't change directions every
1/2 cycle, here is a simple experiment, installed in a transmission line
with or without reflections, to prove otherwise:

```
diode
|\ |
+----| *|---(DC current meter)--+
| |/ | |
-------+ +---------
| | /| | |
+--(DC current meter)---|* |----+
| \|
diode
```

The upper diode will rectify the current flowing toward the right.
The lower diode will rectify the current flowing toward the left.
Ideally, the meters will read the same.

For those who think current stands still at a standing wave current loop,
if one installs the above measuring equipment at a current maximum point
on a standing wave, it will read the same current on both meters and that
current will NOT be zero.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2192. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 18:35:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40268257_1@corp.newsgroups.com>
Source record: 100363

J. Harvey wrote:

> Cecil Moore wrote (in part):
>>...I don't even read the rest of posting.
>
> A very bad policy.

Not an official policy, just a bad habit. When I read, "There are no
absolutes!", I stop reading and ask, "Are you absolutely sure?" :-)

> In this case, you missed the part where you were
> completely pre-empted - it made your subsequent response at that point
> rather useless. Hardly a timesaver.

I apologize and will try to kick that bad habit. It happened twice on
the same day. Mea Culpa
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2193. Re: Rotator recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 18:41:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026838f_1@corp.newsgroups.com>
Source record: 100364

Eric wrote:
> I thought about the Channel Master model that is remote controlled,
> however I dont know if it has the brakes either. I need one that will
> hold its position. Any help would be great.

Do a web search for "YAESU rotors" and peruse their models.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2194. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 19:22:38 UTC
From: richardharrison@webtv.net
Message-ID: <14299-40268C7E-255@storefull-3253.bay.webtv.net>
Source record: 100367

Cecil, W5DXP wrote:
"That you were talking about "at any specific point" wasn`t apparent to me from your following assertion."

I apologize for my lack of clarity. When I try to simplify by omission of detail, lack of specificity may lead to the wrong conclusion. I`ll try to explain succinctly yet in enough detail to avoid misleading.

Best regards, Richard Harrison, KB5WZI

2195. Re: Rotator recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 19:28:17 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <pYydnR1_A6dOELvdRVn-uA@comcast.com>
Source record: 100365

For something more rugged than a TV rotator, get the Yaesu model (G400 ?) that sells for about $240. Anything bigger is probably gross overkill. Check out www.hamradio..com , www.aesham.com , and www.texastowers.com . A side benefit you get with the Yaesu is a real control box, not a clacker. You might be able to find one used. Also, same for an Alliance HD73.

Tam/WB2TT
"Eric" <ericdwong@yahoo.com> wrote in message
news:7b667fe1.0402080951.77fafe5e@posting.google.com...
> OK I know this isnt the TV antenna forum, however I believe you all
> had better knowledge then the average "TV antenna" person. Anyway,
> I'm looking for a rotator that will not shift in the wind, I have a 3
> stack antenna, mounted approx 25 feet in the air. There is a
> dedicated FM wineguard antenna at the top, a large dish style UHF only
> antenna beneath it and a dedicated VHF only channel master beneath
> that. My problem now is the antenna shifts in the wind. There is an
> older Channel Master rotator on there now. From what I've read it does
> not have any mechanical brakes.
>
> The rotator is located about midway on the "base support pole" which
> is supported by the chimney of the house, mounted in concrete, and has
> 3 guy wires attached to the top. So for a good 10 feet or so, the 2
> masts run side by side.
>
> I thought about the Channel Master model that is remote controlled,
> however I dont know if it has the brakes either. I need one that will
> hold its position. Any help would be great.

2196. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 19:28:22 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <ur2d20tnm5t7do9uespkksjuibn5kq8nah@4ax.com>
Source record: 100366

On Sun, 08 Feb 2004 17:51:32 GMT, "Dale Parfitt"
<par@parelectronics.com> wrote:

>
>"greg z" <gmz79@aol.comnospam> wrote in message
>news:20040208005455.16864.00000404@mb-m26.aol.com...
>> I'm starting a project with some other guys on a 6M beacon
>> which will end up on a mountaintop at around 10K ft in New
>> Mexico. During winter, that means sub-zero temperatures,
>> high winds, and ICE build-up on everything exposed. We would
>> ideally like to put up an omnidirectional horizontally
>> polarized antenna like a loop. Anyone have experience with
>> building (or purchasing) such an antenna that would be
>> sufficiently bulletproof to stand up to a severe weather
>> environment? We could go vertical, of course, but since this
>> beacon will be operating in a CW weak-signal environment
>> under a wide variety of propagation modes (including ground
>> wave, troposcatter, etc., where polarization is more
>> important than it is with ionospheric propagation), we'd
>> like to stay with horizontal if it's physically realistic to
>> do that. What we don't want to have to do, however, is trek
>> up to the mountain top every weekend to put the antenna back
>> up. <g>
>>
>> Bill / W5WVO
>> Albuquerque NM
>>
>>
>>Omni (quasi) loops for V/U are open at the far end
>HF loops (typically 1 wavelength) that are closed loops) have a pattern
>almost identical to a dipole- i.e. not even close to omni
>Dale W4OP
>

Huh!? According to the article on L. B. Cebik's web page, a
one-wavelength horizontally oriented, horizontally polarized loop
antenna has a nearly circular pattern. As a large loop is driven by
increasing frequencies, the pattern becomes more like a starfish, but
it radiates relatively symmetrically in several directions, the number
of lobes increasing with frequency. A dipole has a broad
figure-of-eight pattern and a pair of strong lobes with minor
lide-lobes as it is driven by increasing frequencies. Try modelling a
dipole and a closed loop and see for yourself, don't believe me.

Russ

2197. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 19:40:53 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <9hwVb.741$t16.884790@newssvr28.news.prodigy.com>
Source record: 100219

I noticed the same thing with my 80M Full wave loop at the house.
Works great on 160 (with a tuner), 80, and 40, but distance seems to
drop off the higher in frequency I go. It's looped around four trees
(the supports) in the front yard, about 12 feet off the ground.

73 de AI8W, Chris

Bill Turner wrote:

> On 07 Feb 2004 18:07:05 GMT, theplanters95@aol.comnospam (Theplanters95)
> wrote:
>
>
>>Hi All,
>>
>>I am thing of putting up a loop antenna in my backyard. The diminsions are 34'
>>by 50' giving me a total loop of 168 feet. How will this antenna work on
>>80-10m if feed with 450 ladder line and about 10'-20' off the ground. On 80m I
>>am primarly interested in nvis, and on 20m-10m, dx.
>>
>>Randy ka4nma
>
>
> ----------
>
> Should work well for NVIS but will be a disappointment on 20 and a
> little less so on 15 and 10. Too close to the ground. For serious
> DXing on 20 an antenna should be at about 70 feet or more, otherwise the
> angle of radiation gets too high for the long-haul stuff. Would be ok
> for one-hop, though, roughly out to 2500 miles or so.
>
> --
> Bill, W6WRT
>

2198. Re: Rotator recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 19:41:23 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <v14d20het3uco6fmi0glfkq0svhfdljmua@4ax.com>
Source record: 100368

The HD73 would certainly handle the weight & windload for the setup
mentioned. However, it mounts to a rotor plate - don't know if there
is a mast mount for it like some of the Hy-Gain's I've seen. I have
an old HD73 and control box that isn't in use and I don't have a
projected need - if wanted by anyone here I'd let it go cheap.
Howard

On Sun, 8 Feb 2004 14:28:17 -0500, "Tarmo Tammaru"
<t-tammaru@home.com> wrote:

>For something more rugged than a TV rotator, get the Yaesu model (G400 ?)
>that sells for about $240. Anything bigger is probably gross overkill. Check
>out www.hamradio..com , www.aesham.com , and www.texastowers.com . A side
>benefit you get with the Yaesu is a real control box, not a clacker. You
>might be able to find one used. Also, same for an Alliance HD73.
>
>
>Tam/WB2TT
>"Eric" <ericdwong@yahoo.com> wrote in message
>news:7b667fe1.0402080951.77fafe5e@posting.google.com...
>> OK I know this isnt the TV antenna forum, however I believe you all
>> had better knowledge then the average "TV antenna" person. Anyway,
>> I'm looking for a rotator that will not shift in the wind, I have a 3
>> stack antenna, mounted approx 25 feet in the air. There is a
>> dedicated FM wineguard antenna at the top, a large dish style UHF only
>> antenna beneath it and a dedicated VHF only channel master beneath
>> that. My problem now is the antenna shifts in the wind. There is an
>> older Channel Master rotator on there now. From what I've read it does
>> not have any mechanical brakes.
>>
>> The rotator is located about midway on the "base support pole" which
>> is supported by the chimney of the house, mounted in concrete, and has
>> 3 guy wires attached to the top. So for a good 10 feet or so, the 2
>> masts run side by side.
>>
>> I thought about the Channel Master model that is remote controlled,
>> however I dont know if it has the brakes either. I need one that will
>> hold its position. Any help would be great.
>

2199. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 19:43:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40269236_2@corp.newsgroups.com>
Source record: 100220

Tdonaly wrote:
> Cecil says there's a taper but he doesn't
> attempt to say how much.

It is what it is, Tom, and can be measured.

> Yuri thinks it's a lot. Cecil seems to agree
> with him, but neither fellow has been willing to back his theory with a
> $$$$ NEW $$$ [{### IMPROVED ###}] mobile antenna.

Your observation is accurate but irrelevant. I'm not interested in an
improved antenna since I already improved it many years ago and equaled
the top performers in the shootout with an essentially costless junk box
antenna. My main thrust here at the moment is to set the technical record
straight and BBQ one of ham radio's sacred cows represented by W8JI's
following assertion:

>> "If you look at HOW an inductor works, the current flowing in one terminal
>> ALWAYS equals the current flowing out the other terminal."

So do you agree with Tom or with me since Tom's own measurements proved
him wrong?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2200. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 19:48:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026934f_2@corp.newsgroups.com>
Source record: 100221

Russ wrote:

> "Dale Parfitt" <par@parelectronics.com> wrote:
>>HF loops (typically 1 wavelength) that are closed loops) have a pattern
>>almost identical to a dipole- i.e. not even close to omn
>
> Huh!? According to the article on L. B. Cebik's web page, a
> one-wavelength horizontally oriented, horizontally polarized loop
> antenna has a nearly circular pattern.

Dale is obviously talking about a vertically oriented loop. And
a one wavelength horizontal loop is not a good omnidirectional antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2201. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 19:50:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402693dd$1_2@corp.newsgroups.com>
Source record: 100222

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "That you were talking about "at any specific point" wasn`t apparent to
> me from your following assertion."
>
> I apologize for my lack of clarity. When I try to simplify by omission
> of detail, lack of specificity may lead to the wrong conclusion. I`ll
> try to explain succinctly yet in enough detail to avoid misleading.

My fault, I should have assumed that the problem was my interpretation.
Blame it on the spoiled grape juice. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2202. Re: 418 mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 20:08:52 UTC
From: Steve GOG <FN30@optonlne.net>
Message-ID: <oHwVb.39395$WY4.10152083@news4.srv.hcvlny.cv.net>
Source record: 100223
Cross-posted to: alt.ham-radio.packet,rec.radio.amateur.antenna

an antenna for 418mhz is like an antenna for 71.7cm band , very similiar

hehe,

"Thomas C. Sefranek" <WA1RHP@ARRL.NET> wrote in message
news:Q-idnQpK6om7hLvdRVn-hw@comcast.com...
>
> "OZ" <OZ@NOSPAMOZ.com> wrote in message
> news:c04kpm$3nd2@imsp212.netvigator.com...
> > what is 418 mhz antenna like?
> >
> >
> It's like any antenna, only different.
>
> >
> >
>
>

2203. Re: Quarter wavelength sloper for 80 mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 20:31:39 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <L0xVb.15972$gl2.982@lakeread05>
Source record: 100224

Renzo, I'm sure members can answer your other questions I can't, but may I ask why you would choose 1/4 wavelength "slopers" when a 1/2 wavelength dipole (or several, as you planned) on the same tower would take up no more space, and probably significantly improve reception?

Jack

"Renzo" <derenzo@tiscalinet.it> wrote
> I would like to install 4 quarter wavelength slopers with different
> directions on the same tower. Any questions:
> a) Is it a fine idea to select one of the slopers through a relay box
> located at the tower?
> b) Is there a way to use the selected one like the driven element and the
> unused elements (3) like reflectors?
> The fact is, is it possible to realize a parasitic electrically rotated
> array using the quarter slopers instead of the
> half wavelength (ARRL Antenna Handbook)?
> Many thanks in advance for any possible infos about!

2204. Re: 418 mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 20:43:05 UTC
From: Tom Twist <tom@twist.no>
Message-ID: <mh7d20h2u2cjl3mf1ub5p07kpdojn801vk@4ax.com>
Source record: 100225
Cross-posted to: alt.ham-radio.packet,rec.radio.amateur.antenna

On Sun, 08 Feb 2004 20:08:52 GMT, "Steve GOG" <FN30@optonlne.net>
wrote:

>an antenna for 418mhz is like an antenna for 71.7cm band , very similiar
>
>hehe,
>
>
>"Thomas C. Sefranek" <WA1RHP@ARRL.NET> wrote in message
>news:Q-idnQpK6om7hLvdRVn-hw@comcast.com...
>>
>> "OZ" <OZ@NOSPAMOZ.com> wrote in message
>> news:c04kpm$3nd2@imsp212.netvigator.com...
>> > what is 418 mhz antenna like?
>> >
>> >
>> It's like any antenna, only different.
>>

It is a lot bigger than most antennas.
418mhz =418 milliHertz= 0.418 Hz (MHz is MegaHertz)
Wavelength is 718000 km ;-)

Tom

Email: tom@twist.no (lb8x@qsl.net)
Phone: +47 35972928/90662366, Ham call sign: LB8X Locator: JO49UA
Snail: Tom Twist, Kirkeveien 8A, N3970 Langesund, Norway

2205. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 21:12:57 UTC
From: tdonaly@aol.com
Message-ID: <20040208161257.27272.00001520@mb-m11.aol.com>
Source record: 100226

```
>
>Yuri Blanarovich wrote:
>>>Do
>>>you think current can stand still?
>
>> I will help :-)
>>
>> Nope, is no current when no flow, is standing water. If flow then current,
>my
>> dicksionary say so. Charge and credit cards can stay.
>
>For those who think AC (and RF) current doesn't change directions every
>1/2 cycle, here is a simple experiment, installed in a transmission line
Cecil wrote,
>with or without reflections, to prove otherwise:
>
> diode
> |\ |
> +----| *|---(DC current meter)--+
> | |/ | |
>-------+ +---------
> | | /| | |
> +--(DC current meter)---|* |----+
> | \|
> diode
>
>The upper diode will rectify the current flowing toward the right.
>The lower diode will rectify the current flowing toward the left.
>Ideally, the meters will read the same.
>
>For those who think current stands still at a standing wave current loop,
>if one installs the above measuring equipment at a current maximum point
>on a standing wave, it will read the same current on both meters and that
>current will NOT be zero.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

It's the charge flowing, Cecil. There wouldn't be any point in making
anything
out of the difference between charge and current flow except that you're
writing
about electromagnetic phenomena rather than network analysis where it's common
```

to write about current flow as if the current itself was was moving. As long as you
continue to be blind to these kinds of subtle distinctions, your theories are going
to remain little more than crackpot ranting. Yuri's in the same boat.
The other day, you made another mistake. You wrote that e^iwt represents
a standing wave. It doesn't. If you want to represent a standing wave successfully
you have to have length included in the formula as in
2Acos(wt+ph/2)cos(kx+ph/2)
where k is 2Pi/Lambda and ph is the phase difference between two equal amplitude
waves travelling in opposite directions, x representing length and A, amplitude.
You're the victim of sloppy thinking and theorizing, Cecil. You think that you can
use a strange combination of network theory and transmission line theory definitions
and ideas to make sort of a poor man's electromagnetics, and that if you make a

large enough number of posts to this newsgroup your theory will be proved
right. If it were that easy, we could burn all the old electromagnetics textbooks,
and smugly congratulate one another as we ate our marshmallows - roasted
over the bonfire - happy in the knowledge that we had finally rid the world of
vector calculus.
73,
Tom Donaly, KA6RUH

2206. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 21:30:14 UTC
From: tdonaly@aol.com
Message-ID: <20040208163014.27272.00001524@mb-m11.aol.com>
Source record: 100227

>
>Tdonaly wrote:
>> Cecil says there's a taper but he doesn't
Cecil wrote,
>> attempt to say how much.
>
>It is what it is, Tom, and can be measured.
>
>> Yuri thinks it's a lot. Cecil seems to agree
>> with him, but neither fellow has been willing to back his theory with a
>> $$$$ NEW $$$ [{### IMPROVED ###}] mobile antenna.
>
>Your observation is accurate but irrelevant. I'm not interested in an
>improved antenna since I already improved it many years ago and equaled
>the top performers in the shootout with an essentially costless junk box
>antenna. My main thrust here at the moment is to set the technical record
>straight and BBQ one of ham radio's sacred cows represented by W8JI's
>following assertion:
>
> >> "If you look at HOW an inductor works, the current flowing in one
>terminal
> >> ALWAYS equals the current flowing out the other terminal."
>
>So do you agree with Tom or with me since Tom's own measurements proved
>him wrong?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Tom would be right if he were only talking in network-theoretical terms.
Since he makes
his coils for maximum Q, his coils may be small enough for him to make that
assertion. I don't know. I've never seen a Tom Rauch coil.
Since you're not too slick in the electromagnetics department, yourself, you
shouldn't
be throwing stones at Tom. When, and if, you can ever demonstrate a knowledge
of
even the most basic ideas of electromagnetic theory, then maybe you and I can
find
something to agree on.
73,
Tom Donaly, KA6RUH

2207. Re: Compact Yagi Design for VHF???????????????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 21:32:03 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402081332.717bc52f@posting.google.com>
Source record: 100228

Gary S. <Idontwantspam@net> wrote in message
news:<67bc20p53nmg286qmflr2l12ii61gvkklp@4ax.com>...
> On Sun, 8 Feb 2004 12:07:21 -0000, "Dave" <noone@nowhere.com> wrote:
>
> >two things you are missing... what frequencies, and just how compact is
> >compact?? a 3 ele yagi for 2m is only about 3' square, how much smaller
> >would you want it??
> >
> Physics and the wavelength will limit how compact you can get.
>
> Also, this design is more selective not only in direction, but will
> cover a narrower frequency range than a vertical.
>

144 Megs. Just wanna make it as small as possible while retaining
directivity. Perhaps just a driven element and a director (no
reflector)?

I don't care if it's narrow-band.

S.

2208. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 21:41:57 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402081341.18025c27@posting.google.com>
Source record: 100229

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4025c712$1_3@corp.newsgroups.com>...
> Dr. Slick wrote:
> > Cecil, when are you gonna come out with your 2+2=4 dissertation?
>
> I already did. 2 amps added in phase with 2 amps equals 4 amps flowing
> in the same direction. Some people say that 4 amps stands still. Do
> you think current can stand still?

The other poster is right. Hint: dQ/dt=current flow. That's the
number of Coulombs that passes a particular plane in a unit of time,
usually seconds.

Hint: In a standing wave ratio, there is still the flow of
coulombs, but it's more like they are sloshing back and forth (AC)
between the high voltage nodes.

But if you measure the _DC_ current at a high voltage node, you
will see that there is none.

But Jesus, you argued about this for a million posts in the past.

Can't you maybe up the complexity to something like 2x3=6?

God, i wonder how long you could argue about that one!

Slick

2209. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 21:57:58 UTC
From: richardharrison@webtv.net
Message-ID: <11508-4026B0E6-112@storefull-3258.bay.webtv.net>
Source record: 100230

Greg wrote:
"We would ideally like to put up an omnidirectional horizontally
polarized antenna like a loop."

FM and TV broadcasters do it and succeed amid adversity. In the US, TV channel 2 is very near to 6 meters in wavelength. Now broadcasters may opt for circular polarization, but in early times they used horizontal polarization.

If crossed perpendicular dipoles are fed 90-degrees ouy-of-phase, the combination is called a turnstile array.

The turnstile antenna produces a pattern that is nearly circular in the plane of the turnstile. Due to the usual 1/2-wavelength of the turnstile elements and coupling to their supports, there are often dimples in the "circular" pattern which give an appearance of crossed figures of eight. For practical purposes, the pattern circularity is usually good enough for the turnstile to be accepted for VHF and UHF broadcasting.

Folded dipoles often make up the turnstile for the convenience of their impedance when electrically connected in parallel and for the lightning protection provided by closed-circuit antennas.

A single folded dipole is often wrapped into a halo shape with a small gap between its ends for omnidirectional service and greater simplicity than the turnstile. Capacitor plates are often added to the short-circuited ends of the folded dipole to increase the capacitance between its ends and thus improve current distribution which improves pattern circularity. An array of such halos in a vertical stack can provide gain by concentrating energy into a horizontal beam.

Phasing adjustments between elements stacked into the array of halos can tilt the beam up or down from the horizontal.

High antennas often use a couple of degrees of downward beam tilt to improve signals near the station and to reduce power loss in radiiation toward the zenith.

Delaying the feed to each next higher element by an additional 4 or 5 degrees often depresses the elevation angle below the horizontal by a degree or two.

Best regards, Richard Harrison, KB5WZI

2210. I need links for antennas on 88-107 Mhz (radio AM/FM)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 22:07:31 UTC
From: House_Lunatric <hdraskov@vip.hr>
Message-ID: <c06bv1eeg1@bagan.srce.hr>
Source record: 100231

[No readable article body recovered]

2211. Re: Compact Yagi Design for VHF???????????????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 22:23:42 UTC
From: Dave <noone@nowhere.com>
Message-ID: <hMudnV5KUfFvK7vdRVn-hg@crocker.com>
Source record: 100232

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0402081332.717bc52f@posting.google.com...
> Gary S. <Idontwantspam@net> wrote in message
news:<67bc20p53nmg286qmflr2l12ii61gvkklp@4ax.com>...
> > On Sun, 8 Feb 2004 12:07:21 -0000, "Dave" <noone@nowhere.com> wrote:
> >
> > >two things you are missing... what frequencies, and just how compact is
> > >compact?? a 3 ele yagi for 2m is only about 3' square, how much
smaller
> > >would you want it??
> > >
> > Physics and the wavelength will limit how compact you can get.
> >
> > Also, this design is more selective not only in direction, but will
> > cover a narrower frequency range than a vertical.
> >
>
> 144 Megs. Just wanna make it as small as possible while retaining
> directivity. Perhaps just a driven element and a director (no
> reflector)?
>
> I don't care if it's narrow-band.
>
>
> S.

you still haven't said how small you think is small. 2 elements would be
about 18" by 36" with full size elements, which is plenty small for me.

2212. Re: Compact Yagi Design for VHF???????????????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 22:26:46 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <hfdd209p6ul9hivdee58bdr6f93nqq70l5@4ax.com>
Source record: 100233

On 8 Feb 2004 13:32:03 -0800, radio913@aol.com (Dr. Slick) wrote:

>Gary S. <Idontwantspam@net> wrote in message
news:<67bc20p53nmg286qmflr2l12ii61gvkklp@4ax.com>...
>> On Sun, 8 Feb 2004 12:07:21 -0000, "Dave" <noone@nowhere.com> wrote:
>>
>> >two things you are missing... what frequencies, and just how compact is
>> >compact?? a 3 ele yagi for 2m is only about 3' square, how much smaller
>> >would you want it??
>> >
>> Physics and the wavelength will limit how compact you can get.
>>
>> Also, this design is more selective not only in direction, but will
>> cover a narrower frequency range than a vertical.
>>
>
> 144 Megs. Just wanna make it as small as possible while retaining
>directivity. Perhaps just a driven element and a director (no
>reflector)?
>
> I don't care if it's narrow-band.
>
You might take a peek at this product before you put too much time and
effort in:
<http://www.arrowantennas.com/146-3ii.html>

They also do ones for 70 cm and dual band, and can custom do ones for
a variety of frequencies.

The first reflector and director add greatly to performance, after
that the effect is less for each addition.

Compact in use and compact to carry are different things, think about
what you actually need.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

2213. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 22:39:39 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <c06dr8$124lqd$1@ID-175933.news.uni-berlin.de>
Source record: 100234

Previously: "An array of such halos in a vertical stack can
provide gain by concentrating energy into a horizontal beam."

N. B. A vertically stacked array of ANY kind of radiating element with ~ 1
lambda or less spacing can produce gain in the horizontal plane.

RF

Visit http://rfry.org for FM broadcast RF system papers.

2214. Re: Compact Yagi Design for VHF???????????????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 22:47:00 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c06e94$77k1$1@news3.infoave.net>
Source record: 100235

The fractal 2 meter quad would meet your needs.

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0402081332.717bc52f@posting.google.com...

> 144 Megs. Just wanna make it as small as possible while retaining
> directivity. Perhaps just a driven element and a director (no
> reflector)?
>
> I don't care if it's narrow-band.
>
>
> S.

2215. Re: I need links for antennas on 88-107 Mhz (radio AM/FM)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 22:48:09 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c06eb8$77o6$1@news3.infoave.net>
Source record: 100236

www.google.com

"House_Lunatric" <hdraskov@vip.hr> wrote in message
news:c06bv1eeg1@bagan.srce.hr...
>
>

2216. Re: These loading coils theories

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 22:57:46 UTC
From: richardharrison@webtv.net
Message-ID: <26572-4026BEEA-238@storefull-3256.bay.webtv.net>
Source record: 100240

Richard Clark wrote:
"Uh-huh, makes a trap an antenna?"

A trap usually isn`t the best radiator.

A 1/4-wave shorted stub is electrically equivalent to a parallel resonant circuit, so they are interchangeable. You can use a parallel resonant circuit to replace a 1/4-wave shorted stub or vice versa.

VHF collinear antenna arrays often use 1/4-wave shorted stubs to invert the phase at 1/2-wave intervals to keep the current going in the same direction in all elements.

The Franklin antenna is a vertical collinear array used by some medium wave broadcasters. A 1/4-wave stub would be inconvenient for the medium wave broadcaster, so he sometimes uses a parallel resonant circuit for his phase inverter between 1/2-wave collinear elements.

You might think the parallel resonant circuit or 1/4-wave shorted stub would function as a trap. Traps are used in multiband antennas. But the parallel resonant circuit does not function as a trap in collinear arrays. The length of the element beyond the tuned circuit is 1/2-wave resonant and readily accepts power through and around the tuned circuit. Not so with a trap. The length of the element beyond the trap is not resonant and accepts very little power. The trap is an isolator which keeps power out of the extension beyond the trap. The phase inverter is a coupler which conveys energy with a phase reversal produced by the inverter.

Best regards, Richard Harrison, KB5WZI

2217. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 23:00:06 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <c06ebd$3rj$1@news.service.uci.edu>
Source record: 100237

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40241ca2$1_8@corp.newsgroups.com...
> That means when you look at the voltage waveform
> across a one ohm resistor, you are also looking at the current
> waveform.

Please give an example of when the voltage waveform across a resistor is
not due to the current flowing through the resistor.

73, Jim AC6XG

2218. need to change radiator size

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 23:00:36 UTC
From: Luddite <a2k@ripco.com>
Message-ID: <c06f2k$j26$1@e250.ripco.com>
Source record: 100238

I have this parabolic dish that it supposed to be cut for 2.5-2.6 ghz
and would like to make another feed the same shape for 2.45 ghz.
here is a picture, http://pages.ripco.net/~a2k/radiator.jpg
its dimensions are 100x86mm, anyone know the formula for the size
of this type of feed or what its called?

2219. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 23:04:45 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <c06fa9$13mrrf$1@ID-175933.news.uni-berlin.de>
Source record: 100239

>"Someone probably rejected relativity and said, 'How much
>effect does the orbit of Mercury have on the people of earth?' "

The word "effect," (result, consequence) is a noun. "Affect" is a verb (to act upon, to change or to cause a change), and, probably the appropriate word for the context of your post.

Perhaps the use of correct English would reduce reader confusion?

"Best regards"

RF

2220. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 23:12:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026c313$1_8@corp.newsgroups.com>
Source record: 100241

Tdonaly wrote:
> You're the victim of sloppy thinking and theorizing, Cecil.

OK, Tom, let's see if you are right. At a point on a transmission line,
the current waveform from a calibrated pickup coil is sinusoidal with
a maximum amplitude of one amp. Are there any standing waves on that
transmission line? With your vast knowledge, you should be able to
answer the question.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2221. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 23:14:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026c3bb$1_8@corp.newsgroups.com>
Source record: 100242

Dr. Slick wrote:
> Hint: In a standing wave ratio, there is still the flow of
> coulombs, but it's more like they are sloshing back and forth (AC)
> between the high voltage nodes.

Uhhhhh Slick, with coulombs sloshing back and forth in an RF environment,
dQ/dt is a sine wave.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2222. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 23:17:16 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026c44f_8@corp.newsgroups.com>
Source record: 100244

Jim Kelley wrote:

> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>That means when you look at the voltage waveform
>>across a one ohm resistor, you are also looking at the current
>>waveform.
>
> Please give an example of when the voltage waveform across a resistor is
> *not* due to the current flowing through the resistor.

That's the guys on the other side of the argument, Jim, who say coulombs
are sloshing back and forth through that resistor but there is no current.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2223. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 23:23:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026c5b1$1_8@corp.newsgroups.com>
Source record: 100245

Richard Fry wrote:

>>"Someone probably rejected relativity and said, 'How much
>>effect does the orbit of Mercury have on the people of earth?' "
>
> The word "effect," (result, consequence) is a noun. "Affect" is a verb (to
> act upon, to change or to cause a change), and, probably the appropriate
> word for the context of your post.

Nope, I said exactly what I intended to say. Before relativity, the prediction
for the orbit of Mercury contained an error. How much effect did that error
have on the people of earth?

> Perhaps the use of correct English would reduce reader confusion?

Perhaps you had better review your rules of English. "Effect" was used
properly as a noun.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2224. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 23:24:14 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <c06fom$50u$1@news.service.uci.edu>
Source record: 100243

----- Original Message -----
From: "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org>
Newsgroups: rec.radio.amateur.antenna
Sent: Saturday, February 07, 2004 9:16 PM
Subject: Re: Semantic Nonsense

> I already did. 2 amps added in phase with 2 amps equals 4 amps >flowing
> in the same direction.

You mean both directions. AC doesn't flow in just one direction. That
would be DC.

> Some people say that 4 amps stands still.

And one even says that AC moves in one direction. Isn't that silly? :-)

73, Jim AC6XG

2225. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-08 23:29:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026c723_8@corp.newsgroups.com>
Source record: 100246

Jim Kelley wrote:

> From: "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org>
>>2 amps added in phase with 2 amps equals 4 amps flowing
>>in the same direction.
>
> You mean both directions. AC doesn't flow in just one direction. That
> would be DC.

Instantaneous, Jim, instantaneous. AC flows in one direction for 1/2 cycle
and flows in the opposite direction for the other 1/2 cycle. A 2 amp phasor
at zero degrees added to a 2 amp phasor at zero degrees equals 4 amps at
zero degrees, flowing in the same instantaneous direction as the instantaneous
phasor components. When the two component phasors are at 180 degrees, they
and their sum are flowing in the opposite direction.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2226. Mobile Helical Winding info please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 00:05:25 UTC
From: mustang <adrian@ratherbeflying.net>
Message-ID: <4026cefe$1_3@news.chariot.net.au>
Source record: 100247

I'm trying to wind a set of helicals to use mobile on HF, and I'm wondering what guides there are. I have made them by close winding a half wavelength of wire on the rod, and have tried close winding on the top section of the rod, then widening the turns beteeen there and the base feedpoint. A length of 3/4 wavelength of wire is suggested there. But I am getting very weird effects. Can someone who has done this give me some tips please? I have searched the net, but find very little on this subject. I use a GDO, simple z bridge, and a vswr meter of course. Briefly, the weird effects include the freq DROPPING as wire is pruned! And an inability to get above 13.5 MHz if aiming at 14 MHz...it fluctuates as wire is cut and spacing is altered.
Frustrating.
Any tips & help appreciated.
Thanks,
Adrian
VK5AW

2227. Re: rf antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 00:29:38 UTC
From: ultanir_99@yahoo.com
Message-ID: <c403e21f.0402081629.2553b20f@posting.google.com>
Source record: 100248
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Before I start this circuit, could you guys suggest me any references
to look maybe, about some high freq. rf design tricks, etc

Thanks,
Adam

" Stephen Cowell" <scowell@sbcglobal.net> wrote in message
news:<NohUb.995$b13.39@newssvr23.news.prodigy.com>...
> "erdem" <ultanir_99@yahoo.com> wrote in message
> news:c403e21f.0402041633.6846c3f8@posting.google.com...
> > I am trying to build rf transmitter and receiver that could transfer
> > information (doors open closed, light on, etc, etc) from my car in the
> > parking lot to my office desk. The distance is about 100m. I would
> > like to have the receiver to be very small-key chain size. Therefore I
> > thought high frequency might result in a smaller antenna. Most
> > probably bandwidth will be very small (I do not need high speed data
> > transfer). I am not sure about the polarization issue. About the
> > power, that depends on the design, most probably. I am planning to use
> > the IC from; http://www.maxim-ic.com/Wireless.cfm
> >
> > Is it possible to do this kind of a device that small?
>
> Easily... as long as all it has to do is receive. You
> can pump out 20W of UHF RF from your car, you'll
> hear it without any antenna at all inside, probably.
> Your concerns are path loss (not that much through
> the walls of the building) and receiver antenna
> inefficiency (the greater of the two, since you put
> a small size limit).
>
> Perhaps you're talking about this chip:
>
> http://www.maxim-ic.com/view_press_release.cfm/release_id/932
>
> Pretty impressive, I must say... looks like fun.
>
> Keeping this On Topic for r.r.a.a, I'd start with
> a piece of wire 1/4 wave long, run around the
> perimeter of your device, as an antenna.
> --
> Steve
> KI5YG/EA
> .
>

>
> PS Make sure that you address any legal considerations
> about one-way automatic transmissions.

2228. Re: Compact Yagi Design for VHF???????????????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 00:40:58 UTC
From: Kingfish Stevens <kingfish@kingfish.net>
Message-ID: <9mld205i0ff77g7ll2d2hmdipe865c3d65@4ax.com>
Source record: 100249

On Sun, 08 Feb 2004 22:26:46 GMT, Gary S. <Idontwantspam@net> wrote:

Moxon Rectangle.....
Do a Google search for <moxon rectangle + calculator>

2229. Re: I need links for antennas on 88-107 Mhz (radio AM/FM)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 00:41:37 UTC
From: Kingfish Stevens <kingfish@kingfish.net>
Message-ID: <dpld209jdjloh4fl9btd4kejqtpn4f1ojl@4ax.com>
Source record: 100250

www.kmaantennas.com

2230. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 00:47:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <10hd20lqd9eh4r0dbm3n5prkcuk6td9r1d@4ax.com>
Source record: 100251

On Sun, 8 Feb 2004 17:04:45 -0600, "Richard Fry" <rfry@adams.net>
wrote:

>>"Someone probably rejected relativity and said, 'How much
>>effect does the orbit of Mercury have on the people of earth?' "
>_____________
>
>The word "effect," (result, consequence) is a noun. "Affect" is a verb (to
>act upon, to change or to cause a change), and, probably the appropriate
>word for the context of your post.
>
>Perhaps the use of correct English would reduce reader confusion?
>
>"Best regards"
>
>RF
>
Hello RF,

From the Oxford English Dictionary
effect v. 1589
1. to bring about, to accomplish
...
4. confused with Affect

effect sb. 1812
1c. the amount of work done in a given time.

affect sb. 1626
1. a mental disposition

affect v. 1794
1. to aim at, seek

Correct English is, and has always been, a matter of usage within
context. Verbs can serve as Nouns and Nouns as Verbs. Further, even
clauses and phrases may serve as Nouns or Verbs. The English language
is rich with example. Languages such as French and Italian have
historically had the affect to effect a fixed and static meaning to
every word and thus affect rules of "correctness." This effect has
lead to those languages becoming museum pieces. The common usage of
"affect" generally implies a faddish mannerism (which is frequently
observed in this forum e.g. a lot posting is merely affectation).

However, as to the issue of the sentence:
"How much effect does the orbit of Mercury have

on the people of earth?"

"the orbit of Mercury" is the Subject with the Predicate "does have" and the Compliment of "on the people of earth"

"How much effect" is an adverbial phrase modifying the Predicate through describing degree using the noun "effect" modified by the adjective "much."

Hence through usage, syntax, and definition, "effect" is a noun.

To test this usage, you can re-arrange the sequence to find: "The orbit of Mercury does have how much effect on the people of earth?" without changing the sense of the question. It is rather stilted and perhaps "The orbit of Mercury has how much effect on the people of earth?" flows better, but this, again, has no impact on the noun usage of "effect."

The key to the analysis is found in the adverb "how" with the proximity of the adjective "much" and "effect" a noun perfectly offering the classic characteristic of degree.

In other words, the sentence is both grammatically correct and conforms to your expectation. A better criticism would be that it is gratuitous.

73's
Richard Clark, KB7QHC

2231. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 00:52:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <09md20pkq5sfl9g9gs7vcg7mj2n6id5e6m@4ax.com>
Source record: 100252

On Sun, 08 Feb 2004 17:23:10 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>How much effect did that error have on the people of earth?
About as much as current taper in a coil.

2232. Re: Mobile Helical Winding info please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 00:55:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026db4b_5@corp.newsgroups.com>
Source record: 100254

mustang wrote:
> I'm trying to wind a set of helicals to use mobile on HF, and I'm
> wondering what guides there are. I have made them by close winding a
> half wavelength of wire on the rod, and have tried close winding on the
> top section of the rod, then widening the turns between there and the
> base feedpoint. A length of 3/4 wavelength of wire is suggested there.

By who?

> But I am getting very weird effects. Can someone who has done this give
> me some tips please? I have searched the net, but find very little on
> this subject. I use a GDO, simple z bridge, and a vswr meter of course.
> Briefly, the weird effects include the freq DROPPING as wire is pruned!
> And an inability to get above 13.5 MHz if aiming at 14 MHz...it
> fluctuates as wire is cut and spacing is altered.
> Frustrating.

One of the effects that you are seeing is when you add a turn to a helical longer than 1/2WL, the field generated by that turn subtracts from the field generated by other turns because the cosine of the current's phase angle has changed from plus to minus. Thus the *electrical* length of the antenna can be decreased by the addition of turns under certain circumstances. Of course, when you remove a troublemaking turn, the resonant frequency drops. Seems to me, a helical shouldn't be made electrically longer than 1/2WL. Most are 1/4WL.

If you locate an SWR current node in the middle of a coil, it's inductance will be drastically reduced. Instead of an n^2 term, there will be an (n1-n2)^2 term. A current minimum node should never be located inside a coil if an inductance is desired.

This is akin to putting two windings on a toroid, one CW and one CCW.
Fed in parallel, the result will be a very low magnitude of flux and
virtually no choking function.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2233. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 00:59:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026dc47_5@corp.newsgroups.com>
Source record: 100256

Richard Clark wrote:
> In other words, the sentence is both grammatically correct and
> conforms to your expectation. A better criticism would be that it is
> gratuitous.

In other words, when you can't find anything wrong with what is
being said, reply with an ad hominem statement. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2234. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 01:01:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4026dcb1_5@corp.newsgroups.com>
Source record: 100257

P N P wrote:

> Could someone direct me to a site that would show me how to build a balun
> for my long wire antenna to allow me the use of 50 ohm cable down to the
> receiver ?

If the "long wire" is not resonant, a balun won't do much good. What
are you doing with the coax braid at the point of connection to the
long wire?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2235. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 01:02:59 UTC
From: "Jim, N2VX" <ZZZjim_cronin@juno.comZZZ>
Message-ID: <89md201ask7qa207960qfpqss9mk5uq8uc@4ax.com>
Source record: 100255
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

On 6 Feb 2004 10:25:58 -0800, cde@rocketmail.com (ellisc) wrote:

>I have an 80s model delco am/fm radio. I'd like to attach an external
>long wire AM antenna, an external FM antenna, and rig something up so
>I can listen to it with headphones at bedside.
>
>Questions:
>
>1. What do I need to do/build the headphone connection? Can I put
>something together using the car radio speaker wires?

Get a 1/8" stereo jack from RS or wherever. Use a 100 ohm resistor
between left and right speaker outputs and the jack. Too loud? Try a
higher value. Not loud enough? Try a lower value. Resistors are
cheap.

>2. Is it possible to hook up the long wire antenna without getting too
>complicated? Can I use the antenna plug on the radio in some way, or
>will I have to get inside the box? I don't know a lot about
>electronics. I have a soldering iron and have fixed the occasional
>loose wire on things around the house, but not much more than that.

For normal use just put a 5 foot length of wire on it. That should
work for FM, too. It's not much different than what was on the car.

If you want to listen to distant stations a different antenna is
needed for AM and FM. I used a tuned loop antenna with a shielded
pickup loop on a mid-80's Dodge radio and it worked great. It was
selective enough to bring in stations adjacent to a nearby 50,000 watt
clear channel station (WHAM 1180, Rochester, NY).

Anyway, try it out. It will cost a buck or two and you will learn
something in the process.

Good luck,
Jim

2236. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 01:12:18 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040208201218.20606.00001072@mb-m21.aol.com>
Source record: 100258

>About as much as current taper in a coil.

Uh, Huh, Huh

2237. Re: Mobile Helical Winding info please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 01:36:00 UTC
From: mustang <adrian@ratherbeflying.net>
Message-ID: <4026e439_4@news.chariot.net.au>
Source record: 100259

Duno wot happened to cause the repeats.....Sorry.

mustang wrote:

> I'm trying to wind a set of helicals to use mobile on HF, and I'm
> wondering what guides there are. I have made them by close winding a
> half wavelength of wire on the rod, and have tried close winding on the
> top section of the rod, then widening the turns beteeen there and the
> base feedpoint. A length of 3/4 wavelength of wire is suggested there.
> But I am getting very weird effects. Can someone who has done this give
> me some tips please? I have searched the net, but find very little on
> this subject. I use a GDO, simple z bridge, and a vswr meter of course.
> Briefly, the weird effects include the freq DROPPING as wire is pruned!
> And an inability to get above 13.5 MHz if aiming at 14 MHz...it
> fluctuates as wire is cut and spacing is altered.
> Frustrating.
> Any tips & help appreciated.
> Thanks,
> Adrian
> VK5AW
>

2238. Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 01:47:54 UTC
From: wizard12342002@yahoo.com
Message-ID: <a3232cc0.0402081747.68fc0d91@posting.google.com>
Source record: 100260

Hello friends,

I am thinking about pushing my FT-57GX into service from my third floor apartment in the city. I have a good tuner, so one simple approach might be to connect a wire from the tuner and run the wire outside. Since I am not physically near the ground, I can run a wire to the cold water pipe and use my MFJ Artifical Ground to tune the reactance out of the ground system.

The one concern I have is that while operating I will be sitting near the tuner and therefore near the wire antenna and the ground wire, at the least the portion of them that connects to the tuner. Both the antenna and ground wire will presumably be carrying sizable RF currents when I am transmitting. Should I be concerned about RF exposure from this set-up (running up to 100 watts)?

Thanks,

JJ

2239. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 02:42:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rosd205a773v67foie8qcd1baku8ek7jtd@4ax.com>
Source record: 100261

On 09 Feb 2004 01:12:18 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:

>>About as much as current taper in a coil.
>
>Uh, Huh, Huh
yeah, I thought that was good too. ;-)

2240. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 03:03:07 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040208220307.20606.00001082@mb-m21.aol.com>
Source record: 100262

>
>The one concern I have is that while operating I will be sitting near
>the tuner and therefore near the wire antenna and the ground wire, at
>the least the portion of them that connects to the tuner. Both the
>antenna and ground wire will presumably be carrying sizable RF
>currents when I am transmitting. Should I be concerned about RF
>exposure from this set-up (running up to 100 watts)?
>
>Thanks,
>
>JJ
>
>

Don't worry about it. Hams and RF engineers at radio stations were and are exposed to huge by comparison levels of RF and they live long. This RF exposure crap is in the same category as global warming, vegetarian crap and ozone hole.

Enjoy your radio.

Yuri, K3BU

2241. Re: need to change radiator size

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 03:23:21 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <J2DVb.320$6i.103@nwrddc02.gnilink.net>
Source record: 100263

"Luddite" <a2k@ripco.com> wrote in message
news:c06f2k$j26$1@e250.ripco.com...
>
> I have this parabolic dish that it supposed to be cut for 2.5-2.6 ghz
> and would like to make another feed the same shape for 2.45 ghz.
> here is a picture, http://pages.ripco.net/~a2k/radiator.jpg
> its dimensions are 100x86mm, anyone know the formula for the size
> of this type of feed or what its called?

A parabolic surface is not "cut" for any frequency- it is frequency
independent as long as surface errors are tolerable at the highest frequency
of interest. . If the current feed has decent specs (i.e. return loss,
efficiency, F/D) at 2.5 GHz, it will be fine at 2.45 GHz.

Dale W4OP

2242. Re: need to change radiator size

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 04:29:19 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <z0EVb.1728$i61.96@newssvr23.news.prodigy.com>
Source record: 100264

"Dale Parfitt" <par@parelectronics.com> wrote in message
news:J2DVb.320$6i.103@nwrddc02.gnilink.net...
>
> "Luddite" <a2k@ripco.com> wrote in message
> news:c06f2k$j26$1@e250.ripco.com...
> >
> > I have this parabolic dish that it supposed to be cut for 2.5-2.6 ghz
> > and would like to make another feed the same shape for 2.45 ghz.
> > here is a picture, http://pages.ripco.net/~a2k/radiator.jpg
> > its dimensions are 100x86mm, anyone know the formula for the size
> > of this type of feed or what its called?
>
> A parabolic surface is not "cut" for any frequency- it is frequency
> independent as long as surface errors are tolerable at the highest
frequency
> of interest. . If the current feed has decent specs (i.e. return loss,
> efficiency, F/D) at 2.5 GHz, it will be fine at 2.45 GHz.

The question is kinda confusing, I know... but
the picture references a feed, not a dish.

Looks like a dipole feed... perhaps lengthen the dipole
arms?

--
Steve
KI5YG
.

2243. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 04:53:38 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c073oh$7hko$1@news3.infoave.net>
Source record: 100265

You will suffer the burning pain of global warming before the 100 Watts will bother you...

But then again, I could probably get a lawyer to prove your endangering my life, here in South Carolina, every time you key up.

Mores the pity...

"jj" <wizard12342002@yahoo.com> wrote in message news:a3232cc0.0402081747.68fc0d91@posting.google.com...
> Hello friends,
>
> I am thinking about pushing my FT-57GX into service from my third
> floor apartment in the city. I have a good tuner, so one simple
> approach might be to connect a wire from the tuner and run the wire
> outside. Since I am not physically near the ground, I can run a wire
> to the cold water pipe and use my MFJ Artifical Ground to tune the
> reactance out of the ground system.
>
> The one concern I have is that while operating I will be sitting near
> the tuner and therefore near the wire antenna and the ground wire, at
> the least the portion of them that connects to the tuner. Both the
> antenna and ground wire will presumably be carrying sizable RF
> currents when I am transmitting. Should I be concerned about RF
> exposure from this set-up (running up to 100 watts)?
>
> Thanks,
>
> JJ

2244. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 05:30:45 UTC
From: richardharrison@webtv.net
Message-ID: <11507-40271B05-303@storefull-3258.bay.webtv.net>
Source record: 100267

Mark Keith wrote:
"Start with a center load. Note the current taper. Then place the coil
below the midpoint level. Note the current taper."

Mark may want an indication of the better site on a too-short whip for a loading coil. John Devoldere, ON4UN shows what he`s found in his book "Low-Band DXing". On page 9-14 John says:
"It is clear now that the real issue with short verticals are EFFICIENCY and BANDWIDTH. -----Therefore maximum attention must be paid to these terms by:
>Keeping the radiation resistance as high as possible
>Keeping the losses of the loading devices as low as possible"

John gives radiation resistance formulas for base loading, top loading, center loading, combined top and base loading, and linear loading.

John says on page 9-19:
"The rule for keeping the radiation resistance high is simple:
>Use as long a vertical as possible (up to 90-degrees)
>Use top loading

Low-Band DXing is worth checking out.

Best regards, Richard Harrison, KB5WZI

2245. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 05:40:51 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402082140.158291d5@posting.google.com>
Source record: 100266

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> >>Then you disagree with the guys who say it has no taper. Guess what,
> >>Mark? That puts you on my and Yuri's side of the argument.
> >
> > Maybe so, but I place much less importance on this than he does.
>
> You may also place less importance on strawberry ice cream than
> he does.

I probably would. There are many other flavors I like better...
>
> > To me, it means very little, if anything.
>
> Yuri was accused of "Repeating misleading information". Here is
> a typical response to one of Yuri's postings:
>
> "You like to call names, insult people, and argue rather than take
> the time to learn basic electronics. ... If you look at HOW an inductor
> works, the current flowing in one terminal ALWAYS equals the current
> flowing out the other terminal."
>
> Note the word "ALWAYS". The ad hominem attacks upon Yuri is probably
> one reason he considers the subject to be important.

Thats fine, as long as he doesn't try to convince me it is. I have no
problem with anything he is doing. My only objection is to the early
claims that this amounts to gross error when modeling. It surely does
not. I'm not sure if he still believes this gross error exists or
not... MK

2246. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 06:01:55 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40272253.EB615CEF@cwis.net>
Source record: 100268

John,
No, I won't bother. A balun is unnecessary. Yhe
so called 'longwire balun's aren't, really, but they
seem to be a money maker for the manufacturers. Besides,
isn't a long wire antenna unbalanced to start with?
'Doc

2247. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 06:41:28 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402082241.1789ca6f@posting.google.com>
Source record: 100269

k3bu@aol.comnoUsama (Yuri Blanarovich) wrote in message
> >So now it's 0.51% efficient instead of only 0.49% right? [g]
> >
>
> Nope, more like going from not getting answers to my calls or CQ (S0 or less
> :-) to getting reports from W6, through P4 to Eu of S6 to S9. Even getting hell
> from W8JI for wiping out - QRMing the DX window.

The noise has been fairly low lately. How was the noise with the old
version? How long ago was that?
An A/B test would be needed to form an accurate conclusion. But I
don't doubt you saw an improvement if you raised the coil or added a
hat...

> You learned heads figure out the efficiency improvement in dBm, uV or dB or S
> units. It may not jive with your decimal points, but is OK with me.
>
> In the past Cecil showed some results from mobile antenna shootouts, where
> simple change in position of the loading coil can mean dBs or tens of dBs
> difference. Might not be reflected in your modeling results, but reality
> speaks. Those who built and used the stuff know it. Those who calculate it
> "know better"?

But! What does this have to do with the "current taper" debate? All
you are doing is applying practices that have been in use for years. I
was doing what you are doing about 14 years ago when I first got a
mobile radio. I've been using lower "add on " masts to boost coil
position since nearly day one. It was common knowledge even back then.
It doesn't really matter what the taper is across the coil, you still
are probably trying to get it as high as you can before coil losses
get too severe, and use as much top hat as you can. "If you use a
hat". I think appx 75% up is about as high as you would ever want to
go with a coil. You can use Reg's vertload and find the best position
to a degree of accuracy that would never be noticed on the air. 50% up
is very close behind in performance. Mine is 55% up " 10 ft center
load" when driving, and about 64% when parked and using the extra 3 ft
mast at the bottom. "13 ft with coil about 8.5 feet up". Sure, I could
jump it up to 70-75% , but it's not worth the hassle of whacking the
coil on every tree I pass. My coil is over 9 ft off the ground even in
the shorter 10 ft driving mode. Add three to that when parked.
I fully agree with elevating the coil position of short low band
verticals, but this is ancient news. What does the current taper, or
you knowing about it or measuring it, do to further improve the
antenna over what it would be anyway? It wouldn't effect me. I've
already got mine as high as I can get it without a major mast

overhaul.

>
> This is getting amusing and eye opening how many flat earth society members are
> out there. Keep on harping!

I'd rather be a flat earther than have delusions of a small current
taper across a loading coil really amounting to anything important,
other than maybe settling a pissing match with Tom. :/ It's not going
to change a thing in the real world because the optimum coil positions
are already known, and have been real world tested with FS tests.
Taper, or no taper. Just because you declare we have current taper
across the coil, does not mean anything is going to suddenly change.
It's just something to think about.
It's like worrying about the current taper on a dipole. Knowing about
it doesn't mean you can really do anything to further improve the
antenna. Some say CCD antennas are better, but I'm not convinced after
listening to quite a few over the years. I usually had a better
overall signal with my old fashioned "flat earth" coax fed dipoles,
than they did with their "new fangled" CCD antennas. Coil placement
can effect loaded dipoles and yagi's, but again, ancient news.
But anyway, glad to hear you are finally getting around to applying
these old commonly used practices to improve your antenna.
They haven't kept you locked away in a closet the past few years have
they? I keep getting visions of mushrooms... :/ MK

2248. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 07:00:52 UTC
From: gwhite <gwhite@hocuspocus_ti.com>
Message-ID: <c07b74$dc2$1@xuxa.iecc.com>
Source record: 100270
Cross-posted to: rec.audio.tech,rec.radio.amateur.antenna,rec.radio.broadcasting

"Eric K. Weber" wrote:
>
> Greetings:
>
> Radio Shack's antennas were manufactured by Winegard.....
>
> see :
> http://www.winegard.com/offair/prostar1000vhffmyagi.htm#6000
>
> Is this what you had in mind?

Since a yagi and turnstile are by definition not the same, no.

http://www.winegard.com/offair/pdf/pr-6010.pdf

2249. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 07:48:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h4ee20dpbe36vb3r4r3ma8fjcq9vjel41o@4ax.com>
Source record: 100272

On 8 Feb 2004 22:41:28 -0800, nm5k@wt.net (Mark Keith) wrote:
> I keep getting visions of mushrooms... :/ MK
And a Hookah smoking caterpillar? [a nod to "Jefferson Airplane" and Lewis Carrol]

In any case, we went round over this moving the load in the opposite direction many months ago (nothing's changed since then either):
>My model took no more than a minute to offer (in comparison to the
>like data already offered in response to your other post):
>>1 W2E1 1 0.00
>>2 .94658 0.00
>>3 .90287 0.00
>>4 .86518 0.00
>>5 .83014 0.00
>>6 .79686 0.00
>>7 .76486 0.00
>>8 .73383 0.00
>>9 .70357 0.00
>>10 .67393 0.00
>>11 .64482 0.00
>>12 .61614 -0.01
>>13 .58783 -0.01
>>14 .55984 -0.01
>>15 .53212 -0.01
>>16 .50463 -0.01
>>17 .47734 -0.02
>>18 .45021 -0.02
>>19 .42323 -0.02
>>20 .39637 -0.02
>>21 .36959 -0.02
>>22 .34288 -0.02
>>23 .31623 -0.02
>>24 .2896 -0.03
>>25 .26298 -0.03
>>26 .23634 -0.03
>>27 .20966 -0.03
>>28 .18292 -0.04
>>29 .15608 -0.04
>>30 .12912 -0.05
>>31 .102 -0.07
>>32 .07466 -0.09
>>33 .04706 -0.14
>>34 .01911 -0.32
>>35 .00929 -179.4

```
>>36 .03832 -179.9
>>37 .06839 180.00
>>38 .10011 180.00
>>39 .12989 180.00
>>40 .15719 180.00
>>41 .17431 180.00
>>42 .18799 180.00
>>43 .19776 180.00
>>44 .20299 180.00
>>45 .20331 180.00
>>46 .19816 180.00
>>47 .18701 180.00
>>48 .17804 180.00
>>49 .17045 180.00
>>50 .16365 180.00
>>51 .15741 180.00
>>52 .1516 180.00
>>53 .14614 180.00
>>54 .14097 180.00
>>55 .13604 180.00
>>56 .13133 180.00
>>57 .12679 180.00
>>58 .12241 180.00
>>59 .11817 180.00
>>60 .11405 180.00
>>61 .11005 180.00
>>62 .10614 180.00
>>63 .10233 180.00
>>64 .0986 180.00
>>65 .09494 180.00
>>66 .09134 180.00
>>67 .08781 180.00
>>68 .08434 180.00
>>69 .08091 180.00
>>70 .07754 180.00
>>71 .0742 180.00
>>72 .0709 180.00
>>73 .06764 180.00
>>74 .06441 180.00
>>75 .06121 180.00
>>76 .05804 180.00
>>77 .05488 180.00
>>78 .05175 180.00
>>79 .04863 180.00
>>80 .04553 180.00
>>81 .04243 180.00
>>82 .03935 180.00
>>83 .03626 180.00
>>84 .03318 180.00
>>85 .03009 180.00
```

>>86 .02699 180.00
>>87 .02387 180.00
>>88 .02073 180.00
>>89 .01754 180.00
>>90 .0143 180.00
>>91 .01096 180.00
>>92 .00748 180.00
>>93 Open .0035 180.00
>>
>The solenoid was dropped 10 inches between the two models.
>Best gain = -15.33dBi @ 29 deg for this
>Best gain = -9.52dBi @ 29 deg for the former

Lowering the coil led to nearly a 6dB drop - real world stuff and part
of the ham lore as you point out.

All this data pointed out then the current "peak" as has been
confirmed recently.

73's
Richard Clark, KB7QHC

2250. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 08:01:43 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402090001.6e0805@posting.google.com>
Source record: 100273

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4026c3bb$1_8@corp.newsgroups.com>...
> Dr. Slick wrote:
> > Hint: In a standing wave ratio, there is still the flow of
> > coulombs, but it's more like they are sloshing back and forth (AC)
> > between the high voltage nodes.
>
> Uhhhhh Slick, with coulombs sloshing back and forth in an RF environment,
> dQ/dt is a sine wave.

Errr, Cecil, dQ/dt is zero at the voltage nodes.

Hint: Just like the jump rope doesn't move at the ends...

Slick

2251. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 08:14:27 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40274163.FF05EBA3@cwis.net>
Source record: 100274

John,
Could you convert it to a 'Windom'? Sure, or a dipole, or
continue the thing around and make a loop out of it. Lots of
possibilities depending on the area you have to work with.
The question is, will a particular length and 'shape' be of any
benefit? Beats me, just depends on what frequency(s) you want
to use it on. Nothing works well on all frequencies, and almost
anything will work well on some frequency (lot of help, huh?).
There's also no 'rule' that says you have to keep whatever
antenna
you start with. If something doesn't work as well as you would
like, try something else. There is no one 'best' antenna...
'Doc

2252. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 09:32:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027549c_6@corp.newsgroups.com>
Source record: 100276

Richard Harrison wrote:
> John says on page 9-19:
> "The rule for keeping the radiation resistance high is simple:
>>Use as long a vertical as possible (up to 90-degrees)
>>Use top loading

I arrived at the same conclusion many years ago by assuming the
current taper in a 75m loading coil would be maximum when the coil
was as far away from the feedpoint as possible. Using that assumption
and a few free parts from my junk box, my top loaded mobile equaled
the best of the best (and most expensive) at one of the CA 75m
shootouts. And that was with a pretty small capacitive top hat.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2253. Re: 3 antennas modeled with EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 09:36:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027557d$1_6@corp.newsgroups.com>
Source record: 100277

Mark Keith wrote:
> My only objection is to the early
> claims that this amounts to gross error when modeling.

Again, you two may be using a different definition of "gross".
I would say a 20% error in the estimation of current at the
top of a loading coil is a pretty gross error. Your opinion
may differ.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2254. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 09:52:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027594e_6@corp.newsgroups.com>
Source record: 100278

Dr. Slick wrote:

> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Uhhhhh Slick, with coulombs sloshing back and forth in an RF environment,
>>dQ/dt is a sine wave.
>
> Errr, Cecil, dQ/dt is zero at the voltage nodes.

Nope, not over half a cycle, it isn't (starting at the zero crossing).

Let me get this straight: You are given an instrument for measuring RF
current on a transmission line and the task of measuring current at
a particular point. You measure one amp. Are you telling me you don't
know if that measurement is current or not? If it's at a voltage node,
it's not current???????????? Get real!
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2255. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 10:15:33 UTC
From: Tom Sevart <n2uhc@yahoo.nospam.com>
Message-ID: <c07fii$13g7lk$1@ID-52518.news.uni-berlin.de>
Source record: 100275
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

"ellisc" <cde@rocketmail.com> wrote in message
news:c057333a.0402062313.65dbf880@posting.google.com...

> The superradio isn't fm stereo, is it? I want stereo for fm listening.

It's only got one large speaker, not sure if it has stereo through the
headphone jack. Heck, I'm not even sure if it does have a headphone jack.
Mine is stowed away in the camper & is mainly used for listening on camping
trips.

--
Tom Sevart N2UHC
Frontenac, KS
http://www.geocities.com/n2uhc

2256. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 11:29:01 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <ee137ed4.0402090329.2b0efeeb@posting.google.com>
Source record: 100279
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

CDE,

The CCRadioPlus has FM Stereo via the Headphones and LineOuts.
+ External Antenna Connections: AM is OK and FM is Poor.
+ Build-in-Speaker Sound: Designed for th Human Voice; but Good.
+ Price = $160 -&- Value = Good
http://www.radiointel.com/review-ccradioplus.htm
http://groups.yahoo.com/group/CCRadio/

The GE Superadio III 'only' has Mono-Phonic FM Sound.
+ External Antenna Connections: AM is Ok and FM is Ok.
+ Build-in-Speaker Sound: The Best.
+ Price = $60 -&- Value = Very Good
http://groups.yahoo.com/group/SuperadioIII/

The Tivoli Model One FM Stereo via the Headphones and Rec-Out.
+ External Antenna Connections: FM is Ok and AM None.
+ Build-in-Speaker Sound: Very Good.
+ Price = $100 -&- Value = Good
http://www.tivoliaudio.com/pm1blu.htm

The Grundig S350 has FM Stereo via the LineOuts
and only Mono-Phonic Sound via the Headphones.
+ External Antenna Connections: AM is Very Good and FM is Very Good.
+ Build-in-Speaker Sound: Very Good.
+ Price = $100 -&- Value = Best
http://www.radiointel.com/review-GrundigS350.htm
http://groups.yahoo.com/group/Grundig-S350/

Recently claims have been made about the better than average
AM & FM Recetion of these radios:
* Cambridge Soundworks CD 740
* Sangean WR-1 Wooden Radio
* Sangean Q Radio

FWIW: I was not impressed with the FM Reception of the Tivoli Model
One.
- In the "Urban" SF Bay Area using an Omni-Directional "X" External
FM Antenna mounted at 28Ft. The Tivoli Model One performed as well
as the CCRadioPlus, GE Superadio III, Sony ICF-2010; Grundig S350;
and Grundig Satellit 800-M.
- In the "Rural" Twain Harte,CA location Up-in-the-Hills and
Down-in-the-Valley using an FM Reflect External FM Antenna located
on the second story of the house. The Tivoli Model One did not
performed as well as the CCRadioPlus, GE Superadio III, Sony ICF-2010;

and Grundig S350.

iane ~ RHF
.
.
= = = cde@rocketmail.com (ellisc)
= = = wrote in message news:<c057333a.0402062313.65dbf880@posting.google.com>...
> tommyknocker <tomynokr@uucp.hell> wrote in message
news:<1028n3f39rh5qb4@corp.supernews.com>...
> >
> > It would be easier to buy a normal radio. For AM a CCRadio or GE
> > Superadio 3 would work. The best FM reciever there is is the Tivoli
> > Audio Henry Kloss Model One, but be prepared to plunk down mucho dinero
> > for one ($100 last time I checked) and it's not that great on AM. I'd go
> > with a SR3, or you can try to get an SR2, which some think had better
> > build quality, but since it's (obviously) an earlier, out of production
> > model it's hard to find.
>

The superradio isn't fm stereo, is it? I want stereo for fm
listening.

= = = From: ellisc (cde@rocketmail.com)
= = = Subject: messing with a car radio
Newsgroups: rec.radio.amateur.homebrew, rec.radio.amateur.antenna,
rec.radio.amateur.equipment, rec.radio.shortwave
Date: 2004-02-06 10:25:59 PST

I have an 80s model delco am/fm radio. I'd like to attach an external
long wire AM antenna, an external FM antenna, and rig something up so
I can listen to it with headphones at bedside.

Questions:

1. What do I need to do/build the headphone connection? Can I put
something together using the car radio speaker wires?

2. Is it possible to hook up the long wire antenna without getting too
complicated? Can I use the antenna plug on the radio in some way, or
will I have to get inside the box? I don't know a lot about
electronics. I have a soldering iron and have fixed the occasional
loose wire on things around the house, but not much more than that.

Or should I just forget it and buy a portable receiver? I mainly want
to listen to AM talk at night and a particular FM college station in
the next town. I read on several posts about using a car radio
because of the AM reception.

I've also thought about buying a used Grundig receiver, in particular
the S350. I think having the option of listening to shortwave might
be fun. Does this thing put out good audio via headphones?

Thanks.

2257. VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 12:37:29 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <c07uen$ee5$1@fata.cs.interbusiness.it>
Source record: 100280

Hi to everybody,
I got the VSWR of an antenna from a Vector Analyzer and I'd like to know
(and how) if is possible to calculate the Quality Factor from it.
Thanks,
Massimo

2258. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 13:01:43 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <c080bl$13qivt$1@ID-175933.news.uni-berlin.de>
Source record: 100281

"jj" <wizard12342002@yahoo.com> wrote:

>Should I be concerned about RF exposure from this
>set-up (running up to 100 watts)?

OET Bulletin 65 of the FCC covers radiation hazards and limits for US transmitting stations, including amateur radio. The bulletin is available on line as a PDF file at the link below.

http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf

Pages 15-18 describe amateur radio requirements.

RF

2259. Re: 418 mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 13:11:08 UTC
From: OZ <OZ@NOSPAMOZ.com>
Message-ID: <c080v3$78b4@imsp212.netvigator.com>
Source record: 100282
Cross-posted to: alt.ham-radio.packet,rec.radio.amateur.antenna

Tom Twist <tom@twist.no> wrote in message
news:mh7d20h2u2cjl3mf1ub5p07kpdojn801vk@4ax.com...
> On Sun, 08 Feb 2004 20:08:52 GMT, "Steve GOG" <FN30@optonlne.net>
> wrote:
>
> >an antenna for 418mhz is like an antenna for 71.7cm band , very similiar
> >
> >hehe,
> >
> >
> >"Thomas C. Sefranek" <WA1RHP@ARRL.NET> wrote in message
> >news:Q-idnQpK6om7hLvdRVn-hw@comcast.com...
> >>
> >> "OZ" <OZ@NOSPAMOZ.com> wrote in message
> >> news:c04kpm$3nd2@imsp212.netvigator.com...
> >> > what is 418 mhz antenna like?
> >> >
> >> >
> >> It's like any antenna, only different.
> >>
>
> It is a lot bigger than most antennas.
> 418mhz =418 milliHertz= 0.418 Hz (MHz is MegaHertz)
> Wavelength is 718000 km ;-)
>
> Tom

not clear, do u have a pic of it.

TIA
> ---
> Email: tom@twist.no (lb8x@qsl.net)
> Phone: +47 35972928/90662366, Ham call sign: LB8X Locator: JO49UA
> Snail: Tom Twist, Kirkeveien 8A, N3970 Langesund, Norway

2260. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 13:17:17 UTC
From: richardharrison@webtv.net
Message-ID: <10437-4027885D-2@storefull-3251.bay.webtv.net>
Source record: 100283

Dr. Slick wrote:
"Err, Cecil, dQ/dt is zero at the voltage nodes."

dQ/dt is the rate of change in electrical charge with respect to time.

Charge moves in synch the applied voltage in a resistance. So, a sinusoidal voltage node is a point in the cycle where the voltage has zero amplitude, and so does the current. dQ/dt is hardly zero at zero crossings of the a-c waveform.

A standing wave node is different. The voltage is always zero at a complete cancellation type standing wave node because at all points in the cycle the voltage sum is zero if the node voltage is composed of equal and oppositely phased waves. The nodal point is a minimum but is not nescessarily a zero point if the reflected wave is not the equal of the incident wave.

In the sinewave cycle, zero amplitude occurs at zero crossing points in time. The rate of change, or slope of the a-c charge movement line is maximum at zero-crossings, i.e., the change in movement of charges is most at zero-crossings.

At positive and negative peaks of the sinewave, the slope is zero.

Cecil wrote:
"Nope, not over half a cycle, it isn`t (starting at the zero crossing)."

Cecil is getting at the effective value of an a-c waveform which is rms.

Slick and Cecil are talking about two different things.

Best regards, Richard Harrison, KB5WZI

2261. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 13:53:29 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <ee137ed4.0402090553.5a96a0cc@posting.google.com>
Source record: 100284
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

CDE,

ANTENNA:
You could try building a 'Low Noise' AM Antenna that can
start at near ground level and going up to as far as you
can get it and then out as far as your can make it.
NOTE: This is usually called an Inverted "L" Antenna.
* First install a Ground Rod and a short Heavy Ground
Wire at the Base / Starting Point of the Antenna.
* The Antenna Element was 100 Feet of Landscape Lighting
Cable (Heavy Duty Outdoors Zip Cord).
* Affixed the Two Wires of the Near-Feed-End of the
Antenna Element across a TV 300 Ohm Matching Transformer
and connected them one-to-one.
* Secure the The Near-Feed-End of the Antenna Element and
Matching Transformer using insulators to the Ground Rod.
* Stripped and Twisted Together the Wires of the Far-End
of the Antenna Element and covered them with electrical tape.
* Ran/Routed the Antenna Element from the Ground level
up to the Top of the First / Near Antenna Support.
* Ran/Routed the Antenna Element from the Top of the First /
Near Antenna Support to the Top of the Far Antenna Support.
* Attach 50Ft to 100Ft of 75 Ohm Coax Cable to the other
end of the Mounting Transformer.
* Attached a short Heavy Ground Wire to the 75 Ohm Side
of the Mounting Transformer.
* Ran/routed the Coax Cable from the the Antenna Element
to the your Car Radio's location.
* Terminate the 75 Ohm Coax Cable with an Motorola Connector.
* Plug the Motorola Connector into the Car Radio.
TBL: The Antenna Element is a "Flat-Thin-Loop" that is
Physically 100 Ft Long and Electrically 200 Ft Out-and-Back.

ALTERNATE: To the Random Wire Antenna is to use a CB 104"
Stainless Steel Whip Antenna mounted on a piece of 21Ft Top Rail.
* A proper Antenna Insulated "Mount" is required to be used
between the Whip and the Top Rail.
* Use a 75 Ohm Coax Cable from the the Antenna to the Radio.
* Connect the Center Wire of the Coax Cable to the Whip
Antenna Element and the Outer Shield to the Top Rail.
* Terminated the Coax Cable with a Motorola Plug.
* The Base (Butt-End)) of this piece of Top Rail should be
3Ft-5Ft in the Ground and allow the Top Rail to be Free Standing.
NOTE: The Top Rail is your Antenna and Car Radio Ground.

STEREO HEADPHONES:
NOTE: Since your did not ask about Hooking-Up a Pair of
Stereo Speakers. I assume you know how.

The simplest method of making the connection between the
Car Radio's audio power amplifier Stereo Output and your
Stereo Headphones is using a pair of Dropping Resisitors
with a 1/8" or 1/4" Stereo Jack to match-up with your
Headphones and Two Dropping Resisitors.
THE HOOK-UP: The Barrel of the Stereo Jack is Ground;
Center-Section is the Left-Side Stereo Sound; and the
Tip is Right-Side Stereo Sound. For the Center-Section
and the Tip use an Equal Value Dropping Resistor.
Here is a suggested 'value' of Dropping Resistors for
different basic Headphone Impedances:
* 4 Ohms Headphones = One 43 Ohm One Watt Resistor per Side.
* 8 Ohms Headphones = One 82 Ohm One Watt Resistor per Side.
* 16 Ohms Headphones = One 160 Ohm One Watt Resistor per Side.
* 32 Ohms Headphones = One 330 Ohm One Watt Resistor per Side.

iane ~ RHF
.
.
= = = cde@rocketmail.com (ellisc)
= = = wrote in message news:<c057333a.0402061025.a119808@posting.google.com>...

I have an 80s model delco am/fm radio.
I'd like to attach an external long wire AM antenna,
an external FM antenna, and rig something up so I can
listen to it with headphones at bedside.

Questions:

1. What do I need to do/build the headphone connection?
Can I put something together using the car radio speaker wires?

2. Is it possible to hook up the long wire antenna without
getting too complicated?
Can I use the antenna plug on the radio in some way, or
will I have to get inside the box?
I don't know a lot about electronics. I have a soldering
iron and have fixed the occasional loose wire on things
around the house, but not much more than that.

Or should I just forget it and buy a portable receiver?
I mainly want to listen to AM talk at night and a
particular FM college station in the next town.
I read on several posts about using a car radio because
of the AM reception.

I've also thought about buying a used Grundig receiver,
in particular the S350. I think having the option of
listening to shortwave might be fun. Does this thing
put out good audio via headphones?

Thanks.

.

2262. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 14:32:13 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <la6f20hnnh6mpospcetd4ru6e2cn3irdih@4ax.com>
Source record: 100285

On Mon, 9 Feb 2004 11:52:07 -0800, "P N P" <jck54@mcmedia.com.au>
wrote:

>Could someone direct me to a site that would show me how to build a balun
>for my long wire antenna to allow me the use of 50 ohm cable down to the
>receiver ?
>T.I.A.
>John
>

I would skip the balun and just get an inexpensive antenna tuner from
MFJ. Attach your long wire to it, twist the controls for maximum
static at a particular frequency, and that's it.

Bob
k5qwg

2263. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 14:53:39 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4026483b_2@newsfeed.slurp.net>
Source record: 100286

John, you don't necessarily need a balun. Not knowing your installation, I would most likely split the coax at the feedpoint (which, for longwires, can be virtually anywhere), and run the shield to ground (counterpoise, etc.). No balun needed...

- Mike KI6PR
El Rancho R.F., CA

"P N P" wrote
> Could someone direct me to a site that would show me how to build a balun
> for my long wire antenna to allow me the use of 50 ohm cable down to the
> receiver ?
> T.I.A.
> John
>
>

2264. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 14:56:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027a0a5_6@corp.newsgroups.com>
Source record: 100287

Richard Harrison wrote:
> Cecil is getting at the effective value of an a-c waveform which is rms.
> Slick and Cecil are talking about two different things.

I was a little sleepy when I wrote that. It didn't occur to me until later that Slick can also use dQ/dt = 0 over a complete cycle to prove that the average value of any AC current is zero, not just at a voltage node. Hence the necessity for RMS values for AC.

If Slick can tell a forward wave from a traveling wave by taking one and only one current measurement at one point on a transmission line, and knowing nothing else about the system, he is a better man than I.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2265. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 15:01:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027a1a2$1_6@corp.newsgroups.com>
Source record: 100288

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>The net current is the phasor sum of the forward and reflected
>>currents.
>
> ...
>
>>they are flowing
>>in opposite directions
>
> Uh-Huh

Now you are resorting to selective editing to completely change the
meaning. Tsk, Tsk, Richard. I can do the same thing by editing out
every "not" in your postings and replacing it by '...'.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2266. Re: 418 mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 15:09:36 UTC
From: Tom Twist <tom@twist.no>
Message-ID: <jj8f20l0j9e6a5iq4bcl9j6hpitd4r082a@4ax.com>
Source record: 100289
Cross-posted to: alt.ham-radio.packet,rec.radio.amateur.antenna

On Mon, 9 Feb 2004 21:11:08 +0800, "OZ" <OZ@NOSPAMOZ.com> wrote:

>
>Tom Twist <tom@twist.no> wrote in message
>news:mh7d20h2u2cjl3mf1ub5p07kpdojn801vk@4ax.com...
>> On Sun, 08 Feb 2004 20:08:52 GMT, "Steve GOG" <FN30@optonlne.net>
>> wrote:
>>
>> >an antenna for 418mhz is like an antenna for 71.7cm band , very similiar
>> >
>> >hehe,
>> >
>> >
>> >"Thomas C. Sefranek" <WA1RHP@ARRL.NET> wrote in message
>> >news:Q-idnQpK6om7hLvdRVn-hw@comcast.com...
>> >>
>> >> "OZ" <OZ@NOSPAMOZ.com> wrote in message
>> >> news:c04kpm$3nd2@imsp212.netvigator.com...
>> >> > what is 418 mhz antenna like?
>> >> >
>> >> >
>> >> It's like any antenna, only different.
>> >>
>>
>> It is a lot bigger than most antennas.
>> 418mhz =418 milliHertz= 0.418 Hz (MHz is MegaHertz)
>> Wavelength is 718000 km ;-)
>>
>> Tom
>
>
>not clear, do u have a pic of it.
>

Sorry

I don't operate on such low frequencies.

Tom

Email: tom@twist.no (lb8x@qsl.net)
Phone: +47 35972928/90662366, Ham call sign: LB8X Locator: JO49UA
Snail: Tom Twist, Kirkeveien 8A, N3970 Langesund, Norway

2267. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 15:31:11 UTC
From: Cambio <CAM@ripped.net>
Message-ID: <gUNVb.11650$IF1.9846@fed1read01>
Source record: 100291

Not sure what you mean by Quality Factor -- but from URL:
http://www.antennex.com/preview/vswr.htm

"As a rule of thumb, any accurate VSWR reading under 2:1 is probably not
worth the effort to achieve if the other elements of your antenna system are
the best you can make them."
--
73- Cambio - Keyboard To You (:-)

"Massi" <msignorini@calearotlc.com> wrote in message
news:c07uen$ee5$1@fata.cs.interbusiness.it...
> Hi to everybody,
> I got the VSWR of an antenna from a Vector Analyzer and I'd like to know
> (and how) if is possible to calculate the Quality Factor from it.
> Thanks,
> Massimo
>
>

2268. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 15:37:10 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040209103710.11541.00001672@mb-m12.aol.com>
Source record: 100290

>
>OET Bulletin 65 of the FCC covers radiation hazards and limits for US
>transmitting stations, including amateur radio. The bulletin is available
>on line as a PDF file at the link below.
>
>
>http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet
65/oet65.pdf
>
>Pages 15-18 describe amateur radio requirements.
>
>RF
>
>\

Pile of unfounded bullsheet! Biggest crock with ARRL saupport.

When you get to UHF and microwaves, Yes, there is the problem, mainly due to heating effect.

But up 30 MHz, just ask any of the 90 year old OF hams and broadcast engineers that lived their lives in the RF fields. Most of them lead active life, free of cancer (unless they smoked it in).

Yuri

2269. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 15:45:10 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <qiaf209mgsbinlp0q05m53mhbm20g61k7p@4ax.com>
Source record: 100292

On Mon, 9 Feb 2004 13:37:29 +0100, "Massi" <msignorini@calearotlc.com>
wrote:

|Hi to everybody,
|I got the VSWR of an antenna from a Vector Analyzer and I'd like to know
|(and how) if is possible to calculate the Quality Factor from it.
|Thanks,
|Massimo

Do you have the R +jX data, or only VSWR?
|

2270. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 16:22:28 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <c08bvdqqq1@grillo.cs.interbusiness.it>
Source record: 100293

> Do you have the R +jX data, or only VSWR?
> |
>

I have also the Smith Chart and the R+jX data for every frequency (I'm working about between 10 MHz and 15 MHz)

2271. Re: Rotator recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 17:42:55 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <5NOdnWB3d4U_W7rdRVn-hw@comcast.com>
Source record: 100294

"Howard" <mensch90249@yahoo.com> wrote in message
news:v14d20het3uco6fmi0glfkq0svhfdljmua@4ax.com...
> The HD73 would certainly handle the weight & windload for the setup
> mentioned. However, it mounts to a rotor plate - don't know if there
> is a mast mount for it like some of the Hy-Gain's I've seen. I have
> an old HD73 and control box that isn't in use and I don't have a
> projected need - if wanted by anyone here I'd let it go cheap.
> Howard

Howard,

You must have thrown away your lower mast support. I rejuvenated my old HD73, and presently have it on a chimney mount with 1-3/8 Al pipe, holding up a 432 MHz antenna. Prior to that, the HD73 was for 20 years on a tubular Wilson tower, supporting a small tribander and a KLM 7 element 6m beam.

Tam/WB2TT

2272. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 18:05:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nqif20pr7c92hotffvffgf9n715o7hpnm6@4ax.com>
Source record: 100295

On Mon, 09 Feb 2004 09:01:34 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Richard Clark wrote:
>
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>The net current is the phasor sum of the forward and reflected
>>>currents.
>>
>> ...
>>
>>>they are flowing
>>>in opposite directions
>>
>> Uh-Huh
>
>Now you are resorting to selective editing to completely change the
>meaning. Tsk, Tsk, Richard. I can do the same thing by editing out
>every "not" in your postings and replacing it by '...'.
I noticed you do not retract your statement but whine about analysis
Tsk, Tsk

2273. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 18:14:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027cee0_6@corp.newsgroups.com>
Source record: 100297

Yuri Blanarovich wrote:
> But up 30 MHz, just ask any of the 90 year old OF hams and broadcast engineers
> that lived their lives in the RF fields. Most of them lead active life, free of
> cancer (unless they smoked it in).

How about all the people who once swore by diathermy treatments
offered by many doctors? Are they still available?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2274. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 18:23:41 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4027D02D.6DA8A82F@uci.edu>
Source record: 100300

Cecil Moore wrote:
>
> Jim Kelley wrote:
>
> > From: "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org>
> >>2 amps added in phase with 2 amps equals 4 amps flowing
> >>in the same direction.
> >
> > You mean both directions. AC doesn't flow in just one direction. That
> > would be DC.
>
> Instantaneous, Jim, instantaneous.

You say that as if you understood what it means. :-)

> AC flows in one direction for 1/2 cycle
> and flows in the opposite direction for the other 1/2 cycle.

Oh. I always thought it was the other way around. :-)

> A 2 amp phasor
> at zero degrees added to a 2 amp phasor at zero degrees equals 4 amps at
> zero degrees, flowing in the same instantaneous direction as the instantaneous
> phasor components. When the two component phasors are at 180 degrees, they
> and their sum are flowing in the opposite direction.

So what?

73, Jim AC6XG

2275. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 18:26:13 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4027D0C5.E186853@uci.edu>
Source record: 100299

Cecil Moore wrote:

> Here's what the standing
> wave current looks like when it is not frozen in time. That's the topic of
> discussion that everyone seems to want to avoid. Standing waves don't stand
> still. They probably should have been called "looping waves".
>
> http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html

I guess that kind of thing can be exciting for the unitiated. Good for
you, Cecil!

73, Jim AC6XG

2276. Re: Need advice: 6M beacon antenna at 10K ft

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 18:28:04 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <JNmdnf_u96mqTLrdRVn-tw@comcast.com>
Source record: 100298

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:11508-4026B0E6-112@storefull-3258.bay.webtv.net...
> A single folded dipole is often wrapped into a halo shape with a small
> gap between its ends for omnidirectional service and greater simplicity
> than the turnstile. Capacitor plates are often added to the
> short-circuited ends of the folded dipole to increase the capacitance
> between its ends and thus improve current distribution which improves
> pattern circularity. An array of such halos in a vertical stack can
> provide gain by concentrating energy into a horizontal beam.
> .....

Richard,

For what it is worth, I ran EZNEC on a Squalo type 1/2 wave 6m antenna at 20 and 40 feet elevation. I made no attempt at matching or capacitive loading. The gap at the ends was 2 inches.

1. Impedance at resonance was 10 Ohms. Reasonable for a 1:4 (12.5 : 50) balun. I mention this, because it would be more rugged than a gamma match.

2. The azimuth plot was an ellipse, with a gain variation of 3 db between the major and minor axis. Presumably capacitive loading would help this.

3. At 20 feet the lowest vertical lobe was at 14 degrees. At 40 feet, the lowest vertical lobe was at 7 degrees, and it had many more lobes. I would expect the M Squared antenna to have the same vertical, but not horizontal, pattern.

Tam/WB2TT

2277. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 18:39:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027d4a5_6@corp.newsgroups.com>
Source record: 100301

Richard Clark wrote:
> I noticed you do not retract your statement but whine about analysis
> Tsk, Tsk

Nothing to retract, Richard. The direction of AC current flow is merely a convention. In a balanced transmission line system, if the differential current is flowing toward the load in one wire, it is flowing away from the load in the other wire. Otherwise, it would be common-mode current. At certain times during the RF cycle, the forward current phasor and the reflected current phasor in one wire are both pointed toward the load. In the other wire, they are pointed toward the source. 1/2 cycle later, things are reversed.

Draw a DC circuit with a battery and a load. In one wire, the load current is flowing toward the load. In the other wire, the load current is flowing away from the load toward the battery. So we reference the wire connected to the '+' battery terminal which is carrying the current toward the load and call the other wire a return path. But balanced AC has no such distinction. There is no positive terminal or negative terminal on the AC generator except by convention. Incidentally, Edison shared your confusion.

Taking the RF generator as the reference, a freeze-frame snapshot of the RF current maximum points up and down a matched balanced transmission line may result in:

```
->----------<----------->----------<----------->-
Source Load
-<----------->----------<----------->----------<-
```

--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2278. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 18:39:36 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4027D3E8.24CFEB13@uci.edu>
Source record: 100304

Reg Edwards wrote:
> What I find so intriguing is what the 'taper proponents' intend to do with
> the 'taper' data when at last they have it in the form of numbers?

Taper "data"? I think the dispute is over the theoretical and the
philosophical. And of the pictures describing the phenomenon.

73, Jim AC6XG

2279. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 18:43:14 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027d596_6@corp.newsgroups.com>
Source record: 100302

Jim Kelley wrote:

> Cecil Moore wrote:
>>A 2 amp phasor
>>at zero degrees added to a 2 amp phasor at zero degrees equals 4 amps at
>>zero degrees, flowing in the same instantaneous direction as the instantaneous
>>phasor components. When the two component phasors are at 180 degrees, they
>>and their sum are flowing in the opposite direction.
>
> So what?

So sometimes those two phasors are forward current and reflected current
flowing in opposite directions. The statement is still true. Think about
that for awhile.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2280. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 18:44:45 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027d5f1_6@corp.newsgroups.com>
Source record: 100303

Jim Kelley wrote:

>
> Cecil Moore wrote:
>>Here's what the standing
>>wave current looks like when it is not frozen in time. That's the topic of
>>discussion that everyone seems to want to avoid. Standing waves don't stand
>>still. They probably should have been called "looping waves".
>>
>>http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
>
> I guess that kind of thing can be exciting for the unitiated. Good for
> you, Cecil!

So much for some people I know who assert, "Standing waves don't move." :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2281. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 19:05:55 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4027DA13.2C59FC4B@uci.edu>
Source record: 100307

Cecil Moore wrote:
>
> Jim Kelley wrote:
>
> > Cecil Moore wrote:
> >>A 2 amp phasor
> >>at zero degrees added to a 2 amp phasor at zero degrees equals 4 amps at
> >>zero degrees, flowing in the same instantaneous direction as the instantaneous
> >>phasor components. When the two component phasors are at 180 degrees, they
> >>and their sum are flowing in the opposite direction.
> >
> > So what?
>
> So sometimes those two phasors are forward current and reflected current
> flowing in opposite directions. The statement is still true. Think about
> that for awhile.

If I didn't understand the difference between the instantaneous value of
an alternating current, and the direction of propagation of a wave, who
knows what I might come up with given these details. I might even come
up with a notion like yours! ;-)

73, Jim AC6XG

2282. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 19:08:27 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4027DAAB.5F1BFF0F@uci.edu>
Source record: 100306

Cecil Moore wrote:
>
> Jim Kelley wrote:
>
> >
> > Cecil Moore wrote:
> >>Here's what the standing
> >>wave current looks like when it is not frozen in time. That's the topic of
> >>discussion that everyone seems to want to avoid. Standing waves don't stand
> >>still. They probably should have been called "looping waves".
> >>
> >>http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
> >
> > I guess that kind of thing can be exciting for the unitiated. Good for
> > you, Cecil!
>
> So much for some people I know who assert, "Standing waves don't move." :-)

So much for people who don't understand the difference between current
flow, and wave propagation. :-)

73, Jim AC6XG

2283. Antenna Specs / Dimensions: Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 19:16:52 UTC
From: Chay <caatalyst@comcast.net>
Message-ID: <pYSdnQoLya4URrrdRVn-uA@comcast.com>
Source record: 100305

Hello All:

I need help with the actual specs and dimensions for a number of antennas. I have tried some antenna design (variant of NEC) but for whatever reason, the software never finishes the calculations. I looked at a whole bunch of software, but they were all out of my price range.

1. Require specs and dimensions for a high gain (15db+) Yagi/Uda for Tx/Rx on 880 through 960 Mhz
Yagi/Uda for Tx/Rx on 2400

2. Require specs and dimensions for a Horn antenna for Tx on 880 through 960 Mhz. (Rectangular Section)
Horn Antenna for Tx on 2400 Mhz
Especially on placement of "radiator" from side and rear walls.

3. Require specs and dimensions for a Parabolic Grid antenna for Tx/Rx on 880 through 960 Mhz
Parabolic Grid antenna for Tx/Rx on 2400Mhz and 5800 Mhz

I know this is a tall order but all help would be most welcome.

Thanks

Chay.

2284. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 19:30:38 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4027DFDE.27070BEA@uci.edu>
Source record: 100310

W4JLE wrote:
> One can NOT see a
> standing wave, whereas one may be computed from the observations.

Standing waves are in fact the observable result of the superposition of traveling waves. Interferometers are devices which function because of the fact that standing wave interference patterns are observable. Radio interferometers allow us to do radio astronomy with improved spacial resolution. We most certainly can see standing waves.

73, Jim AC6XG

2285. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 19:37:31 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402091137.517e41e7@posting.google.com>
Source record: 100308

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<10437-4027885D-2@storefull-3251.bay.webtv.net>...
> Dr. Slick wrote:
> "Err, Cecil, dQ/dt is zero at the voltage nodes."
>
> dQ/dt is the rate of change in electrical charge with respect to time.
>
> Charge moves in synch the applied voltage in a resistance. So, a
> sinusoidal voltage node is a point in the cycle where the voltage has
> zero amplitude, and so does the current. dQ/dt is hardly zero at zero
> crossings of the a-c waveform.
>

It most certainly is. dQ/dt=0 at the voltage maxima and minima
(or the + and - peaks of the voltage).

Likewise, the voltage is always zero at the point where the peak
current occurs.

This is all assuming an infinity:1 mismatch, or full reflections.

S.

2286. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 19:44:46 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402091144.f7774a7@posting.google.com>
Source record: 100309

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4027a0a5_6@corp.newsgroups.com>...
> Richard Harrison wrote:
> > Cecil is getting at the effective value of an a-c waveform which is rms.
> > Slick and Cecil are talking about two different things.
>
> I was a little sleepy when I wrote that. It didn't occur to me until
> later that Slick can also use dQ/dt = 0 over a complete cycle to prove
> that the average value of any AC current is zero, not just at a voltage
> node. Hence the necessity for RMS values for AC.
>

That's not what i meant. I mean that with full reflections, there
will be nodes space 1/2 wavelengths apart that will have 0 RMS AC
current. These points will coincide with the absolute peak voltages
that occur on the line.

> If Slick can tell a forward wave from a traveling wave by taking one and
> only one current measurement at one point on a transmission line, and
> knowing nothing else about the system, he is a better man than I.

More of your TRULY confusing terminology! It really helps you
cloud the
argument, doesn't it! Unfortunately, if you don't understand someone,
it usually means they are full of sh**!

A forward wave is a traveling wave, traveling forward.

If you give me the Max RMS AC current, and the Min RMS current, i
can most certainly tell you what the SWR is.

S.

2287. Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 19:52:07 UTC
From: P N P <jck54@mcmedia.com.au>
Message-ID: <4026cac3$1@news.leadingedgeinternet.net.au>
Source record: 100253

Could someone direct me to a site that would show me how to build a balun
for my long wire antenna to allow me the use of 50 ohm cable down to the
receiver ?
T.I.A.
John

2288. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 20:14:50 UTC
From: Dave <noone@nowhere.com>
Message-ID: <29mdnTXCyq_cd7rdRVn_iw@crocker.com>
Source record: 100311

"Jim Kelley" <jwkelley@uci.edu> wrote in message
news:4027DFDE.27070BEA@uci.edu...
> W4JLE wrote:
> > One can NOT see a
> > standing wave, whereas one may be computed from the observations.
>
> Standing waves are in fact the observable result of the superposition of
> traveling waves. Interferometers are devices which function because of
> the fact that standing wave interference patterns are observable. Radio
> interferometers allow us to do radio astronomy with improved spacial
> resolution. We most certainly can see standing waves.
>
> 73, Jim AC6XG

being able to 'see' them is how they got their name. you could run a neon bulb or other voltage or current detector along an open wire line and 'see' the standing wave voltage and current peaks and nulls... that was of course in the days before they would have warned you to stay far, far away from sources of rf exposure like that.

2289. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 20:23:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027ed27$1_3@corp.newsgroups.com>
Source record: 100313

Dr. Slick wrote:
> A forward wave is a traveling wave, traveling forward.
>
> If you give me the Max RMS AC current, and the Min RMS current, i
> can most certainly tell you what the SWR is.

That's two measurements which violates the challenge. Given one and only one current reading, is the current traveling or standing? The fact that you cannot tell the difference means the two currents possess the same nature, i.e. magnitude, phase, and direction.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2290. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 20:27:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027ee01_3@corp.newsgroups.com>
Source record: 100315

Jim Kelley wrote:
> So much for people who don't understand the difference between current
> flow, and wave propagation. :-)

I've been talking about electron current flow, Jim, I don't recall
making any assertions about wave propagation. Waves and currents are
associated but are quite different things. Since the waves travel
at the speed of light, I assume photons are involved.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2291. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 20:28:28 UTC
From: tdonaly@aol.com
Message-ID: <20040209152828.14252.00000387@mb-m01.aol.com>
Source record: 100314

```
Cecil wrote,
>
>Jim Kelley wrote:
>
>>
>> Cecil Moore wrote:
>>>Here's what the standing
>>>wave current looks like when it is not frozen in time. That's the topic of
>>>discussion that everyone seems to want to avoid. Standing waves don't stand
>>>still. They probably should have been called "looping waves".
>>>
>>>http://einstein.byu.edu/~masong/HTMstuff/sinewave2EX.html
>>
>> I guess that kind of thing can be exciting for the unitiated. Good for
>> you, Cecil!
>
>So much for some people I know who assert, "Standing waves don't move." :-)
>--
>73, Cecil http://www.qsl.net/w5dxp
>

They change but they don't move.
73,
Tom Donaly
```

2292. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 20:29:36 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4027EDB0.703EDF46@uci.edu>
Source record: 100318

Cecil Moore wrote:

> Waves and currents are
> associated but are quite different things.

That's what I've been saying. Make sure you remember and apply that concept when you're talking about 'direction'.

73, Jim AC6XG

2293. Help, Digital TV UHF antenna needed for 21-69 channels

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 20:30:44 UTC
From: ja <notworking@mail.adr>
Message-ID: <c08q86$4is$1@phys-news1.kolumbus.fi>
Source record: 100312

Hi,
I just bought digital Terrestial receiver for TV and I need to build antenna for that. I live in an area with common antenna for several houses.
Unfortunately digital channels are not delivered via this wire.

Could someone provide instructions to build antenna for UHF channels 21-69, actually channels 23 (490 MHz), 34 (578 MHz) and 58 (770 MHz) are needed. It would be nice if materials were such that are found from house, foil, electric wire, 75 ohm. coax, wood....

Broadcastin TV antenna is in dist. 25 km.
- jyrki

2294. Re: Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 20:33:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027ef6d$1_3@corp.newsgroups.com>
Source record: 100316

Theplanters95 wrote:
> I am thing of putting up a loop antenna in my backyard. The diminsions are 34'
> by 50' giving me a total loop of 168 feet. How will this antenna work on
> 80-10m if feed with 450 ladder line and about 10'-20' off the ground. On 80m I
> am primarly interested in nvis, and on 20m-10m, dx.

Hi Randy, it should do a reasonable job. 20' high would be better than 10'.
30' would be better than 20' on 20m.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2295. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 20:39:02 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4027f0ba$1_3@corp.newsgroups.com>
Source record: 100317

Tdonaly wrote:
> They change but they don't move.

Maybe it's relativity in action. The current stands
still and the earth moves around it?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2296. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 20:58:27 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402091258.68369c9e@posting.google.com>
Source record: 100169

"Massi" <msignorini@calearotlc.com> wrote in message
news:<c07uen$ee5$1@fata.cs.interbusiness.it>...
> Hi to everybody,
> I got the VSWR of an antenna from a Vector Analyzer and I'd like to know
> (and how) if is possible to calculate the Quality Factor from it.
> Thanks,
> Massimo

You mean the "Q" of the antenna, or how narrow or broad-band it
is.

I would do it like this:

1. Place a short or an open at the end of the test cable,
where the antenna is placed. Measure the return loss in dB, at the
center frequency of interest. This will be the return loss that will
include the losses of the cable too (ideally, it will be pretty close
to 0dB). Let's call this the RLshort.

2. Replace the antenna, and then find the upper and lower
frequencies (immediately off of the center frequency, F_upper and
F_lower) where the
return loss is = RLshort - 3dB.

3. The "Q" of the antenna would be
Fcenter/(F_upper-F_lower).

This all assumes a decently lossless antenna, mind you.

As you can see, it's easier to do this if you change the
measurement from VSWR to Return Loss on your network analyzer.

Dr. Slick

2297. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 21:10:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <92tf20p6rfhhqpe9iafrn3u9i2q0haec78@4ax.com>
Source record: 100170

On 09 Feb 2004 20:28:28 GMT, tdonaly@aol.com (Tdonaly) wrote:
>They change but they don't move.
>73,
>Tom Donaly

Gads Tom,

That will have him putting on his Galileo masquerade next. ;-)

I'm still waiting for that act where Cecileo drops his balls off the
Tower of Pisa.

I can anticipate the Cecilean logic now:
The balls, falling, traverse half the distance in half the time;
hence with each half of the remaining distance, half that time;
as there is always half the distance to go, they never hit;
ergo gravity does not exist!
If gravity does not exist, no test need be performed
(followed by 600 posts about the current in the Tiber).

[note: there is more than one error in this; however, I would just as
soon see which of his balls drops the farthest even if they don't hit
the ground.]

73's
Richard Clark, KB7QHC

2298. Re: Help, Digital TV UHF antenna needed for 21-69 channels

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 21:11:25 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <sjtf20to3t9hj27u93gtc7rg6nmvql97qh@4ax.com>
Source record: 100172

On Mon, 9 Feb 2004 22:30:44 +0200, "ja" <notworking@mail.adr> wrote:

>Hi,
>I just bought digital Terrestial receiver for TV and I need to build
>antenna for that. I live in an area with common antenna for several
>houses.
>Unfortunately digital channels are not delivered via this wire.
>
>Could someone provide instructions to build antenna for UHF
>channels 21-69, actually channels 23 (490 MHz), 34 (578 MHz) and 58 (770
>MHz) are needed. It would be nice if materials were such that are found
>from house, foil, electric wire, 75 ohm. coax, wood....
>
>Broadcastin TV antenna is in dist. 25 km.
>- jyrki
>

Won't an ordinary UHF tv antenna for channels 14-69 work? I'm not sure
whether the receiver is digital or analogue would call for anything
special. RF is RF.

Bob
k5qwg

2299. Re: Yagi height and tower recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 21:14:47 UTC
From: Phil <phil.bradway@verizon.net>
Message-ID: <bLSVb.22145$IF1.3534@nwrdny03.gnilink.net>
Source record: 100171

ARRL has a nice discussion on height/efficiency, put together as a tool in
fighting antenna ordinances.
http://www.arrl.org/FandES/field/regulations/local/antplnr.pdf.

60 feet is a good place to start.

Phil, KB2HQ

"Bill Grimwood" <bill@grimwood.net> wrote in message
news:102fj00tnpeuad9@corp.supernews.com...
> I am condidering putting up a tower and what is the recommended height for
a
> 20 m yagi. Also I want a fold down tower, do you have some brand and
model
> recomendations. I do not know anyone who has one.
>
> 73
>
>
> Bill
> W4WEG
>
>

2300. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 21:18:42 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4027F932.185BD17F@uci.edu>
Source record: 100175

Richard Clark wrote:
> I can anticipate the Cecilean logic now:
> The balls, falling, traverse half the distance in half the time;
> hence with each half of the remaining distance, half that time;
> as there is always half the distance to go, they never hit;
> ergo gravity does not exist!
> If gravity does not exist, no test need be performed
> (followed by 600 posts about the current in the Tiber).

And if recent history is any indicator, half the posts would be from
you, contributing virtually nothing to the discussion.

2301. Need Help: Rohn 25 Clean up..

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 21:20:40 UTC
From: hml59@yahoo.com
Message-ID: <ceb725be.0402091320.79af3874@posting.google.com>
Source record: 100173

Hi there,
I recently acquired used Rohn 25 locally..
1. There are some rust, what is your recommendations?? Sandpaper &
Rustolium paint from Home Depot??
2. All bolts and nuts were missing.. What is the best source to get
them?? Stainless or hot treated(?) one?? What is the size of them??

Appreciate your help, please...
Scott

2302. Re: Help, Digital TV UHF antenna needed for 21-69 channels

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 21:41:46 UTC
From: ja <notworking@mail.adr>
Message-ID: <c08ude$9v9$1@phys-news1.kolumbus.fi>
Source record: 100174

Yes, You're right. But I have not antenna like that and I thought to
build one fast.
- jyrki

"Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
news:sjtf20to3t9hj27u93gtc7rg6nmvql97qh@4ax.com...
> On Mon, 9 Feb 2004 22:30:44 +0200, "ja" <notworking@mail.adr> wrote:
>
> Won't an ordinary UHF tv antenna for channels 14-69 work? I'm not sure
> whether the receiver is digital or analogue would call for anything
> special. RF is RF.
>
> Bob
> k5qwg
>
>

2303. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 21:47:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402800df$1_2@corp.newsgroups.com>
Source record: 100177

Jim Kelley wrote:
>
> Cecil Moore wrote:
>>Waves and currents are
>>associated but are quite different things.
>
> That's what I've been saying. Make sure you remember and apply that
> concept when you're talking about 'direction'.

All I've talked about, Jim, is the direction of current flow. The bottom line for you is, EZNEC doesn't display a real-time plot of antenna current as you first thought. An antenna's current changes phase every 1/2 cycle. EZNEC's current display is referenced to the source current at zero degrees and nowhere else.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2304. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 21:48:39 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040209164839.28408.00001869@mb-m01.aol.com>
Source record: 100176

>
>How about all the people who once swore by diathermy treatments
>offered by many doctors? Are they still available?
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

I dunno. Ask them?
I am using magnetothermia and it helps.

Yuri

2305. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 22:00:50 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40280312.FAABD4DC@uci.edu>
Source record: 100181

Cecil Moore wrote:
>
> Jim Kelley wrote:
> >
> > Cecil Moore wrote:
> >>Waves and currents are
> >>associated but are quite different things.
> >
> > That's what I've been saying. Make sure you remember and apply that
> > concept when you're talking about 'direction'.
>
> All I've talked about, Jim, is the direction of current flow.

Right. But some of the things you've been saying about it are
incorrect.
I've been pointing them out in this thread.

> The bottom
> line for you is, EZNEC doesn't display a real-time plot of antenna current
> as you first thought.

??? I've never even expressed an opinion about EZNEC.

73, Jim AC6XG

2306. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 22:00:53 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402803ea_2@corp.newsgroups.com>
Source record: 100178

Dr. Slick wrote:
> Hint: In a standing wave ratio, there is still the flow of
> coulombs, but it's more like they are sloshing back and forth (AC)
> between the high voltage nodes.

And here's a hint for you: Assume two phase-locked lasers are pointed
at each other. Such a configuration will exhibit standing waves where
all the energy is contained in the electric field at some points and
1/2WL away, all the energy is contained in the magnetic field.

Do you really expect anyone to believe that given two interfering beams
of light, that the combined energies in those two light beams "are sloshing
back and forth" between the points where the net electric field equals
zero. Pray tell, what physical phenomenon is causing all those reflections?

Hint: Your assertion has been proven wrong by numerous experiments with lasers.
It is no more true for transmission lines than it is for lasers. The two beams
of light are "transparent" to each other just as forward current is transparent
to reflected current. The coherent waves traveling in opposite directions have
absolutely no effect on each other until they encounter a common discontinuity.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2307. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 22:05:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lr0g205d1ueoj662um8d445fo8r12bd4fb@4ax.com>
Source record: 100179

On Mon, 09 Feb 2004 13:18:42 -0800, Jim Kelley <jwkelley@uci.edu>
wrote:

>Richard Clark wrote:
>> I can anticipate the Cecilean logic now:
>> The balls, falling, traverse half the distance in half the time;
>> hence with each half of the remaining distance, half that time;
>> as there is always half the distance to go, they never hit;
>> ergo gravity does not exist!
>> If gravity does not exist, no test need be performed
>> (followed by 600 posts about the current in the Tiber).
>
>And if recent history is any indicator, half the posts would be from
>you, contributing virtually nothing to the discussion.
You forget the entertainment factor - there is nothing in this thread
beyond the first three posts that have elevated this beyond
vaudeville. Glad to see you trying to wrest the percentage tho'

73's
Richard Clark, KB7QHC

2308. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 22:15:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4028075a$1_2@corp.newsgroups.com>
Source record: 100180

Richard Clark wrote:
> I can anticipate the Cecilean logic now:
> The balls, falling, traverse half the distance in half the time;
> hence with each half of the remaining distance, half that time;
> as there is always half the distance to go, they never hit;
> ergo gravity does not exist!

Actually, that's your logic, Richard. The math model dictates reality
and therefore, the balls will never hit the ground. I, OTOH, have a
better grasp of reality than to believe math models dictate reality.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2309. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 22:25:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3t1g20hq60sg32nbqn7h1c6d7pih10bdom@4ax.com>
Source record: 100182

On Mon, 09 Feb 2004 16:00:53 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> light beams "are sloshing back and forth"
Exactly how lasers work.
>between the points where the net electric field equals zero.
Exactly where they work.
>what physical phenomenon is causing all those reflections?
They are called "mirrors." And they are set at the Brewster Angle.
It is impossible to remove them from the system if both beams are
boresight aligned.

2310. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 22:31:03 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c091n8$8has$1@news3.infoave.net>
Source record: 100183

You are observing the result of the destructive or constructive interference. The standing wave, is still an abstraction used to define it.

We can't even get folks to agree whether current flows from positive to negative, or negative to positive. and guess what, it doesn't matter.

The whole thing is just a figment that allows us to explain phenomena in a rational manner. That is until the Clintonistas among us want to argue the meaning of what is IS.

90% of the bandwidth in this forum is used by this kind of nonsense. While it serves the ego of the proponents of their pet theory, it does nothing to impart knowledge to the group.

I am sure, if I met Cecil in person, I would really enjoy being around him. His hobby on the internet is debate, he creates the premise, and offers up information that is designed to encourage a person to take a direction already determined by Cecil. He then sets back and plays semantics games untill you lose the debate by frustration.

With a tip of the hat to "WHOPPER" -"The only way to win, is not to play the game..."

73 to you as well Sir
Fred W4JLE

"Jim Kelley" <jwkelley@uci.edu> wrote in message
news:4027DFDE.27070BEA@uci.edu...
> W4JLE wrote:
> > One can NOT see a
> > standing wave, whereas one may be computed from the observations.
>
> Standing waves are in fact the observable result of the superposition of
> traveling waves. Interferometers are devices which function because of
> the fact that standing wave interference patterns are observable. Radio
> interferometers allow us to do radio astronomy with improved spacial
> resolution. We most certainly can see standing waves.
>
> 73, Jim AC6XG

2311. FS: TOWER MANUAL, TRI-EX LM470

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 22:32:39 UTC
From: dt <NOSPAM@nospam.net>
Message-ID: <1k2g20hif4ueptg5kpdgt4ds8hoh5mo2sr@4ax.com>
Source record: 100184

FS: TOWER MANUAL, TRI-EX LM470
Complete manual for Tri-Ex LM470 72' motoroized tower. This is a copy
of the oriiginal, good quality on 8x11, approximately 70 pages.Has
specs and drawings for base, tilt-over assembly, tower, motor
controls, cabling, etc. $20 shipped anywhere in USA.
73
Dan
remove the NOSPAM: NOSPAMk0dan@arrl.net

2312. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 22:35:01 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40280B15.660AB7B8@uci.edu>
Source record: 100186

W4JLE wrote:
> I am sure, if I met Cecil in person, I would really enjoy being around him.

I quite agree.

73, Jim AC6XG

2313. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 22:45:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k93g209k40ld4h4rt3o8mvahi37cf8k8ei@4ax.com>
Source record: 100185

On Mon, 09 Feb 2004 16:15:34 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>I, OTOH, have a
>better grasp of reality
That doesn't answer the Challenge: which of your balls will hit the
ground first?

2314. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:11:11 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4028138F.336396AD@uci.edu>
Source record: 100191

Cecil Moore wrote:
> A 2 amp phasor
> at zero degrees added to a 2 amp phasor at zero degrees equals 4 amps at
> zero degrees, flowing in the same instantaneous direction as the instantaneous
> phasor components.

Above lies the semantic nonsense. You've got 2 amps, alternating in
both directions, plus another two amps that alternate in both
directions, which equals 4 amps alternating in both directions. The
number 4 is only true at a particular location and instant of time.

> When the two component phasors are at 180 degrees, they
> and their sum are flowing in the opposite direction.

Semantic nonsense, plus Pi radians.

73, Jim AC6XG

2315. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:14:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40281521_7@corp.newsgroups.com>
Source record: 100188

Jim Kelley wrote:
> ??? I've never even expressed an opinion about EZNEC.

No, but you expressed an opinion about the graphics I posted after
capturing them in EZNEC. Remember, after you commented on them ,I
said I hope you didn't teach those concepts to your students?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2316. Re: Need Help: Rohn 25 Clean up..

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:15:16 UTC
From: Rich <wildcat56@netscape.net>
Message-ID: <102g542l1e8ntfe@corp.supernews.com>
Source record: 100187

Scott:
I use cold galvanize from LPS. It comes in a spray can and many hardware stores carry it. Also galvanized nuts and galvanized Grade 5 bolts should be used to secure your tower sections together. Stainless steel bolts will also work but are quite spendy. I have heard that bolts should never be reused when reinstalling a tower but no one has satisfactorily explained why to me.

Another treatement for rust is Duro Extend which can be purchased at many auto parts stores. It chemically treats the rust and stops it.

Good luck and 73's
Dick K7RNZ

Scott wrote:
> Hi there,
> I recently acquired used Rohn 25 locally..
> 1. There are some rust, what is your recommendations?? Sandpaper &
> Rustolium paint from Home Depot??
> 2. All bolts and nuts were missing.. What is the best source to get
> them?? Stainless or hot treated(?) one?? What is the size of them??
>
> Appreciate your help, please...
> Scott

2317. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:15:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40281570$1_7@corp.newsgroups.com>
Source record: 100189

Richard Clark wrote:
> They are called "mirrors."

There's nothing physical there. Are they virtual mirrors?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2318. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:17:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402815f8$1_7@corp.newsgroups.com>
Source record: 100190

Jim Kelley wrote:

> W4JLE wrote:
>>I am sure, if I met Cecil in person, I would really enjoy being around him.
>
> I quite agree.

You guys come on over to East Texas for free beer and pizza.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2319. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:31:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c09596ren1@sparta.btinternet.com>
Source record: 100192

> 90% of the bandwidth in this forum is used by this kind of nonsense.

==========

99% is a more accurate estimate.

2320. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:34:00 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <INUVb.21672$uM2.2384@newsread1.news.pas.earthlink.net>
Source record: 100193

"W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
news:c04ckv$66ga$1@news3.infoave.net...

> 4.
> One can NOT see a
> standing wave, whereas one may be computed from the observations.
>

Umm, then how does a slotted line work to show SWR?

2321. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:37:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c095jn$sc5$1@sparta.btinternet.com>
Source record: 100194

Sec sez -
> You guys come on over to East Texas for free beer and pizza.

==========

What! No red wine, no mature cheese!

2322. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:41:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c095rv$c6s$1@titan.btinternet.com>
Source record: 100195

> Umm, then how does a slotted line work to show SWR?
>
==========

Only by cooking the books.

2323. Re: Need Help: Rohn 25 Clean up..

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:52:57 UTC
From: Phil <phil.bradway@verizon.net>
Message-ID: <t3VVb.22777$IF1.3938@nwrdny03.gnilink.net>
Source record: 100196

I used the "Extend" after scraping off the loose stuff with a wire brush. A coat of gray machine tool rust formula paint followed (local hdw store). Tower looks great after 7 years. Also used the galvanized bolts, nuts and lock washers.

Phil, KB2HQ

"Rich" <wildcat56@netscape.net> wrote in message news:102g542l1e8ntfe@corp.supernews.com...
> Scott:
> I use cold galvanize from LPS. It comes in a spray can and many hardware
> stores carry it. Also galvanized nuts and galvanized Grade 5 bolts
> should be used to secure your tower sections together. Stainless steel
> bolts will also work but are quite spendy. I have heard that bolts
> should never be reused when reinstalling a tower but no one has
> satisfactorily explained why to me.
>
> Another treatement for rust is Duro Extend which can be purchased at
> many auto parts stores. It chemically treats the rust and stops it.
>
> Good luck and 73's
> Dick K7RNZ
>
>
> Scott wrote:
> > Hi there,
> > I recently acquired used Rohn 25 locally..
> > 1. There are some rust, what is your recommendations?? Sandpaper &
> > Rustolium paint from Home Depot??
> > 2. All bolts and nuts were missing.. What is the best source to get
> > them?? Stainless or hot treated(?) one?? What is the size of them??
> >
> > Appreciate your help, please...
> > Scott
>

2324. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:54:36 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40281DBC.DA828131@uci.edu>
Source record: 100204

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > ??? I've never even expressed an opinion about EZNEC.
>
> No, but you expressed an opinion about the graphics I posted after
> capturing them in EZNEC. Remember, after you commented on them ,I
> said I hope you didn't teach those concepts to your students?

Nope. You haven't used that insulting remark in any of your
correspondence since last summer.

73, Jim AC6XG

2325. Surge Protector ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:54:45 UTC
From: americanflag9190 <p.praskac@DIESPAMBOTSworldnet.att.net>
Message-ID: <95VVb.453$hR.10699@bgtnsc05-news.ops.worldnet.att.net>
Source record: 100197

If I run an antenna"s coax through a surge protector's coax protector then to my rig would that do anything?

2326. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:55:37 UTC
From: wizard12342002@yahoo.com
Message-ID: <a3232cc0.0402091555.9745d4d@posting.google.com>
Source record: 100198

I was thinking about a possible solution to this type of problem, and would like some feedback on it. Since the current in the random wire should be approximately equal and opposite to the current in the tuned ground line, why not use a 10 foot(or so) length of coax, balanced line, or twisted pair for the antenna and ground for the first ten feet from the tuner, and separate the wires beyond that? Shouldn't this approach reduce the radiation close to the operator?

- JJ

2327. Re: need to change radiator size

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:56:36 UTC
From: Luddite <a2k@ripco.com>
Message-ID: <c096nk$jg6$1@e250.ripco.com>
Source record: 100199

Stephen Cowell <scowell@sbcglobal.net> wrote:

> "Dale Parfitt" <par@parelectronics.com> wrote in message
> news:J2DVb.320$6i.103@nwrddc02.gnilink.net...
>>
>> "Luddite" <a2k@ripco.com> wrote in message
>> news:c06f2k$j26$1@e250.ripco.com...
>> >
>> > I have this parabolic dish that it supposed to be cut for 2.5-2.6 ghz
>> > and would like to make another feed the same shape for 2.45 ghz.
>> > here is a picture, http://pages.ripco.net/~a2k/radiator.jpg
>> > its dimensions are 100x86mm, anyone know the formula for the size
>> > of this type of feed or what its called?
>>
>> A parabolic surface is not "cut" for any frequency- it is frequency
>> independent as long as surface errors are tolerable at the highest
> frequency
>> of interest. . If the current feed has decent specs (i.e. return loss,
>> efficiency, F/D) at 2.5 GHz, it will be fine at 2.45 GHz.

> The question is kinda confusing, I know... but
> the picture references a feed, not a dish.

> Looks like a dipole feed... perhaps lengthen the dipole
> arms?
> __
> Steve
> KI5YG

here is a new picture

http://pages.ripco.net/~a2k/parabolic-feed.jpg

There is only the one element fed by a 3 foot pigtail of 9913.
the plan was to change it to rg-174 or .141 hardline and attach
a USB wifi device to the rear,and add the correct sized feed.
or I might settle for less than its rated 21db gain.

2328. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:56:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <le7g2057bar0rpjbv085pj5714b16j83lr@4ax.com>
Source record: 100200

On Mon, 09 Feb 2004 17:15:40 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Richard Clark wrote:
>> They are called "mirrors."
>There's nothing physical there. Are they virtual mirrors?
No

2329. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:57:34 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c096pf$8jjj$1@news3.infoave.net>
Source record: 100201

Wine and cheese is for the faggoty French and those that aspire to be French
like the English woman on "Keeping up appearances".

Real men drink beer, eat pizza, 4 alarm chili, scratch their nuts and shoot
at creatures roaming the woods.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c095jn$sc5$1@sparta.btinternet.com...
> Sec sez -
> > You guys come on over to East Texas for free beer and pizza.
>
> ========================
>
> What! No red wine, no mature cheese!
>
>

2330. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:58:14 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40281E96.448FA27F@uci.edu>
Source record: 100205

W4JLE wrote:
>
> Wine and cheese is for the faggoty French and those that aspire to be French
> like the English woman on "Keeping up appearances".

:-) Hyacinth.

73, jk

2331. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-09 23:59:51 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c096to$8jo9$1@news3.infoave.net>
Source record: 100202

By measuring the points of destructive and constructive interference, and
refering to those points as the standing wave.

"John Smith" <jocjo-john@yooha.com> wrote in message
news:INUVb.21672$uM2.2384@newsread1.news.pas.earthlink.net...
>
> "W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
> news:c04ckv$66ga$1@news3.infoave.net...
>
> > 4.
> > One can NOT see a
> > standing wave, whereas one may be computed from the observations.
> >
>
>
> Umm, then how does a slotted line work to show SWR?
>
>

2332. Re: Need Help: Rohn 25 Clean up..

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 00:02:44 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c09738$8jpu$1@news3.infoave.net>
Source record: 100203

Bolts when torqued stretch, once stretched they can never be safely
re-torqued to the original specs.

"Rich" <wildcat56@netscape.net> wrote in message
news:102g542l1e8ntfe@corp.supernews.com...
> Scott:
> I use cold galvanize from LPS. It comes in a spray can and many hardware
> stores carry it. Also galvanized nuts and galvanized Grade 5 bolts
> should be used to secure your tower sections together. Stainless steel
> bolts will also work but are quite spendy. I have heard that bolts
> should never be reused when reinstalling a tower but no one has
> satisfactorily explained why to me.
>
> Another treatement for rust is Duro Extend which can be purchased at
> many auto parts stores. It chemically treats the rust and stops it.
>
> Good luck and 73's
> Dick K7RNZ
>
>
> Scott wrote:
> > Hi there,
> > I recently acquired used Rohn 25 locally..
> > 1. There are some rust, what is your recommendations?? Sandpaper &
> > Rustolium paint from Home Depot??
> > 2. All bolts and nuts were missing.. What is the best source to get
> > them?? Stainless or hot treated(?) one?? What is the size of them??
> >
> > Appreciate your help, please...
> > Scott
>

2333. Re: Help, Digital TV UHF antenna needed for 21-69 channels

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 00:22:59 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <102g937k2hno4aa@corp.supernews.com>
Source record: 100206

Go to your local Radio Shack/TV store and buy a UHF antenna. They come
in all sizes. Your landlord/building association can not prevent you
from installing the antenna unless they want to provide the digital
signal for you. FCC rules.

Dave Nagel

ja wrote:
> Hi,
> I just bought digital Terrestial receiver for TV and I need to build
> antenna for that. I live in an area with common antenna for several
> houses.
> Unfortunately digital channels are not delivered via this wire.
>
> Could someone provide instructions to build antenna for UHF
> channels 21-69, actually channels 23 (490 MHz), 34 (578 MHz) and 58 (770
> MHz) are needed. It would be nice if materials were such that are found
> from house, foil, electric wire, 75 ohm. coax, wood....
>
> Broadcastin TV antenna is in dist. 25 km.
> - jyrki
>
>

2334. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 00:31:44 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <102g9n83gnjoq45@corp.supernews.com>
Source record: 100207

Massimo
VSWR and Q have nothing to do with one another.
73
H.
NQ5H

"Massi" <msignorini@calearotlc.com> wrote in message
news:c07uen$ee5$1@fata.cs.interbusiness.it...
> Hi to everybody,
> I got the VSWR of an antenna from a Vector Analyzer and I'd like to know
> (and how) if is possible to calculate the Quality Factor from it.
> Thanks,
> Massimo
>
>

2335. Re: Yagi height and tower recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 00:40:47 UTC
From: Bill J <w3fi@nwboronet.com>
Message-ID: <GLVVb.279$xd5.8747@eagle.america.net>
Source record: 100208

I just put up a 45 foot Universal Aluminum foldover. Works fine.

Bill Grimwood wrote:

> I am condidering putting up a tower and what is the recommended height for a
> 20 m yagi. Also I want a fold down tower, do you have some brand and model
> recomendations. I do not know anyone who has one.
>
> 73
>
>
> Bill
> W4WEG
>
>

2336. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 02:24:44 UTC
From: P N P <jck54@mcmedia.com.au>
Message-ID: <402726c8$1@news.leadingedgeinternet.net.au>
Source record: 100271

The length is unknown at present, it runs up the trunk of a tree in the back yard then across the roof of the house - I could convert it to a Windom as have "length" to play with ?
"'Doc" <w5lz@cwis.net> wrote in message news:40272253.EB615CEF@cwis.net...
> John,
> No, I won't bother. A balun is unnecessary. Yhe
> so called 'longwire balun's aren't, really, but they
> seem to be a money maker for the manufacturers. Besides,
> isn't a long wire antenna unbalanced to start with?
> 'Doc

2337. Re: Need Help: Rohn 25 Clean up..

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 02:34:24 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <lqXVb.18820$gl2.4891@lakeread05>
Source record: 100209

"W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
news:c09738$8jpu$1@news3.infoave.net...
> Bolts when torqued stretch, once stretched they can never be safely
> re-torqued to the original specs.

The proper bolts and hardware are carried by Rohn dealers, and are
comparitively cheap.

Dealing with rust on the outside of the tower is fairly easy, but you should
verify that the inside of the legs are rust free. Towers can rust from the
inside out, which is extremely dangerous because it can go undetected
until the day it fails.

Pete

2338. Re: Surge Protector ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 02:36:23 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <HsXVb.2202$Yj6.1723@newssvr23.news.prodigy.com>
Source record: 100210
Body handling: HTML body converted to readable text

"americanflag9190" wrote in message
news:95VVb.453$hR.10699@bgtnsc05-news.ops.worldnet.att.net...
> If I run an antenna"s coax through a surge protector's coax protector then
> to my rig would that do anything?

I assume it would protect your antenna from
any attempts to transmit through it... they're not
made for wattage, at all. The ones that *are*,
are more expensive.

--
Steve
KI5YG
.

2339. Re: Surge Protector ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 02:42:08 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <BxXVb.18835$gl2.16201@lakeread05>
Source record: 100211
Body handling: HTML body converted to readable text

"americanflag9190" wrote in message
news:95VVb.453$hR.10699@bgtnsc05-news.ops.worldnet.att.net...
> If I run an antenna"s coax through a surge protector's coax protector then
> to my rig would that do anything?
>

For lightning protection?? No. You need to establish a common ground
point outside of the house before the coax cable enters the house.
Preferably
having the coaxial arrestors sharing the entry ground rod for the home's
electrical service.

2340. Re: Yagi height and tower recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 02:44:21 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <GzXVb.18840$gl2.4124@lakeread05>
Source record: 100212

" > > I am condidering putting up a tower and what is the recommended height
for
> a
> > 20 m yagi. Also I want a fold down tower, do you have some brand and
> model
> > recomendations. I do not know anyone who has one.
> >
> > 73
> >
> >
> > Bill
> > W4WEG
> >
> >

Rohn made some nice foldovers for the 25 and 45G series, but alas they dropped the product several years ago. Even worse, Rohn has filed bankruptcy..

Next best thing is a Hazer system, or one of the crank up towers.

Pete

2341. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 02:46:50 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <5hfg20luj69t0q1qsrosina7rq5lkn8s0t@4ax.com>
Source record: 100213

On Mon, 9 Feb 2004 17:22:28 +0100, "Massi" <msignorini@calearotlc.com>
wrote:

|
|> Do you have the R +jX data, or only VSWR?
|> |
|>
|
|I have also the Smith Chart and the R+jX data for every frequency (I'm
|working about between 10 MHz and 15 MHz)

For simple resonant antennas, (dipole for example) you can evaluate
the slope of reactance v. frequency and calculate Q.

Consider that the antenna has the properties of a series RLC circuit
with L and C as unknowns and R known. The antenna has a constant L and
C and the reactance you measure at any frequency is determined by
their sum.

By picking two frequencies, preferably spaced equally about the
resonant frequency, and setting up two equations with two unknowns you
can solve for L and C and then using the reactance of either,
calculate Q as X/R. You can use Excel's solver, Mathcad or brute force
to solve the equations.

Another related method is to use the following:

Let

t1 = deltaX / deltaF

t2 = t1 / (4 * pi)

Q = t2 * omega / R

Where:

deltaX = the reactance difference at two frequencies

and

deltaF = the difference between the two frequencies

omega = 2 * pi * Fres

In another posting on a different subject, Steve Best offered this:

Begin Quote

Near the antenna's resonance, a different method must be used to
determine antenna Q. One method is to determine Q from the antenna's
1/2 power impedance bandwidth as follows:

Q = 2 / BW

where BW is the bandwidth determined from the 1/2 power SWR points
where the ZO used to determine SWR is the antenna's feedpoint
resistance. The 1/2 power SWR is equal to 5.828.

Another method is to determine Q directly as follows:

Q = A (B + C)

where A = w / (2 R), w = 2 pi F

B = dX/dw

C = |X|/w

End Quote.

So contrary to other posts, VSWR and Q *are* related and you have all
of the data you need to make the calculation.

Wes Stewart N7WS

|

2342. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 02:49:37 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <5FXVb.2209$Vu6.635@newssvr23.news.prodigy.com>
Source record: 100214

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message
news:20040209164839.28408.00001869@mb-m01.aol.com...
> >
> >How about all the people who once swore by diathermy treatments
> >offered by many doctors? Are they still available?
> >--
> >73, Cecil http://www.qsl.net/w5dxp
> >
> >
>
> I dunno. Ask them?
> I am using magnetothermia and it helps.

Diathermy, or 'Violet Ray', is still used in
beauty schools and dermatologist's offices.
There are some skin diseases that respond
to UV...

--
Steve
.

2343. Mosley TT-31

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 03:11:39 UTC
From: "T.E.O" <rfmscpa@earthlink.net>
Message-ID: <LZXVb.19163$jH6.3109@newsread1.news.atl.earthlink.net>
Source record: 100215

Anyone heard of and/or have info on the Mosley TT-31 portable antenna?

2344. Re: need to change radiator size

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 03:27:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bajg20hpldi3559cr6835hst90tt7ren73@4ax.com>
Source record: 100216

On Mon, 9 Feb 2004 23:56:36 +0000 (UTC), Luddite <a2k@ripco.com>
wrote:

>
>here is a new picture
>
>http://pages.ripco.net/~a2k/parabolic-feed.jpg
>
>There is only the one element fed by a 3 foot pigtail of 9913.
>the plan was to change it to rg-174 or .141 hardline and attach
>a USB wifi device to the rear,and add the correct sized feed.
>or I might settle for less than its rated 21db gain.

Hi OM,

It is a dual element feed. You have what appear to be two quarterwave slots, one wavelength apart (probably for better position tolerancing). What you offer above actually explains nothing. Change out 9913 to what end? Even RG-58 over that length would serve. Attach a USB WiFi for what? To transceive?

Why don't you just try it and see what happens? Nothing gonna break and if it works that's the end of it. If it doesn't work, you have more problems than a 4% frequency shift.

73's
Richard Clark, KB7QHC

2345. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 03:33:18 UTC
From: Cambio <CAM@ripped.net>
Message-ID: <c09jdu$d0q$1@xuxa.iecc.com>
Source record: 100217
Cross-posted to: rec.audio.tech,rec.radio.amateur.antenna,rec.radio.broadcasting

My recollection of a turnstile antenna is two folded dipoles at 90 degrees
to each other.
See URL:
http://www.qsl.net/wb8erj/turnstile_antenna.htm

A search of radio shack catalog does not show one nor is it in the manual
lookup section
However there is a Lindsay turnstile at URL:
http://www.lindsayelec.com/fm88-108.html

Easily found by using Google -- the searchers friend

--
73- Cambio - Keyboard To You (:-)

2346. Re: messing with a car radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 04:03:56 UTC
From: mcalhoun@ksu.edu
Message-ID: <c09l7c$jjj@unix2.cc.ksu.edu>
Source record: 100218
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave

>> 1. What do I need to do/build the headphone connection? Can I put
>> something together using the car radio speaker wires?

>You can use the speaker wires, however, the audio used to feed the speakers
>will be amplified, and will probably overdrive your headphones. You'll need
>to find a way to match the headphones to the speaker output.

On the other hand, if you are using modern low-impedence headphones,
just attaching them across the speaker wires may work well enough.

Of course, you'd probably want to add a phone jack with an extra contact
to cut the speaker out of the circuit when the phone plug is inserted.
With a little thought, you might even be able to add a resistor or two
to adsorb some of the "extra" audio that went to the speaker.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2347. Re: Rotator recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 04:08:49 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <gilg201md8i60ps004ng65d0apips5l7d0@4ax.com>
Source record: 100119

On Mon, 9 Feb 2004 12:42:55 -0500, "Tarmo Tammaru"
<t-tammaru@home.com> wrote:

>
>"Howard" <mensch90249@yahoo.com> wrote in message
>news:v14d20het3uco6fmi0glfkq0svhfdljmua@4ax.com...
>> The HD73 would certainly handle the weight & windload for the setup
>> mentioned. However, it mounts to a rotor plate - don't know if there
>> is a mast mount for it like some of the Hy-Gain's I've seen. I have
>> an old HD73 and control box that isn't in use and I don't have a
>> projected need - if wanted by anyone here I'd let it go cheap.
>> Howard
>
>Howard,
>
>You must have thrown away your lower mast support. I rejuvenated my old
>HD73, and presently have it on a chimney mount with 1-3/8 Al pipe, holding
>up a 432 MHz antenna. Prior to that, the HD73 was for 20 years on a tubular
>Wilson tower, supporting a small tribander and a KLM 7 element 6m beam.
>
>Tam/WB2TT
>

Tam,
Picked this up second hand (sight unseen) along with a 6 foot roof
tower - one of those "too good a deal to pass up & I'll find a use
someday" deals. Ended up getting something I don't need, sounds like
the original owner must have pitched the lower mast support.

How long is your 432 antenna, even with a long boom the HD73 probably
doesn't even "work up a sweat" turning it 8-}

Howard KE6MAK

2348. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 04:09:39 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040209230939.21817.00001764@mb-m06.aol.com>
Source record: 100120

>
>Wine and cheese is for the faggoty French and those that aspire to be French
>like the English woman on "Keeping up appearances".
>
>Real men drink beer, eat pizza, 4 alarm chili, scratch their nuts and shoot
>at creatures roaming the woods.
>

Spit on sissy fractal antennas
and belch and fart, no?

2349. Wow Cecil!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 04:19:21 UTC
From: mustang <adrian@ratherbeflying.net>
Message-ID: <40285c02$1_2@news.chariot.net.au>
Source record: 100121

Well that is indeed food for thought thanks Cecil! I have never heard of
that before, but it certainly figures. I just wound another for 20m,
with abt 46 feet of wire on it, and it GDO's on approx 48 MHz ONLY!
Although the GDO coupled into the z bridge says it is resonant at 14250,
20 ohms. But the SWR is hopeless!
Now it figures....I was going to re-wind the same wire onto another
thicker whip and see what happens to the resonant freq.

Do you think it might help if I keep the close wound section to a half
wave or less, and make the remainder above and below the coil well
spaced? I know I'll need to try I guess as each antenna I try is different.
I am going to make a dummy test rig of mounting a mobile base on a piece
of scrap iron, with a simple 2-3 turn loop on the base. No coax. Then I
can GDO any antenna I screw onto it! I'm gunna solve this!
All observations appreciated!
Adrian.

Oops, almost missed this......

Cecil Moore wrote:
A length of 3/4 wavelength of wire is suggested
>> there.
>
>
> By who?

Someone quoted ARRL handbook chapter on mobile ants.

2350. Re: Rotator recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 04:33:48 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <X72dnVWKJ8uywrXdRVn-vg@comcast.com>
Source record: 100122

It's only 14 feet. But using the existing HD73 was cheaper than buying a new rotator, even if it is overkill. I had rebuilt the HD73 after changing the main rotator to a G1000. The tower is too far for UHF, unless I used Heliax. Chimney is 8 feeet from the rig.

Tam/WB2TT
"Howard" <mensch90249@yahoo.com> wrote in message
news:gilg201md8i60ps004ng65d0apips5l7d0@4ax.com...
> On Mon, 9 Feb 2004 12:42:55 -0500, "Tarmo Tammaru"
> <t-tammaru@home.com> wrote:
>
> >
> >"Howard" <mensch90249@yahoo.com> wrote in message
> >news:v14d20het3uco6fmi0glfkq0svhfdljmua@4ax.com...
> >> The HD73 would certainly handle the weight & windload for the setup
> >> mentioned. However, it mounts to a rotor plate - don't know if there
> >> is a mast mount for it like some of the Hy-Gain's I've seen. I have
> >> an old HD73 and control box that isn't in use and I don't have a
> >> projected need - if wanted by anyone here I'd let it go cheap.
> >> Howard
> >
> >Howard,
> >
> >You must have thrown away your lower mast support. I rejuvenated my old
> >HD73, and presently have it on a chimney mount with 1-3/8 Al pipe,
holding
> >up a 432 MHz antenna. Prior to that, the HD73 was for 20 years on a
tubular
> >Wilson tower, supporting a small tribander and a KLM 7 element 6m beam.
> >
> >Tam/WB2TT
> >
>
> Tam,
> Picked this up second hand (sight unseen) along with a 6 foot roof
> tower - one of those "too good a deal to pass up & I'll find a use
> someday" deals. Ended up getting something I don't need, sounds like
> the original owner must have pitched the lower mast support.
>
> How long is your 432 antenna, even with a long boom the HD73 probably
> doesn't even "work up a sweat" turning it 8-}
>
> Howard KE6MAK

2351. Re: Mosley TT-31

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 04:38:05 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <WcSdnWaWgvGs_bXdRVn-jg@comcast.com>
Source record: 100123

Try www.mosley-electronics.com

"T.E.O" <rfmscpa@earthlink.net> wrote in message
news:LZXVb.19163$jH6.3109@newsread1.news.atl.earthlink.net...
> Anyone heard of and/or have info on the Mosley TT-31 portable antenna?
>
>

2352. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 05:10:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402868b0_7@corp.newsgroups.com>
Source record: 100124

Jim Kelley wrote:
> Cecil Moore wrote:
>>A 2 amp phasor
>>at zero degrees added to a 2 amp phasor at zero degrees equals 4 amps at
>>zero degrees, flowing in the same instantaneous direction as the instantaneous
>>phasor components.
>
> Above lies the semantic nonsense. You've got 2 amps, alternating in
> both directions, plus another two amps that alternate in both
> directions, which equals 4 amps alternating in both directions. The
> number 4 is only true at a particular location and instant of time.

Of course, when both are at zero degrees. That's exactly what I said.

>>When the two component phasors are at 180 degrees, they
>>and their sum are flowing in the opposite direction.
>
> Semantic nonsense, plus Pi radians.

You still don't accept the fact that the sign of the cosine of the phase
angle is related to one of two possible directions in a transmission line.
Only real currents exist, Jim, and they are forced to flow in one of two
directions. The imaginary portion of the current is imaginary and doesn't
exist in the reality in which I live. Your reality may vary. Don't like
that fact? Then call it "nonsense".
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2353. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 05:15:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402869d3_7@corp.newsgroups.com>
Source record: 100125

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>Richard Clark wrote:
>>>They are called "mirrors."
>>
>>There's nothing physical there. Are they virtual mirrors?
>
> No

Hmmmmm, they're not physical and they're not virtual. Leaves only
one possibility. They are imaginary, i.e. imagined. You really
believe that a light ray in free space is affected by another
light ray flowing through it?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2354. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 05:18:27 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40286a77$1_7@corp.newsgroups.com>
Source record: 100126

Stephen Cowell wrote:
> Diathermy, or 'Violet Ray', is still used in
> beauty schools and dermatologist's offices.
> There are some skin diseases that respond
> to UV...

If I remember right, diathermy operated around 11m. I remember
hearing them when I was in high school.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2355. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 05:28:52 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402092128.428b2e52@posting.google.com>
Source record: 100127

k3bu@aol.comnoUsama (Yuri Blanarovich) wrote in message
> The flat earth society will argue that it can be only 0.1 dB improvement, but >I saw on average about 7 S-units boost.

Nope. The low 1 db or less figures we tend to harp on is the amount of modeling error one would likely see. Not related to antenna improvement by relocating loading coils or addign top loading. I see 2 S units increase on average just from adding the lower 3 ft mast to mine. "75m" 7 S units is impressive, and fairly believable to me if the original antenna had a low coil, and no top loading on 160m. That would tend to indicate you have quite a bit of ground loss to see that difference. "normal on 160" You have to be real careful when placing coils and loading wires above sheet metal though. Any sheet metal too close to the coil or upper whip, and it will totally kill the performance. I once tried running 2 Vee loading wires from above the coil, to the front of the car. The antenna was mounted on the trunk behind the back window. "chevy monte carlo" But it didn't work. The wires ended up too close to the hood and roof. It might have been ok if I had a mast on the front of the car to elevate the wires higher off the car. I sold that car, and now only drive the truck at the moment. The truck gets the antenna higher overall, but it's more of a pain because I have an aluminum camper shell on the back. Thats one reason why I keep the coil well above the roofline...I think it helps a bit that the antenna is mounted next to a window rather than all metal.
It only sees a horizontal strip running across, and it's well below the coil.
I guess your loading wires were far enough away from the body not to be effected. If it does couple to the body, the antenna will "act" like it's working, IE: tuning, etc, but will resemble a dummy load when you try to use it. When I rig up loading wires, I'll run them off away from the truck to a tree or something. Thats how I currently can work 160 using my 80-10 antenna. It works fairly well because I'm using fairly few turns of coil, and a pretty long loading wire. Takes like 25-30 ft or so if I remember right.
MK

2356. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 05:39:18 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402092139.6a1b4be4@posting.google.com>
Source record: 100128

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>
> What I find so intriguing is what the 'taper proponents' intend to do with
> the 'taper' data when at last they have it in the form of numbers? Of what
> use is it? Into what are the numbers inserted? What is the next stage in
> the proposed modelling process?

You got me. Note that Wes mentioned on his web page that the lumped
coils he modeled, seemed to more resemble "real world" results than
the distributed coils he tried. MK

2357. Scam Scam Scam !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 05:52:15 UTC
From: -Rev Jones <rpjones@GETOUTverizon.net>
Message-ID: <jk_Vb.10999$M8.9869@nwrdny02.gnilink.net>
Source record: 100129

SCAM SCAM SCAM !!! Isn't this the same guy/group thats always looking for handouts ?
I live in Long Island, What Emergency Communication Stations ?
These guys do squat except ring up news 12 once a year, funny a "Antenna Package FS is running on all teh related boards but this one
Anybody remember this posting?
==========
Subject: AMATEUR EQUIPMENT DONATION NEEDED

Newsgroups: rec.radio.swap
Date: 2004-01-23 06:22:39 PST

Long Island Mobile Amateur Radio Club (LIMARC), is looking for DONATIONS of "Ham" gear, like triband beams, rigs, and towers, to be used for our Emergency Communication Stations, and Field Day.
If you have any old equipment that you're not using anymore, and would like to donate it to our cause, we will make sure that you get a nice letter,
being that we have 503 c(3) status with the I.R.S. ,for a tax deduction, from
our club. We really need your help, so please try to assist us in any way that you
can.

> On 02 Feb 2004 22:34:55 GMT, n2ion@aol.com (N2ION) wrote:

2358. Re: need to change radiator size

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 09:08:15 UTC
From: Luddite <a2k@ripco.com>
Message-ID: <c0a71v$k6u$1@e250.ripco.com>
Source record: 100130

Richard Clark <kb7qhc@comcast.net> wrote:
> On Mon, 9 Feb 2004 23:56:36 +0000 (UTC), Luddite <a2k@ripco.com>
> wrote:

>>
>>here is a new picture
>>
>>http://pages.ripco.net/~a2k/parabolic-feed.jpg
>>
>>There is only the one element fed by a 3 foot pigtail of 9913.
>>the plan was to change it to rg-174 or .141 hardline and attach
>>a USB wifi device to the rear,and add the correct sized feed.
>>or I might settle for less than its rated 21db gain.

> Hi OM,

> It is a dual element feed. You have what appear to be two quarterwave
> slots, one wavelength apart (probably for better position

could you please explain the dual element part?
I thought they were used for attachment,look closer and you
should see remnants of melted black plastic I sliced off over them.

> tolerancing). What you offer above actually explains nothing. Change
> out 9913 to what end? Even RG-58 over that length would serve.

in this case its too big for the connectors being used.

> Attach a USB WiFi for what? To transceive?
> Why don't you just try it and see what happens? Nothing gonna break
> and if it works that's the end of it. If it doesn't work, you have
> more problems than a 4% frequency shift.

> 73's
> Richard Clark, KB7QHC

2359. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 10:54:17 UTC
From: Whoopydoo <vk3kcg@guess>
Message-ID: <4028b858$0$19707$afc38c87@news.optusnet.com.au>
Source record: 100131

A long wire balun or should we say unun is a great help for converting the high impedance of a very long wire compared with frequency to an impedance that is much closer to 50 ohms....

Check out.

http://dxantennas.com

"P N P" <jck54@mcmedia.com.au> wrote in message news:4026cac3$1@news.leadingedgeinternet.net.au...
> Could someone direct me to a site that would show me how to build a balun
> for my long wire antenna to allow me the use of 50 ohm cable down to the
> receiver ?
> T.I.A.
> John
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.580 / Virus Database: 367 - Release Date: 6/02/2004

2360. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 11:35:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c0aflk$25u$1@hercules.btinternet.com>
Source record: 100132

"Whoopydoo"
> A long wire balun or should we say unun is a great help for converting the
> high impedance of a very long wire compared with frequency to an impedance
> that is much closer to 50 ohms....
>
==========

Only half right.

If the input impedance of a long wire is LESS THAN 50 ohms then a unun makes
it worse.

Reg

2361. Re: Scam Scam Scam !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 13:43:00 UTC
From: Minnie Bannister <GoonButNotForgotten@myob.net>
Message-ID: <102hnum4mld3q6b@corp.supernews.com>
Source record: 100134

You don't think the ability to set up a station for Field Day is practice for setting up emergency communications stations? You don't think that operating a bunch of repeaters (which carried a significant amount of emergency traffic in the aftermath of 9/11) is a contribution to emergency communications?

Why should I care whether a club or other non-profit uses the stuff I donate to it or sells my donated items and uses the proceeds to buy items that are of more immediate use? E.g., do I care if I see an item I donated to Goodwill for sale in their store instead of having been delivered directly to some needy person?

Alan AB2OS (who did not renew his LIMARC membership only because he moved away from the NY area)

On 02/10/04 12:52 am -Rev Jones put fingers to keyboard and launched the following message into cyberspace

> SCAM SCAM SCAM !!! Isn't this the same guy/group thats always looking for
> handouts ?
> I live in Long Island, What Emergency Communication Stations ?
> These guys do squat except ring up news 12 once a year, funny a "Antenna
> Package FS is running on all teh related boards but this one
> Anybody remember this posting?
> =================
> Subject: AMATEUR EQUIPMENT DONATION NEEDED
>
> Newsgroups: rec.radio.swap
> Date: 2004-01-23 06:22:39 PST
>
> Long Island Mobile Amateur Radio Club (LIMARC), is looking for DONATIONS
> of "Ham" gear, like triband beams, rigs, and towers, to be used for our
> Emergency Communication Stations, and Field Day.
> If you have any old equipment that you're not using anymore, and would
> like to donate it to our cause, we will make sure that you get a nice
> letter,
> being that we have 503 c(3) status with the I.R.S. ,for a tax deduction,
> from
> our club. We really need your help, so please try to assist us in any way
> that you
> can.
>
>
>>On 02 Feb 2004 22:34:55 GMT, n2ion@aol.com (N2ION) wrote:

2362. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 13:44:40 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040210084440.19922.00001907@mb-m17.aol.com>
Source record: 100133

>
>If I remember right, diathermy operated around 11m. I remember
>hearing them when I was in high school.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Was there problem or any negative effects from diathermy?

Yuri

2363. Antenna vs Ground - interesting article FWIW

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 13:49:19 UTC
From: Vito <vito@crosslink.net>
Message-ID: <4028e163$0$27907@dingus.crosslink.net>
Source record: 100135

http://www.arising.com.au/people/Holland/Ralph/counter.htm

2364. Remember . . . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 14:04:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c0aodmbh1@titan.btinternet.com>
Source record: 100136

Remember, it is NOT the antenna's radiation pattern in the vertical plane
which determines radiation angles.

It is trigonometry and Tx and Rx geographical locations.

Reg, G4FGQ

2365. Re: Remember . . . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 14:38:50 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040210093850.21736.00001438@mb-m25.aol.com>
Source record: 100137

>
>Remember, it is NOT the antenna's radiation pattern in the vertical plane
>which determines radiation angles.
>
> It is trigonometry and Tx and Rx geographical locations.
>---
>Reg, G4FGQ
>
>
>
huh?

uh huh

2366. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 15:14:41 UTC
From: mikea@mikea.ath.cx
Message-ID: <c0ash1njh2@puck.litech.org>
Source record: 100138

Yuri Blanarovich <k3bu@aol.comnousama> wrote:

> >If I remember right, diathermy operated around 11m. I remember
> >hearing them when I was in high school.

> Was there problem or any negative effects from diathermy?

Back when I had a particularly nasty sinus infection while I was an undergraduate, I got my frontal sinuses diathermied to loosen the guck in the sinuses. Worked a treat, and I haven't noticed any ill effects -- except the green tentacles at the corners of my mouth.

--
Most people aren't thought about after they're gone. "I wonder where Bob got the plutonium" is better than most get.
-- Robert Uhl, in rec.org.sca

2367. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 15:49:21 UTC
From: gwhite <gwhite@hocuspocus_ti.com>
Message-ID: <c0aui1$79i$1@xuxa.iecc.com>
Source record: 100139
Cross-posted to: rec.audio.tech,rec.radio.amateur.antenna,rec.radio.broadcasting

Cambio wrote:
>
> My recollection of a turnstile antenna is two folded dipoles at 90 degrees
> to each other.

Yes. Although not exactly clear, that is what the Winguard is, although I would have expected a little better radiation pattern. Note the data sheet gives "2 active elements" and the drawing sort of shows the othagonality. The 90 deg of twin lead is visible too.

> See URL:
> http://www.qsl.net/wb8erj/turnstile_antenna.htm
>
> A search of radio shack catalog does not show one nor is it in the manual
> lookup section

There is a part number (150-1639):

http://support.radioshack.com/support_video/32581.htm
(linked from http://support.radioshack.com/support_video/15785.htm)

> However there is a Lindsay turnstile at URL:
> http://www.lindsayelec.com/fm88-108.html

Probably very nice quality, but look at the price! Most consumers won't dream of spending that much.

Antennacraft makes one too.

http://www.antennacraft-tdp.com/pdfs/FMSS.pdf

http://www.starkelectronic.com/fm.htm

I'd say $19.20 is a little more like it for the consumer. I'd spray a few coats of Krylon Crystal Clear on it before I put it up.

2368. Re: Remember . . . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 16:36:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40290976_4@corp.newsgroups.com>
Source record: 100140

Yuri Blanarovich wrote:

> Reg wrote:
>>Remember, it is NOT the antenna's radiation pattern in the vertical plane
>>which determines radiation angles.
>>
>>It is trigonometry and Tx and Rx geographical locations.
>
> huh? uh huh

I assume what Reg is saying is: The antenna's radiation pattern is
determined by phasing interference (superposition) of EM wave components
in the far field. In some places, they tend to reinforce and in other
places they tend to cancel. An example might be a one wavelength
vertical monopole.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2369. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 16:39:07 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <c0b19o$ae5$1@grillo.cs.interbusiness.it>
Source record: 100141

Thank you very much indeed to everybody,
I used the "1/2 power SWR is equal to 5.828" and the "return loss way" to find the Q factor and and value is the same and it is reasonable.
Massi

2370. Re: need to change radiator size

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 16:48:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q72i20p5pjinf55g882s66c96ohhpvb9d3@4ax.com>
Source record: 100142

On Tue, 10 Feb 2004 09:08:15 +0000 (UTC), Luddite <a2k@ripco.com>
wrote:

>Richard Clark <kb7qhc@comcast.net> wrote:
>> On Mon, 9 Feb 2004 23:56:36 +0000 (UTC), Luddite <a2k@ripco.com>
>> wrote:
>
>>>
>>>here is a new picture
>>>
>>>http://pages.ripco.net/~a2k/parabolic-feed.jpg
>>>
>>>There is only the one element fed by a 3 foot pigtail of 9913.
>>>the plan was to change it to rg-174 or .141 hardline and attach
>>>a USB wifi device to the rear,and add the correct sized feed.
>>>or I might settle for less than its rated 21db gain.
>
>> Hi OM,
>
>> It is a dual element feed. You have what appear to be two quarterwave
>> slots, one wavelength apart (probably for better position
>
>could you please explain the dual element part?
>I thought they were used for attachment,look closer and you
>should see remnants of melted black plastic I sliced off over them.

Yes, it did look a bit tacky. It is difficult to judge the design
from a photograph without knowing the composition of the various
components or the scale (you should show a ruler nearby).

Without being able to judge the relative positions and size of these
"plastic" elements, it is difficult to say they are mounting ears or
if they are part of a dielectric lens. Why did you "slice" them at
all?

Another clue that is missing is: What is the orientation of the feed
to the reflector? Here a picture is more meaningful than the one of
the isolated feed.

>> tolerancing). What you offer above actually explains nothing. Change
>> out 9913 to what end? Even RG-58 over that length would serve.
>
>in this case its too big for the connectors being used.

Spend $3.98 for an adapter.

>> Attach a USB WiFi for what? To transceive?
>> Why don't you just try it and see what happens? Nothing gonna break
>> and if it works that's the end of it. If it doesn't work, you have
>> more problems than a 4% frequency shift.

This advice still stands.

73's
Richard Clark, KB7QHC

2371. Re: Antenna vs Ground - interesting article FWIW

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 17:04:53 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Wa8Wb.19970$gl2.8586@lakeread05>
Source record: 100143

"Vito" <vito@crosslink.net> wrote
> http://www.arising.com.au/people/Holland/Ralph/counter.htm

Thank you, it was very interesting, but it states in part:

Figure 2.0 illustrates the efficiency for various counterpoise systems and a dipole above ground.

Actually, it only shows the effects of running a counterpoise under a dipole erected so close to the ground that it could never work properly (without a counterpoise). It is no help in determining if adding a counterpoise under a dipole that is already higher than one quarter wavelength above ground would help or not. If dipole efficiency is already between 90-100%, then the findings appear inconclusive as to whether any gain would be realized, ie: the 1.64 factor that might be possible from a perfect dipole with minimal earth-losses.

Jack

2372. Re: Remember . . . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 17:07:19 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040210120719.12966.00001714@mb-m02.aol.com>
Source record: 100144

Fugettaboutit!
No need to touch that one. You haven't even mentioned trigonometry and
locations. :-)
It is NOT the antenna('s radiaton pattern)! I wasted 46 years of my hamming
life trying to figure out antennas.
I should have kept my trigonometry books. Uh huuuuh

73 BUm

>
>Yuri Blanarovich wrote:
>
> > Reg wrote:
>>>Remember, it is NOT the antenna's radiation pattern in the vertical plane
>>>which determines radiation angles.
>>>
>>>It is trigonometry and Tx and Rx geographical locations.
>>
>> huh? uh huh
>
>I assume what Reg is saying is: The antenna's radiation pattern is
>determined by phasing interference (superposition) of EM wave components
>in the far field. In some places, they tend to reinforce and in other
>places they tend to cancel. An example might be a one wavelength
>vertical monopole.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

2373. Re: Scam Scam Scam !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 17:52:16 UTC
From: bfy51 <bfy51@prankster23.fsnet.co.uk>
Message-ID: <c0b5oh$3k0$1@newsg4.svr.pol.co.uk>
Source record: 100145

so is it a scam or not?

2374. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 18:07:45 UTC
From: k7itm@aol.com
Message-ID: <3200347.0402101007.dedf236@posting.google.com>
Source record: 100146

I think Wes has given you a nice explanation about _how_, but I'm
curious _why_ you want to know the Q of an antenna. (Beware...some
antennas behave as multiple coupled resonators, and it can be
misleading to try to assign a Q to a whole system of coupled
resonators. It makes some theoretical sense, at least, if it behaves
as a single resonator over the frequency of interest, though.)

Cheers,
Tom

"Massi" <msignorini@calearotlc.com> wrote in message
news:<c07uen$ee5$1@fata.cs.interbusiness.it>...
> Hi to everybody,
> I got the VSWR of an antenna from a Vector Analyzer and I'd like to know
> (and how) if is possible to calculate the Quality Factor from it.
> Thanks,
> Massimo

2375. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 18:38:31 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40292527.BE9E019F@uci.edu>
Source record: 100147

Cecil Moore wrote:
> You still don't accept the fact that the sign of the cosine of the phase
> angle is related to one of two possible directions in a transmission line.

I don't accept all of you ideas about it, no. When adding two AC signals, their relative phase determines whether the signals add or subtract. I have no idea what you think it says about the direction an "alternating current is traveling". That part of it is absolute nonsense.

73, Jim AC6XG

2376. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 18:52:28 UTC
From: tdonaly@aol.com
Message-ID: <20040210135228.11422.00001874@mb-m05.aol.com>
Source record: 100148

Richard wrote,
>
>On 09 Feb 2004 20:28:28 GMT, tdonaly@aol.com (Tdonaly) wrote:
>>They change but they don't move.
>>73,
>>Tom Donaly
>
>Gads Tom,
>
>That will have him putting on his Galileo masquerade next. ;-)
>
>I'm still waiting for that act where Cecileo drops his balls off the
>Tower of Pisa.
>
>I can anticipate the Cecilean logic now:
> The balls, falling, traverse half the distance in half the time;
> hence with each half of the remaining distance, half that time;
> as there is always half the distance to go, they never hit;
> ergo gravity does not exist!
> If gravity does not exist, no test need be performed
> (followed by 600 posts about the current in the Tiber).
>
>[note: there is more than one error in this; however, I would just as
>soon see which of his balls drops the farthest even if they don't hit
>the ground.]
>
>73's
>Richard Clark, KB7QHC
>

Hi Richard,
I didn't think he'd get it, but that's o.k. It's getting so
the only way to post to this newsgroup is to write little Zen riddles
and let Cecil meditate his way to enlightenment, since mathematical
logic, and experiment are against his principles. Salvation through
enlightenment is an old concept in the Far East where it has always
worked well. It should work even better way out in the Texas
wasteland where Cecil keeps his abode, since there's very little out
there to disturb his meditation.
73,
Tom Donaly, KA6RUH

2377. balloon antenna website???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 18:55:41 UTC
From: lorentzson@lycos.com
Message-ID: <402d2859.7344452@news.devtex.net>
Source record: 100149

I was just wondering if there is a balloon antennae web site, or
'group'
??? Have a few ideas ,,, but they come with some questions. thaks
cl 73

2378. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:00:19 UTC
From: tdonaly@aol.com
Message-ID: <20040210140019.11422.00001875@mb-m05.aol.com>
Source record: 100150

Reg wrote,
>
>Sec sez -
>> You guys come on over to East Texas for free beer and pizza.
>
>=======================
>
>What! No red wine, no mature cheese!
>
>

We'll come over to your house for that, Reg.
73,
Tom Donaly, KA6RUH

2379. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:06:36 UTC
From: tdonaly@aol.com
Message-ID: <20040210140636.11422.00001876@mb-m05.aol.com>
Source record: 100151

W4JLE wrote,
>
>Wine and cheese is for the faggoty French and those that aspire to be French
>like the English woman on "Keeping up appearances".
>
>Real men drink beer, eat pizza, 4 alarm chili, scratch their nuts and shoot
>at creatures roaming the woods.
>
>
>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>news:c095jn$sc5$1@sparta.btinternet.com...
>> Sec sez -
>> > You guys come on over to East Texas for free beer and pizza.
>>
>> ========================
>>
>> What! No red wine, no mature cheese!
>>
>>
>

Which just goes to show how soft real men have become. In the old days,
the requirements also included eating peas with a Bowie knife and being
able to hit a spittoon every time at twenty yards, not to mention the usual
bear rassling and dynamite-fisted bare knuckles fights.
73,
Tom Donaly, KA6RUH

2380. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:18:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40292f4b_1@corp.newsgroups.com>
Source record: 100153

Jim Kelley wrote:
>
> Cecil Moore wrote:
>
>>You still don't accept the fact that the sign of the cosine of the phase
>>angle is related to one of two possible directions in a transmission line.
>
> I don't accept all of you ideas about it, no. When adding two AC
> signals, their relative phase determines whether the signals add or
> subtract. I have no idea what you think it says about the direction an
> "alternating current is traveling". That part of it is absolute
> nonsense.

"Absolute nonsense." Translation: "I don't understand."

Jim, the real current, the current that exists in this real world, is
I*cos(phase_angle). In a wire, there are only two possible directions
for current flow. The sign of cos(phase_angle) yields the direction
of current flow, referenced to something, usually the source. In a wire,
current cannot stand still. Therefore, it must be flowing in one of
two directions. If the cos(phase_angle) is positive, convention has it
flowing toward the load. If the cos(phase_angle) is negative convention
has it flowing toward the source. Instantaneous AC current changes direction
every 1/2 cycle and every 1/2 wavelength. I notice that no one argued with
my peak current diagram in 2 wavelengths of transmission line.

Kraus says that antenna current reverses phase every 180 degrees (for a
thin wire). That assertion applies to either 180 degrees of time or 180
degrees of antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2381. Building a 70 cm slotted line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:20:26 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <_9aWb.22724$uM2.9268@newsread1.news.pas.earthlink.net>
Source record: 100152

Actually, not slotted. Here's what I have in mind:

Use some 1/16 inch common FR4 two-sided PCB material. The ARRL UHF/Microwave Experimenter's book shows that a .105 inch wide trace will have a characteristic impedance of 50 Ohms. For 434 MHz, I will make it at least 3.6 inches long (velocity factor = .528) but probably more like 6 or 7 inches long.

Here is where I have a bit of a problem. I need a probe to run along the .105 inch trace so I can read the (rectified) signal. From the data I should be able to calculate the load impedance.

I have read that a small current loop placed near the line would suffice. But would it be too insensitive at low power (<10 mW)? Also, how would I maintain the separation between the probe and line? Should I use a probe that would contact the line instead?

Mechanical stuff is my weakest point. Any ideas?

Thanks in advance.

John, KD5YI

2382. Re: Remember . . . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:22:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c0bb1u$b0e$1@titan.btinternet.com>
Source record: 100154

Damn, Damn, Damn, Damn, Damn !

Sorry about the typo.

For 'radiation' read 'elevation'.

Reg, G4FGQ

========================

> Remember, it is NOT the antenna's radiation pattern in the vertical plane
> which determines radiation angles.
>
> It is trigonometry and Tx and Rx geographical locations.
> ---
> Reg, G4FGQ

2383. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:24:45 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402930d4$1_1@corp.newsgroups.com>
Source record: 100156

Tdonaly wrote:
> I didn't think he'd get it, but that's o.k. It's getting so
> the only way to post to this newsgroup is to write little Zen riddles
> and let Cecil meditate his way to enlightenment, since mathematical
> logic, and experiment are against his principles.

When you can't win the argument, launch an ad hominem attack. Nobody has offered anything that proves me technically wrong about AC current flow. You guys who believe that AC current always flows the same direction have been seduced by the DC model that you have been using. Maybe you should be reminded that the only relationship between DC and RMS AC is the power transfer abilities. Shirley, you can understand that AC transfers power no matter which direction the current is flowing.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2384. Re: Remember . . . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:25:10 UTC
From: tdonaly@aol.com
Message-ID: <20040210142510.11422.00001877@mb-m05.aol.com>
Source record: 100155

Reg wrote,
>
>Remember, it is NOT the antenna's radiation pattern in the vertical plane
>which determines radiation angles.
>
> It is trigonometry and Tx and Rx geographical locations.
>---
>Reg, G4FGQ
>

Reg, you know full well that the above statement requires too much
from the heads of the people it's aimed at. Isn't the causing of headaches
in other people a form of assault?
73,
Tom Donaly, KA6RUH

2385. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:26:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40293122$1_1@corp.newsgroups.com>
Source record: 100157

Tdonaly wrote:
> Which just goes to show how soft real men have become. In the old days,
> the requirements also included eating peas with a Bowie knife and being
> able to hit a spittoon every time at twenty yards, not to mention the usual
> bear rassling and dynamite-fisted bare knuckles fights.

"Now where's that Indian Maiden that I'm supposed to wrestle?"
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2386. Re: Remember . . . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:31:43 UTC
From: tdonaly@aol.com
Message-ID: <20040210143143.11422.00001878@mb-m05.aol.com>
Source record: 100158

>
>Fugettaboutit!
>No need to touch that one. You haven't even mentioned trigonometry and
>locations. :-)
>It is NOT the antenna('s radiaton pattern)! I wasted 46 years of my hamming
>life trying to figure out antennas.
>I should have kept my trigonometry books. Uh huuuuh
Cecil and Yuri wrote,
>
>73 BUm
>
>>
>>Yuri Blanarovich wrote:
>>
>> > Reg wrote:
>>>>Remember, it is NOT the antenna's radiation pattern in the vertical plane
>>>>which determines radiation angles.
>>>>
>>>>It is trigonometry and Tx and Rx geographical locations.
>>>
>>> huh? uh huh
>>
>>I assume what Reg is saying is: The antenna's radiation pattern is
>>determined by phasing interference (superposition) of EM wave components
>>in the far field. In some places, they tend to reinforce and in other
>>places they tend to cancel. An example might be a one wavelength
>>vertical monopole.
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>>
>>
>

Poor Cecil, poor Yuri! You fellows have just been taken in by a
fiendish Englishman.
73,
Tom Donaly

2387. Re: Scam Scam Scam !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:47:22 UTC
From: -Rev Jones <rpjones@GETOUTverizon.net>
Message-ID: <ezaWb.34723$KV5.626@nwrdny01.gnilink.net>
Source record: 100159

Oh yeah, I wouldn't be to sure about that

New York state only requires %5 to actually be donated, the remaining 95%
can be pocketed by people operating the charities as "bloated operating
expenses, salaries, consulting fees"
.....no policing what so ever !

So you tell me ?
Take a look at what these jokers on Long Island did and got away with, it
proves white collar "monkey business" pays. They were out of jail by last
September paid a couple pennies fine, built huge extensions on there homes,
baught new Benz's
Had they not been so greedy and actually used 5% of what they collected they
would not have been caught.
http://www.usdoj.gov/usao/txn/PressRel01/kidwish.pr.htm

Im not pointing fingers at anybody including LIMARC but the potential for
"monkey business" is sure there, especially when relatives of famous NY
politicians are involved (again read above)

-Rev

"Minnie Bannister" <GoonButNotForgotten@myob.net> wrote in message
news:102hnum4mld3q6b@corp.supernews.com...
> You don't think the ability to set up a station for Field Day is
> practice for setting up emergency communications stations? You don't
> think that operating a bunch of repeaters (which carried a significant
> amount of emergency traffic in the aftermath of 9/11) is a contribution
> to emergency communications?
>
> Why should I care whether a club or other non-profit uses the stuff I
> donate to it or sells my donated items and uses the proceeds to buy
> items that are of more immediate use? E.g., do I care if I see an item I
> donated to Goodwill for sale in their store instead of having been
> delivered directly to some needy person?
>
> Alan AB2OS (who did not renew his LIMARC membership only because he
> moved away from the NY area)
>
>
> On 02/10/04 12:52 am -Rev Jones put fingers to keyboard and launched the
> following message into cyberspace
>
> > SCAM SCAM SCAM !!! Isn't this the same guy/group thats always looking
for
> > handouts ?

> > I live in Long Island, What Emergency Communication Stations ?
> > These guys do squat except ring up news 12 once a year, funny a "Antenna
> > Package FS is running on all teh related boards but this one
> > Anybody remember this posting?
> > =================
> > Subject: AMATEUR EQUIPMENT DONATION NEEDED
> >
> > Newsgroups: rec.radio.swap
> > Date: 2004-01-23 06:22:39 PST
> >
> > Long Island Mobile Amateur Radio Club (LIMARC), is looking for DONATIONS
> > of "Ham" gear, like triband beams, rigs, and towers, to be used for our
> > Emergency Communication Stations, and Field Day.
> > If you have any old equipment that you're not using anymore, and would
> > like to donate it to our cause, we will make sure that you get a nice
> > letter,
> > being that we have 503 c(3) status with the I.R.S. ,for a tax
deduction,
> > from
> > our club. We really need your help, so please try to assist us in any
way
> > that you
> > can.
> >
> >
> >>On 02 Feb 2004 22:34:55 GMT, n2ion@aol.com (N2ION) wrote:

2388. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 19:52:11 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4029366B.42D4F79A@uci.edu>
Source record: 100160

Cecil Moore wrote:
> If the cos(phase_angle) is positive, convention has it
> flowing toward the load. If the cos(phase_angle) is negative convention
> has it flowing toward the source.

Prove it.

73, Jim AC6XG

2389. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 21:47:26 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <rtji20pi9l7b0cj56i8ji5idtl6e0jtj2j@4ax.com>
Source record: 100161

On 10 Feb 2004 10:07:45 -0800, k7itm@aol.com (Tom Bruhns) wrote:

|I think Wes has given you a nice explanation about _how_, but I'm
|curious _why_ you want to know the Q of an antenna. (Beware...some
|antennas behave as multiple coupled resonators, and it can be
|misleading to try to assign a Q to a whole system of coupled
|resonators. It makes some theoretical sense, at least, if it behaves
|as a single resonator over the frequency of interest, though.)

Good point. I was going to mention Yagis, etc. and point out the
pitfalls but figured I'd gone on long enough. [g]

2390. Re: Remember . . . . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 21:51:51 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <c0bjpc$15c07k$1@ID-175933.news.uni-berlin.de>
Source record: 100162

Gibberish, in any case.

RF

Visit http://rfry.org for FM broadcast RF system papers.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c0bb1u$b0e$1@titan.btinternet.com...
> Damn, Damn, Damn, Damn, Damn !
>
> Sorry about the typo.
>
> For 'radiation' read 'elevation'.
> ---
> Reg, G4FGQ
>
> ========================
>
> > Remember, it is NOT the antenna's radiation pattern in the vertical
plane
> > which determines radiation angles.
> >
> > It is trigonometry and Tx and Rx geographical locations.
> > ---
> > Reg, G4FGQ

2391. Re: balloon antenna website???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 23:09:14 UTC
From: Cambio <CAM@ripped.net>
Message-ID: <uwdWb.14856$IF1.13695@fed1read01>
Source record: 100163

See Kite and Balloon Lifted Antennas -- Limited Space Solutions for the Low Bands

URL: http://www.qsl.net/g4vgo/index.htm

--
73- Cambio - Keyboard To You (:-)

"lorentzson" <lorentzson@lycos.com> wrote in message
news:402d2859.7344452@news.devtex.net...
> I was just wondering if there is a balloon antennae web site, or
> 'group'
> ??? Have a few ideas ,,, but they come with some questions. thaks
> cl 73

2392. Re: Building a 70 cm slotted line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 23:27:58 UTC
From: k7itm@aol.com
Message-ID: <3200347.0402101527.4a35c10f@posting.google.com>
Source record: 100164

You may have some trouble getting enough signal with a loop probe
that's short compared with the line length, but you could easily give
it a try. FWIW, I just made some voltage-doubler diode detectors
using HSMS-285C zero-bias Schottky diodes, and get about 20 microvolts
DC output at -50dBm input at 50 ohms. You could get considerably more
output if you have a resonant pickup. You might also be able to use a
non-contact voltage probe. It should work very well with a diode
detector, for low power, actually. Recommend you make the line at
least 1/2 wave long, so that you can be sure to see both a peak and a
valley, no matter what the phase of the load is. Better still, make
it at least 3/4 wave, so you can see two peaks or two valleys.

Cheers,
Tom

"John Smith" <jocjo-john@yooha.com> wrote in message
news:<_9aWb.22724$uM2.9268@newsread1.news.pas.earthlink.net>...
> Actually, not slotted. Here's what I have in mind:
>
> Use some 1/16 inch common FR4 two-sided PCB material. The ARRL
> UHF/Microwave Experimenter's book shows that a .105 inch wide trace
> will have a characteristic impedance of 50 Ohms. For 434 MHz, I will
> make it at least 3.6 inches long (velocity factor = .528) but
> probably more like 6 or 7 inches long.
>
> Here is where I have a bit of a problem. I need a probe to run along
> the .105 inch trace so I can read the (rectified) signal. From the
> data I should be able to calculate the load impedance.
>
> I have read that a small current loop placed near the line would
> suffice. But would it be too insensitive at low power (<10 mW)?
> Also, how would I maintain the separation between the probe and line?
> Should I use a probe that would contact the line instead?
>
> Mechanical stuff is my weakest point. Any ideas?
>
> Thanks in advance.
>
> John, KD5YI

2393. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-10 23:35:26 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c0bpva$av9$1@newshost.mot.com>
Source record: 100165

Sounds like I need to scan & post the technical explanation for the Micro Match from QST. I have a copy from Dad's stuff. It gives an explanatin of how you sample the voltage & current on the line, account for phase and determine fwd & rev power. Think it'd help?

I can't address this issue (my brain can't get a lock on the phase/direction issue) .

--
Steve N, K,9;d, c. i My email has no u's.

"Jim Kelley" <jwkelley@uci.edu> wrote in message news:4029366B.42D4F79A@uci.edu...
> Cecil Moore wrote:
> > If the cos(phase_angle) is positive, convention has it
> > flowing toward the load. If the cos(phase_angle) is negative convention
> > has it flowing toward the source.
>
> Prove it.
>
> 73, Jim AC6XG

2394. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 00:03:25 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4029714D.C3C0A20D@uci.edu>
Source record: 100166

Steve Nosko wrote:
>
> Sounds like I need to scan & post the technical explanation for the Micro
> Match from QST. I have a copy from Dad's stuff. It gives an explanatin of
> how you sample the voltage & current on the line, account for phase and
> determine fwd & rev power. Think it'd help?

Cecil claims he's not talking about the direction of wave propagation.
He says he's talking about current flow. DC flows in one of two
possible directions, but Cecil seems to think that AC does as well.

> I can't address this issue (my brain can't get a lock on > the phase/direction issue).

My impression is that Cecil may be having a similar kind of difficulty.

73, Jim AC6XG

2395. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 00:09:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402973ac_1@corp.newsgroups.com>
Source record: 100167

Jim Kelley wrote:
> Cecil Moore wrote:
>>If the cos(phase_angle) is positive, convention has it
>>flowing toward the load. If the cos(phase_angle) is negative convention
>>has it flowing toward the source.
>
> Prove it.

Huh? You're kidding, right? Plug a 100k resistor into your wall socket. Assuming the "hot" wire is the one on the left, like it is in my house, and that hot wire is the reference: When the resistor lead plugged into the hot side is a positive voltage compared to the other side, the current is flowing out of the hot wire into the resistor, by convention. When the resistor lead plugged into the hot side is a negative voltage, the current is flowing into the hot wire. Shirley, this is common knowledge for a physics prof. It is certainly common knowledge for power engineers.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2396. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 00:16:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4029751b_1@corp.newsgroups.com>
Source record: 100168

Art Unwin KB9MZ wrote:
> Cecil we have severe weather here that it requires a real snow job from me
> to emerge back into this particular thread !!!!!

Just remember when Einstein said, "God doesn't roll dice", one of the QED physicists replied that, "Not only does God roll dice, he rolls them in the dark." :-) What's wrong with your browser?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2397. Re: Building a 70 cm slotted line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 00:20:35 UTC
From: John Smith <jocjo-john@yooha.com>
Message-ID: <nzeWb.23022$uM2.11660@newsread1.news.pas.earthlink.net>
Source record: 100069

"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0402101527.4a35c10f@posting.google.com...
> You may have some trouble getting enough signal with a loop probe
> that's short compared with the line length, but you could easily give
> it a try. FWIW, I just made some voltage-doubler diode detectors
> using HSMS-285C zero-bias Schottky diodes, and get about 20 microvolts
> DC output at -50dBm input at 50 ohms. You could get considerably more
> output if you have a resonant pickup. You might also be able to use a
> non-contact voltage probe. It should work very well with a diode
> detector, for low power, actually. Recommend you make the line at
> least 1/2 wave long, so that you can be sure to see both a peak and a
> valley, no matter what the phase of the load is. Better still, make
> it at least 3/4 wave, so you can see two peaks or two valleys.
>
> Cheers,
> Tom

Thanks, Tom. Very good advice and I appreciate the Schottky diode lead. I'll look in to getting some of them.

73,
John

2398. Recomend Size of Aux Antenna for use with MFJ-1025/6 or ANC-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 01:30:31 UTC
From: Ronald Walters <rwalters8@cfl.rr.com>
Message-ID: <XAfWb.31383$u43.218190@twister.tampabay.rr.com>
Source record: 100070

Have a MFJ-1026 noise canceling signal enhancer and have determined that the only way it can really achieve the desired results in most cases is with a remote antenna.

I use a 40 meter double extended center feed zepp on 80 and 40 meters with great results. Recent birdies (Noise) from a man made product which I can not track down gives me S-9+ signals on 80 meters and around S-7 on 40 every 17 kc's.

I have read were some success using a 20 meter dipole has provide a strong enough signal for the MFJ to be effective. I am thinking of using a 40 meter dipole 40 feet lower than the Zepp and around 40 feet parallel to the Zepp. That large of a antenna however might induce to much RF on the Aux antenna connected to the MFJ and cause future problems.

Looking for recommendations from users of the ANC-4 or MFJ-1025 or 1026. Your input will be appreciated, thanks in advance.

73 - Ron W4LDE

2399. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 01:42:22 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4029887E.5EDD9DD3@uci.edu>
Source record: 100071

Cecil Moore wrote:

> Plug a 100k resistor into your wall socket.
> Assuming the "hot" wire is the one on the left, like it is in my
> house, and that hot wire is the reference: When the resistor lead
> plugged into the hot side is a positive voltage compared to the other
> side, the current is flowing out of the hot wire into the resistor, by
> convention. When the resistor lead plugged into the hot side is a > > negative voltage,
the current is flowing into the hot wire.

Right - sort of. But alternating current flows *through* the resistor -
not *to* and/or *from* it. There is no convention describing
unidirectional flow of alternating current. That is what you've been
trying to say, i.e. current into one end of a coil.

73, Jim AC6XG

2400. Not-so-basic FM car antenna diversity questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 06:10:57 UTC
From: ericdwong@yahoo.com
Message-ID: <7b667fe1.0402102210.15d19ad8@posting.google.com>
Source record: 100072

Hi everybody, I have basic knowledge about electronics. And I've used diversity reception items before (2 of my cars have it, I've also used wlreless mics with it in the PA market). Anyway, the 2 cars in question are a 97 Nissan Maxima and a 98 Chevy Corvette. The maxima's is fairly straight forwards, it uses one mast, one in the glass. The antenna connector on the OEM radio is a double plug style. When I used to have an aftermarket unit in there, I just bought an adaptor and plugged it to the mast antenna as it seemed to work better most of the time. Obviously here, all the processing, switching etc gets done inside the OEM headunit.

Now, heres the car I'm working on now. The 98 Corvette has 2 in the glass antennas. The wires go into a seperate box thats behind the drivers seat sorta on the B pillar. This is obviously the switcher box, as theres also a plug that appears to go back to the OEM radio. I of course have lost this OEM radio long ago and put in an aftermarket. but the reception has been notably poor. This is most likely because there is no 'feedback' which is probably done inside that OEM headunit which isnt there anymore.

Even with the OEM headunit, when I'd turn on the rear defrost the radio would go to static. I attribute this to something wrong with either the box or grounding or something along those lines.
Also interesteing is that the 2 'inputs' of that box are the standard motorola style plug, where as the output is then the GM mini plug.

I have not tried anything yet, but I plan to bypass this box completely, by just getting a antenna extension and directly plugging it into either the front or the rear antenna. I'm crossing my fingers big time to see if it does better then what I got now. I know that simply wiring them in parallel is a no no.

Heres my question, does anybody make (or have a project kit) that can give me the diversity reception back? I have searched the groups and the net and have come up with very limited information. I know delphi (the maker of the OEM antenna system in the corvette) has some stuff but it is unclear if thats OEM stuff or aftermarket stuff.

2401. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 07:09:17 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0cketbmo1@xuxa.iecc.com>
Source record: 100073
Cross-posted to: rec.audio.tech,rec.radio.amateur.antenna,rec.radio.broadcasting

gwhite wrote:

>> However there is a Lindsay turnstile at URL:
>> http://www.lindsayelec.com/fm88-108.html
>
> Probably very nice quality, but look at the price! Most consumers won't
> dream of spending that much.
>
> Antennacraft makes one too.
>
> http://www.antennacraft-tdp.com/pdfs/FMSS.pdf
>
> http://www.starkelectronic.com/fm.htm
>
> I'd say $19.20 is a little more like it for the consumer. I'd spray a
> few coats of Krylon Crystal Clear on it before I put it up.

I'm in UK. You cannot buy the turnstile direct from FUNKE. Cost of "R.1100-
FM OMNI" to me is appx. $33.00. Google: R.1100- FM OMNI to see the item.

2402. Re: VSWR and Quality Factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 07:36:47 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <c0clso$2n9$1@grillo.cs.interbusiness.it>
Source record: 100074

"Wes Stewart" <n7ws@_arrl.net> ha scritto nel messaggio
news:rtji20pi9l7b0cj56i8ji5idtl6e0jtj2j@4ax.com...
> On 10 Feb 2004 10:07:45 -0800, k7itm@aol.com (Tom Bruhns) wrote:
>
> |I think Wes has given you a nice explanation about _how_, but I'm
> |curious _why_ you want to know the Q of an antenna. (Beware...some
> |antennas behave as multiple coupled resonators, and it can be
> |misleading to try to assign a Q to a whole system of coupled
> |resonators. It makes some theoretical sense, at least, if it behaves
> |as a single resonator over the frequency of interest, though.)

I'm working for an RFID project (13.56 MHz) and the Q factor is very
important.
We are in the near field and we use the inductive coupling; the Q has to be
between 40 and 60. For Q too high there is not enough bandwidth for the
modulation and the antenna is too much sensible to the environment, for Q
too short the signal is weak.
Massimo

2403. Re: Recomend Size of Aux Antenna for use with MFJ-1025/6 or ANC-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 11:44:37 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.NET>
Message-ID: <rqGdnaJdrM9EiLfd4p2dnA@comcast.com>
Source record: 100075

"Ronald Walters" <rwalters8@cfl.rr.com> wrote in message
news:XAfWb.31383$u43.218190@twister.tampabay.rr.com...
> Have a MFJ-1026 noise canceling signal enhancer and have determined that
the
> only way it can really achieve the desired results in most cases is with a
> remote antenna.
>
> I use a 40 meter double extended center feed zepp on 80 and 40 meters with
> great results. Recent birdies (Noise) from a man made product which I can
> not track down gives me S-9+ signals on 80 meters and around S-7 on 40
every
> 17 kc's.
>
> I have read were some success using a 20 meter dipole has provide a strong
> enough signal for the MFJ to be effective. I am thinking of using a 40
> meter dipole 40 feet lower than the Zepp and around 40 feet parallel to
the
> Zepp. That large of a antenna however might induce to much RF on the Aux
> antenna connected to the MFJ and cause future problems.
>
> Looking for recommendations from users of the ANC-4 or MFJ-1025 or 1026.
> Your input will be appreciated, thanks in advance.

The "birdies" are probably NOT generated outside your QTH.
Put up a long wire INSIDE as your sense antenna.
Do NOT use an antenna that is well coupled to the transmitting antenna!

It is not easy to properly adjust the MFJ, but with a careful tuning,
you can null out the "birdies". Be sure to write down the settings for the
frequencies you,,, frequent.
>
> 73 - Ron W4LDE
>
>

--
*
| __O Thomas C. Sefranek WA1RHP@ARRL.net
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

2404. Re: 418 mhz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 12:04:13 UTC
From: LPC2106 <nospam@noemail.com>
Message-ID: <c0d5m7$33u534@imsp212.netvigator.com>
Source record: 100076
Cross-posted to: alt.ham-radio.packet,rec.radio.amateur.antenna

Tom Twist <tom@twist.no> wrote in message
news:jj8f20l0j9e6a5iq4bcl9j6hpitd4r082a@4ax.com...
> On Mon, 9 Feb 2004 21:11:08 +0800, "OZ" <OZ@NOSPAMOZ.com> wrote:
>
> >
> >Tom Twist <tom@twist.no> wrote in message
> >news:mh7d20h2u2cjl3mf1ub5p07kpdojn801vk@4ax.com...
> >> On Sun, 08 Feb 2004 20:08:52 GMT, "Steve GOG" <FN30@optonlne.net>
> >> wrote:
> >>
> >> >an antenna for 418mhz is like an antenna for 71.7cm band , very
similiar
> >> >
> >> >hehe,
> >> >
> >> >
> >> >"Thomas C. Sefranek" <WA1RHP@ARRL.NET> wrote in message
> >> >news:Q-idnQpK6om7hLvdRVn-hw@comcast.com...
> >> >>
> >> >> "OZ" <OZ@NOSPAMOZ.com> wrote in message
> >> >> news:c04kpm$3nd2@imsp212.netvigator.com...
> >> >> > what is 418 mhz antenna like?
> >> >> >
> >> >> >
> >> >> It's like any antenna, only different.
> >> >>
> >>
> >> It is a lot bigger than most antennas.
> >> 418mhz =418 milliHertz= 0.418 Hz (MHz is MegaHertz)
> >> Wavelength is 718000 km ;-)
> >>
> >> Tom
> >
> >
> >not clear, do u have a pic of it.
> >
>
> Sorry
>
> I don't operate on such low frequencies.

the document said 18 cm

>
> Tom
> ---
> Email: tom@twist.no (lb8x@qsl.net)
> Phone: +47 35972928/90662366, Ham call sign: LB8X Locator: JO49UA
> Snail: Tom Twist, Kirkeveien 8A, N3970 Langesund, Norway

2405. Re: Recomend Size of Aux Antenna for use with MFJ-1025/6 or ANC-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 13:13:55 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <402A2A91.4000500@frontiernet.net>
Source record: 100077

Thomas C. Sefranek wrote:
> "Ronald Walters" <rwalters8@cfl.rr.com> wrote in message
> news:XAfWb.31383$u43.218190@twister.tampabay.rr.com...
>
>>Have a MFJ-1026 noise canceling signal enhancer...
>>Looking for recommendations from users of the ANC-4 or MFJ-1025 or 1026.
>
>
> The "birdies" are probably NOT generated outside your QTH.
> Put up a long wire INSIDE as your sense antenna.
> Do NOT use an antenna that is well coupled to the transmitting antenna!

I use the telescoping, screw-in whip antenna that came with the ANC-4
and get good results on bands 160-20. I also have an outdoor vertical
wire, maybe 10 feet or so that I can hook to the ANC-4 and it
occasionally does better than the whip. My main antenna is an end fed
wire, approx. 200 feet and horizontal. After midnight I use the ANC-4
to pick out AM broadcast DX, it's surprising how well it works with
careful tuning. I don't use it much above 20m.

> It is not easy to properly adjust the MFJ, but with a careful tuning,
> you can null out the "birdies". Be sure to write down the settings for the
> frequencies you,,, frequent.
>>73 - Ron W4LDE

I have to readjust my settings every 15-30 minutes, very small
readjustments but necessary.

73,
W8LNA

2406. Wireless lan

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 13:31:18 UTC
From: MAP <nospam@terra.es>
Message-ID: <G8qWb.3330653$uj6.9093390@telenews.teleline.es>
Source record: 100078

Hi all,
I would like to create a wireless lan joining 2 sites that are about 50 meters (150 feet) apart. The problem is that my neightbor has a BIG parabolic antenna only 50 cm from where I have to put mine, and my signal has to pass through his antenna (my antenna has to point his antenna, the other site is in that direction). Should this be a problem?? I will create interferences in his antenna? He will create on mine?? how many dbi need to accomplish that?

Thanks

MAP

2407. capacitor su PCB FR-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 15:09:11 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <c0dp1ncja1@fata.cs.interbusiness.it>
Source record: 100080

Hi to everybody,
I need to obtain a capacitor in a PCB single sided. Does anybody has a
formula to calculate the lenght, the width and the shape of it?
I'm working around 13 MHz (=13000000 Hz...)
Thanks

Massimo

2408. Re: Antenna vs Ground - interesting article FWIW

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 16:41:04 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <HsxICG.3ru@bath.ac.uk>
Source record: 100079

Jack Painter wrote:

> Figure 2.0 illustrates the efficiency for various counterpoise systems and a
> dipole above ground.
> ---
> Actually, it only shows the effects of running a counterpoise under a dipole
> erected so close to the ground that it could never work properly (without a
> counterpoise). It is no help in determining if adding a counterpoise under a
> dipole that is already higher than one quarter wavelength above ground would
> help or not. If dipole efficiency is already between 90-100%, then the
> findings appear inconclusive as to whether any gain would be realized, ie:
> the 1.64 factor that might be possible from a perfect dipole with minimal
> earth-losses.
>
>
0.25 lambda = 40 m or ~130 ft on top band. Few of us have top band antennas
that high. Did you not notice the working frequency of 1.825 MHz?

If your antenna is already 90-100% efficient it seems fairly obvious that
there is little more to get without sacrificing omni directionality.

2409. Re: Wow Cecil!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 18:08:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402a7089_6@corp.newsgroups.com>
Source record: 100081

mustang wrote:
> Do you think it might help if I keep the close wound section to a half
> wave or less, and make the remainder above and below the coil well
> spaced?

Here's what I would try as a wild hair experiment. Wind the electrical 1/2WL helix and find the frequency at which the impedance is purely resistive and maximum. A GDO should accomplish that. That's the resonant frequency for an end-fed 1/2WL monopole. Use some spacing and wind the remainder of the coil opposite to the original, i.e. CW Vs CCW. This would theoretically put the fields in phase on each side of that current node. It sounds very tricky and I have never heard of it being done before, but it might work.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2410. How 2 do this, lite antenna????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 18:13:57 UTC
From: lorentzson@lycos.com
Message-ID: <402e70e4.42635057@news.devtex.net>
Source record: 100082

I would appreiate any and all 'input/info' about light weight antenna coax. I need to 'run' about 150 or 200 feet of coax

2411. Re: Wow Cecil!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 18:20:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402a733b$1_6@corp.newsgroups.com>
Source record: 100083

Cecil Moore wrote:

> mustang wrote:
>> Do you think it might help if I keep the close wound section to a half
>> wave or less, and make the remainder above and below the coil well
>> spaced?
>
> Here's what I would try as a wild hair experiment. Wind the electrical
> 1/2WL helix and find the frequency at which the impedance is purely resistive and
> maximum. A GDO should accomplish that. That's the resonant frequency for an
> end-fed 1/2WL monopole. Use some spacing and wind the remainder of the coil
> opposite to the original, i.e. CW Vs CCW. This would theoretically put the
> fields in phase on each side of that current node. It sounds very tricky
> and I have never heard of it being done before, but it might work.

And of course, this would work perfectly on only a single frequency. Off
to each side of that frequency, the problem would again manifest itself.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2412. Re: How 2 do this, lite antenna????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 18:37:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <402A766B.CDC6C870@cwis.net>
Source record: 100084

Just how 'lite' a cable you can reasonably use depends on
the freuqnecy in use, if it's for receiving only, or will be
used to transmit too. So, what frequency?
'Doc

2413. question about 160m Isotron Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 18:49:59 UTC
From: "William E. Verge" <VOLANS@AOL.COM>
Message-ID: <h9uk205gav88fkt08hgcf25gr807f4uma0@4ax.com>
Source record: 100085

Hi All,
I would like to know if any of you have used one of the Isotron
Antennas for 160 m?

What have been your experiences both pro and con? Or if you know of
someone that has used one what has been their experience?

I am thinking about purchasing one because I do not have the space to
put up dipole of any wave length and the Isotron antenna looked like a
good substitute. My yard is siignificantly square footage
challanged!!!

Thanks for your help and time responding to my question.

Happy Hamming,
Bill
N1QVN

2414. Re: Wireless lan

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 20:16:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q73l20l301tphi9rkh0hma7nn322mj4275@4ax.com>
Source record: 100086

On Wed, 11 Feb 2004 13:31:18 GMT, "MAP" <nospam@terra.es> wrote:

>Hi all,
>I would like to create a wireless lan joining 2 sites that are about 50
>meters (150 feet) apart. The problem is that my neightbor has a BIG
>parabolic antenna only 50 cm from where I have to put mine, and my signal
>has to pass through his antenna (my antenna has to point his antenna, the
>other site is in that direction). Should this be a problem?? I will create
>interferences in his antenna? He will create on mine?? how many dbi need to
>accomplish that?
>
>
>Thanks
>
>MAP
>

Hi OM,

Think in terms of a narrow beam flash light, a nearby beach umbrella,
and the point you want to illuminate. Will the umbrella cast a shadow
over that point? If so, think how bright the flash light has to be so
that you could read a contract's fine print in the shadow on the other
side.

73's
Richard Clark, KB7QHC

2415. Re: capacitor su PCB FR-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 20:19:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mc3l20t25v5crvcmtp6b0o68jh38bbu1s6@4ax.com>
Source record: 100087

On Wed, 11 Feb 2004 16:09:11 +0100, "Massi"
<msignorini@calearotlc.com> wrote:

>Hi to everybody,
>I need to obtain a capacitor in a PCB single sided. Does anybody has a
>formula to calculate the lenght, the width and the shape of it?
>I'm working around 13 MHz (=13000000 Hz...)
>Thanks
>
>Massimo
>
Hi Massimo,

1mm X 1mm square would work quite well at 13MHz. So would 1M X 1M.

How well either works is wholly dependant upon what you intend to use
it for.

73's
Richard Clark, KB7QHC

2416. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 20:25:26 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402111225.4f73981d@posting.google.com>
Source record: 100088

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<402869d3_7@corp.newsgroups.com>...
>
> Hmmmmm, they're not physical and they're not virtual. Leaves only
> one possibility. They are imaginary, i.e. imagined.

Kinda like how you imagine you are saying something important
or intelligent!

S.

2417. Re: capacitor su PCB FR-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 20:39:33 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <9qwWb.148648$U%5.678050@attbi_s03>
Source record: 100089

```
Cb = K1*(er*eo*Thickness*length)/spacing.
Co = K2*eo*thickness*length/spacing

er = relative permitivity of board material
K1 = percentage of E field in dielectric material ~ 30% - 40%
K2 = percentage of E field in air ~ 70% - 60%
eo = relative permitivity of air
thickness = thickness of copper cladding
length = length of parallel paths
spacing = spacing between parallel paths.

Note: there are two capacitors in a single layer PCB. The path through
air and the path through the board material. You sum the total of both
capacitances.

er for most boards is between 2 and 4.

Design your initial capacitor on a sample board and refine the K1, K2
and er terms.

DD

Massi wrote:
> Hi to everybody,
> I need to obtain a capacitor in a PCB single sided. Does anybody has a
> formula to calculate the lenght, the width and the shape of it?
> I'm working around 13 MHz (=13000000 Hz...)
> Thanks
>
> Massimo
>
>
```

2418. SGC Mac 200

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 23:26:35 UTC
From: White Rover <deltapapa1@hotmail.com>
Message-ID: <tezWb.288$bM6.150@newsfep3-gui.server.ntli.net>
Source record: 100091

I am thinking about getting one of the SGC Mac 200 Auto atu's?
What are they like any good please

2419. Re: How 2 do this, lite antenna????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-11 23:44:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402abf4b$1_8@corp.newsgroups.com>
Source record: 100090

lorentzson wrote:
> I would appreiate any and all 'input/info' about light weight antenna
> coax. I need to 'run' about 150 or 200 feet of coax

How about using 300 ohm twin-lead and matching on each end?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2420. HBrew Vertical Insulator Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 00:43:47 UTC
From: Tony Angerame <tangerame@comcast.net>
Message-ID: <2oSdnQwFeevZUbfd4p2dnA@comcast.com>
Source record: 100092

I'm planning on building a home brew 40 meter vertical from 6063 drawn aluminum tubing. My question is what commonly availble pvc tubing, pipe or conduit will slip over or into the base section of the vertical. The final tubing sizes will or can be:

O.D/I.D.

1.250/1.134
1.0/.884

Hope someone has tried this as I don't want to order the tubes then find I need a specially milled base insulator. Doesn't have to be too strong as it will go into a chimney mount. I think it can be done as one of the Butternut antennas has it but as a center insulator.

TIA Tony WA6LZH

2421. protable 6 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 01:43:43 UTC
From: Chauney Baker <kd5jbk@cox.net>
Message-ID: <1SAWb.41005$L_4.17046@okepread01>
Source record: 100093

Hey there all! I have scoured the net loking for a cheap , portable, and decent antenna for 6 meters but have been unable to find such a creature. The primary freq intrest is 50-50.3 for a little CW/SSB work. I ride by bike often in the park and am looking for something that I can string up in a tree fairly easily that doesn't require a whole lot of tuning. any help or plans anyone could provide would be greatly appreciated.

TIA
KD5JBK
Chauncey Baker
EM 15

2422. Re: question about 160m Isotron Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 02:51:46 UTC
From: k9sqg@aol.com
Message-ID: <20040211215146.25740.00001444@mb-m23.aol.com>
Source record: 100094

The laws of physics must prevail...

2423. Re: protable 6 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 03:40:18 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <402AF5A2.40D001B4@cwis.net>
Source record: 100095

Chauney,
Try a dipole. Doesn't get much more portable
than that.
'Doc

2424. Re: question about 160m Isotron Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 03:41:58 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <402AF606.AFE2F4@cwis.net>
Source record: 100096

K9SQG wrote:
>
> The laws of physics must prevail...

...So in other words, you haven't tried one? Or
know of anyone who did?
'Doc

2425. Re: protable 6 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 03:58:38 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <dbtl20ln2ha6ae61tnotdv1vq3kvglpno5@4ax.com>
Source record: 100097

On Wed, 11 Feb 2004 19:43:43 -0600, Chauney Baker <kd5jbk@cox.net>
wrote:

>Hey there all! I have scoured the net loking for a cheap , portable, and
>decent antenna for 6 meters but have been unable to find such a
>creature. The primary freq intrest is 50-50.3 for a little CW/SSB work.
>I ride by bike often in the park and am looking for something that I can
>string up in a tree fairly easily that doesn't require a whole lot of
>tuning. any help or plans anyone could provide would be greatly
>appreciated.
>
>
>TIA
>KD5JBK
>Chauncey Baker
>EM 15

Chauncey,
Considering you're requirements I'd think that narrows the field to a
wire dipole with RG-8X coax. That would be light and easy to string
up with some monofilament fishing line and a couple of sinkers to
sling over the branches. When I've worked portable (driving to the
location) I used to use a Halo, but that required carrying a tripod
mount and a few masts - could take the pleasure out of bike riding.
On my last trip operating portable I went with the dipole and it
performed just fine, in fact I was able to get it up notable higher
than with the 10' of mast I normally use. As for a cheap alternative
- you simple can't beat it. I guess if you got fancy you could make a
wire beam - but it would be challenging to maintain the proper
geomoetry for the elements in relation to each other.

Howard

2426. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 04:22:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402b0064$1_1@corp.newsgroups.com>
Source record: 100098

Dr. Slick wrote:
> Kinda like how you imagine you are saying something important
> or intelligent!

Makes one wonder why something so unimportant is worth the energy
you expend in arguing about it. :-) Sure seems to me that dQ/dt
is negative for 1/2 half of an AC cycle.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2427. Re: Surge Protector ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 06:04:38 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <lf5m20h76ocp152uq7vbb6e5cp6v6eq3ta@4ax.com>
Source record: 100099
Body handling: HTML body converted to readable text

On Mon, 9 Feb 2004 21:42:08 -0500, " Uncle Peter"
wrote:

>
>"americanflag9190" wrote in message
>news:95VVb.453$hR.10699@bgtnsc05-news.ops.worldnet.att.net...
>> If I run an antenna"s coax through a surge protector's coax protector then
>> to my rig would that do anything?
>>
>
>For lightning protection?? No. You need to establish a common ground
>point outside of the house before the coax cable enters the house.
Unfortunately, like many homes I had to put the coax bulkhead with the
PolyPhasers just inside the basement. OTOH things are grounded at the
tower base and there are another set of PolyPhasers at the top of the
tower.

Most of my yard is a ground network consisting of 32 eight foot ground
rods CadWelded to over 600 feet of bare #2 copper.

>Preferably
>having the coaxial arrestors sharing the entry ground rod for the home's
>electrical service.

In most instances the ground for the home electrical service is not
located in a convenient place for a common/central point for the
static, or discharge point. Mine are tied into the ground system, but
the most central point is the tower base. In fact you can't get much
farther from the tower base grounding system than the house electrical
ground.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>

2428. Re: capacitor su PCB FR-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 07:09:48 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <c0f8m1$260$1@grillo.cs.interbusiness.it>
Source record: 100100

"Dave Shrader" <david.shrader@comcast.net> ha scritto nel messaggio
news:9qwWb.148648$U%5.678050@attbi_s03...
> Cb = K1*(er*eo*Thickness*length)/spacing.
> Co = K2*eo*thickness*length/spacing
>
> er = relative permitivity of board material
> K1 = percentage of E field in dielectric material ~ 30% - 40%
> K2 = percentage of E field in air ~ 70% - 60%
> eo = relative permitivity of air
> thickness = thickness of copper cladding
> length = length of parallel paths
> spacing = spacing between parallel paths.
>
> Note: there are two capacitors in a single layer PCB. The path through
> air and the path through the board material. You sum the total of both
> capacitances.
>
> er for most boards is between 2 and 4.
>
> Design your initial capacitor on a sample board and refine the K1, K2
> and er terms.
>
> DD

Thankx Dave, I'll try.

2429. Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 09:54:34 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <402b4d5b$1_1@news.vo.lu>
Source record: 100101

Hi,

Before investing in a future antenna I have discussed on my site about antennas designs, quad vs yagi or log.
http://www.astrosurf.com/lombry/antenna4.htm
I would like to get more information from users. If you used both quad and Yagi, I should be curious to know your opinion about both designs, pro and cons in various conditions of work (installed on the roof, 10m away fro the hosue, 2m high only, etc).

I need for example some more information about the noise generated by a yagi vs a quad or any other relevant information at which I don't think about. For example, at first "sight" the quad generates 5-10 dB less than a quad. Have you some similar information or other with all relevant data (nbr of elements of concerned antennas, wind speed during measurements, location of antenna, etc).

Also, I am interested in the drawbacks of each model (quad, yagi, log). I discuss about this problem too, but I 'd like to go further in this matter. The question is : why did you choose - or didn't choose - this design (another reason than its price with is of course the main factor).

Thanks in advance

Thierry
ON4SKY

2430. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 12:06:43 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <402b6c54$1_2@news.vo.lu>
Source record: 100102

Sorry guys, I mixed 2 problems related to noise.
There are first the noise generated by beam vs quad, but I cannot estimate the noise level, excepting that the quad is more silent under high wind.

The 5-10 dB less for the quad are related to the white noise. I explain. According a swedish OM, it appears also some kind of white electrical noise on a beam compared to a quad. The theory/argument is that the Yagi is more prone to picking it up due to its high impedance at the dipole ends.

Quoted and translated from Swedish:
"The noise I talk about is on eg. 20 m and 5-10dB above the threshold on a yagi but barely audible on a quad. It has always the same strength independent of the time of day, possibly a bit weaker at sunrise. The noise from static discharges are completely different. The noise I am talking about is more "white"."
Quoting the list: "I have performed tests between Yagi/quad specailly on 20 meters. I have used a 5 el monoband yagi and a 6 el monoband quad. The difference is about 5-10dB. The direction seems to be irrelevant, the white noise is everywhere. "

The origin of noise is unclear but thoughts are (and these are speculations): Perhaps the first skip of NVIS-noise from a town nearby? Or that the quad's liftoff angle is different that the yagi's and so picks up anything from another angle?

Can someone confirm this better performing of the quad ?

Thanks
Thierry
ON4SKY

"Thierry" <To answer me in private use
http://www.astrosurf.com/lombry/post.htm> wrote in message
news:402b4d5b$1_1@news.vo.lu...
> Hi,
>
> Before investing in a future antenna I have discussed on my site about
> antennas designs, quad vs yagi or log.
> http://www.astrosurf.com/lombry/antenna4.htm
> I would like to get more information from users. If you used both quad and
>...

2431. Re: balloon antenna website???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 12:12:15 UTC
From: 9V1GO <rmread@starhub.net.sg>
Message-ID: <402b6d71$1@news.starhub.net.sg>
Source record: 100103

www.qsl.net/g4vgo

Any questions, just email.

73

Bob 9V1GO G4VGO

"lorentzson" <lorentzson@lycos.com> wrote in message
news:402d2859.7344452@news.devtex.net...
> I was just wondering if there is a balloon antennae web site, or
> 'group'
> ??? Have a few ideas ,,, but they come with some questions. thaks
> cl 73

2432. Re: protable 6 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 13:05:39 UTC
From: derswede@aol.comspam.com
Message-ID: <20040212080539.21768.00001941@mb-m06.aol.com>
Source record: 100104

<< I have scoured the net loking for a cheap , portable, and
decent antenna for 6 meters but have been unable to find such a creature >>

Build it. Get two RatShak 72" whips, a block of wood or plastic, a piece of coax and some string. Drill two parallel holes in the wood or plastic around 1/2 inch apart the proper diameter for the RT whips. Slide one thru one way, the other pointing the other way. I drilled a hole in the bottom to allow use of an old flash stand...use what ya got (camera tripod, piece of PVC, whatever). I threaded the holes in the RT whips to accept screws....one friend just uses alligator clips to connect the coax. Make a choke balun by winding several turns of the coax about 6" dia., connect everything up and tune for your favorite freq.

The string? Tie it to the middle of the block (I used a screw to secure mine). Once the antenna is resonant on your freq., cut the string to that length....easy means of setting the proper length of the whips. (use knots to indicate other freq. points if for more than one band/freq)

Worked Nebraska, KS, ND and SD one afternoon with this and an MFJ 9406, all while on the App. Trail. Very portable and very cheap.

A

2433. Re: protable 6 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 14:19:18 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <GXLWb.5359$Lw3.1108@nwrddc02.gnilink.net>
Source record: 100105

"Chauney Baker" <kd5jbk@cox.net> wrote in message
news:1SAWb.41005$L_4.17046@okepread01...
> Hey there all! I have scoured the net loking for a cheap , portable, and
> decent antenna for 6 meters but have been unable to find such a
> creature. The primary freq intrest is 50-50.3 for a little CW/SSB work.
> I ride by bike often in the park and am looking for something that I can
> string up in a tree fairly easily that doesn't require a whole lot of
> tuning. any help or plans anyone could provide would be greatly
> appreciated.
>

You may wish to look at:
http://parelectronics.com/end_fedz.htm

or

http://parelectronics.com/stress_moxon.htm

The latter is featured in a review in QST March issue.

73,

Dale W4OP
>
> TIA
> KD5JBK
> Chauncey Baker
> EM 15

2434. Re: question about 160m Isotron Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 14:30:36 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <402B8E0A.9060909@frontiernet.net>
Source record: 100106

William E. Verge wrote:
>
> Hi All,
> I would like to know if any of you have used one of the Isotron
> Antennas for 160 m?
>
> What have been your experiences both pro and con? Or if you know of
> someone that has used one what has been their experience?

I have one of the older versions, about 30 inches tall, currently in storage while I transition from renting to owning again but I've used it with some success.

The manufacturer recommends putting it on a tall (40-50 feet?) mast, all I had was about 25 feet. After tuning it to resonate at about 1900 kHz I used a noise bridge and found a radiation resistance of around 25 ohms non reactive. I wound a 2:1 transformer that went at the coax connector on one of the capacitor plates. After that I had an SWR of 1.7:1 or less over about 1850-1930 kHz, a tuner handled the rest of the band. I found that leaving off the wire that grounds it to the mast was necessary.

How do I define 'some success'? Working JA's and KH6's from Colorado with 100 watts a couple hours before sunrise and being able to work most stations within a couple hundred miles a few hours after sunset.

You have to tune it, you can't just put it together and expect it to work. My tuner wouldn't handle the 25 ohm load at 160m without the xfmr, maybe yours will.

From the negativity these inspire you could probably pick one up used on eBay pretty cheap, with a little work it could be worth it.

73!
Galen, W8LNA

2435. Re: protable 6 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 15:28:56 UTC
From: Wedgew <wedgew@rochester.rr.com>
Message-ID: <YYMWb.12857$um1.11987@twister.nyroc.rr.com>
Source record: 100107

I'm currently making one of the antennae on
http://www.qsl.net/g3pto/6m_dipole.html
A folded dipole. with somewhat larger bandwidth than 1/4 wave
dipole.

Howard wrote:
> On Wed, 11 Feb 2004 19:43:43 -0600, Chauney Baker <kd5jbk@cox.net>
> wrote:
>
>
>>Hey there all! I have scoured the net loking for a cheap , portable, and
>>decent antenna for 6 meters but have been unable to find such a
>>creature. The primary freq intrest is 50-50.3 for a little CW/SSB work.
>>I ride by bike often in the park and am looking for something that I can
>>string up in a tree fairly easily that doesn't require a whole lot of
>>tuning. any help or plans anyone could provide would be greatly
>>appreciated.
>>
>>
>>TIA
>>KD5JBK
>>Chauncey Baker
>>EM 15
>
>
> Chauncey,
> Considering you're requirements I'd think that narrows the field to a
> wire dipole with RG-8X coax. That would be light and easy to string
> up with some monofilament fishing line and a couple of sinkers to
> sling over the branches. When I've worked portable (driving to the
> location) I used to use a Halo, but that required carrying a tripod
> mount and a few masts - could take the pleasure out of bike riding.
> On my last trip operating portable I went with the dipole and it
> performed just fine, in fact I was able to get it up notable higher
> than with the 10' of mast I normally use. As for a cheap alternative
> - you simple can't beat it. I guess if you got fancy you could make a
> wire beam - but it would be challenging to maintain the proper
> geomoetry for the elements in relation to each other.
>
> Howard

--
OK!
What GeNiuS pUt thE CaPlocK KEy
RiGhT NeXt to The Shft KEY?

Seek not to confound me as I am dim-witted and slow of study.

Wedge KC2GMJ

2436. FT: Mosley Pro-96 Multi-band Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 15:43:37 UTC
From: "Garry W. Woods" <kb8sgo@worldnet.att.net>
Message-ID: <JaNWb.10768$hR.314165@bgtnsc05-news.ops.worldnet.att.net>
Source record: 100108

Mosley Pro-96 Beam, (9) elements on 36' boom, 10-12-15-17-20-40meters,
antenna spec's www.mosley-electronics.com/amateur.htm. Pick-up only
Cleveland, TN or Dalton, GA Hamfest
Garry KB8SGO

2437. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 16:51:20 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <caOWb.162364$U%5.725066@attbi_s03>
Source record: 100109

Bill Turner wrote:

SNIP

> And finally, don't be persuaded by that old saying about how a two
> element quad is equal to a three element yagi. So what? A three
> element yagi is FAR easier to build than a two element quad.
>
> The bottom line is this: Once the quad is up in the air, it will
> generally outperform a yagi of equivalent cost. The problems lie in
> getting it up in the air and keeping it there.
>
> If I had it all to do over again, starting from scratch, I probably
> would use a yagi.
>
> --
> 73, Bill W6WRT
> QSLs via LoTW

And, I would use a Log Periodic!! I give up about 1 dB in gain and acquire a 13.5 MHz to 33 MHz broadband antenna, no traps, full legal power handling capability and a VSWR <2:1 across the full range. That means 20, 17, 15, 12 and 10 meters all in ONE Beam.

W1MCE

2438. Two percent and 14 percent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 17:24:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c0gcsqogv1@sparta.btinternet.com>
Source record: 100110

I was about to reply to an e-mail query but lost ALL the correspondence.

Dear ?

I hope the following suffices -

Agreed, an increase in efficiency from 2 percent to 14 percent does, in some circumstances, corresponds to about 8.5 dB change in level.

But when, whatever the actual power output is when the efficiency is 2 percent, is increased by BY 14 percent it corresponds only to a 0.6 dB change in level.

But it's hardly worth discussing. All ball-park stuff anyway. To answer your other question would involve writing a book on the subject - at my time of life? ;o)

Incidentally, the improvement in radiating efficiency due to exchanging a BOTTOM loading coil with a top hat can be studied by downloading program TOPHAT2. A mobile top hat nearly always wins but suffers from its mechanical disadvantages.

Program LOADCOIL deals with a variable-height loading (sliding) coil to maximise efficiency.

I do not have a program which covers a variable-height loading-coil plus top hat for the simple reason that it would not be worth the extrordinary amount of trouble of writing one. What's a few 1/10ths of a dB anyway?

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

2439. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 17:53:11 UTC
From: KA9CAR <ka9car@a_r_r_l_.net>
Message-ID: <c0gei8$2g89$1@news1.tribune.com>
Source record: 100111

I have a few thoughts.
I used a 3 / 3 Yagi for 10 years.

I currently have a 5 band 2 element Quad, one feedline to a switch box on
the boom, then series sections to match.

I chose the quad to minimize turning radius. My Yagi hung over the fence
line to the neighbor, the quad does not.

The verticle size is a challenge.

My local tower ordinance is 35 feet to the top of the structure. The top
of the quad is the top of the structure.

I had the tower inspected before I put up the quad.

Standing on my Garage roof I can adjust the 20 meter elements.

An effect that I notice, that I did not have with the Yagi, is that the
tuning changes based on the direction that the
quad is pointed. I attribute this to the proximity to the aluminum sided
garage, and a couple of trees.

Visual impact has not been an issue. It is shorter than the trees, which is
probably why I have not had any city trouble with the
hieght of the top of the quad.

"Thierry" <To answer me in private use
http://www.astrosurf.com/lombry/post.htm> wrote in message
news:402b4d5b$1_1@news.vo.lu...
> Hi,
>
> Before investing in a future antenna I have discussed on my site about
> antennas designs, quad vs yagi or log.
> http://www.astrosurf.com/lombry/antenna4.htm
> I would like to get more information from users. If you used both quad and
> Yagi, I should be curious to know your opinion about both designs, pro and
> cons in various conditions of work (installed on the roof, 10m away fro
the
> hosue, 2m high only, etc).
>
> I need for example some more information about the noise generated by a
yagi
> vs a quad or any other relevant information at which I don't think about.
> For example, at first "sight" the quad generates 5-10 dB less than a quad.
> Have you some similar information or other with all relevant data (nbr of
> elements of concerned antennas, wind speed during measurements, location

of
> antenna, etc).
>
> Also, I am interested in the drawbacks of each model (quad, yagi, log). I
> discuss about this problem too, but I 'd like to go further in this
matter.
> The question is : why did you choose - or didn't choose - this design
> (another reason than its price with is of course the main factor).
>
> Thanks in advance
>
> Thierry
> ON4SKY
>
>

2440. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 18:39:06 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <m3u11wuoqd.fsf@qmc.ph.msstate.edu>
Source record: 100112

>Quad advantages:
>
>1. Simple. Only wires and coax. No baluns, traps, gammas, hairpins,
>etc. Full legal power continuously with no problems.

A yagi can be made with a direct dipole feed, which is very simple. BOTH
the quad and yagi need a balun.

>2. Broadband. Covers 20/15/10 with less than 2:1 SWR, even on 10.

See Cebik's studies of quads (www.cebik.com). Quads give a very
narrow front/back bandwidth. Not enough even to cover most amateur
bands with >= 20 dB F/B.

>3. Light. For a given level of performance, a quad should be a bit
>lighter than a yagi.

True for a 2 element quad (boomless), but not with more elements. Look
at some of the weights at http://www.mgs4u.com/catalog/.

Torsten
N4OGW

2441. Re: capacitor su PCB FR-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 18:50:59 UTC
From: k7itm@aol.com
Message-ID: <3200347.0402121050.6ba6bdfb@posting.google.com>
Source record: 100113

I know there are some pretty good PCB-capacitor aplets on the web.
Try a Google or similar search for them.

"RFSim99" is free for the downloading and has lots of tools, including
a component calculator that covers, among other components,
capacitors. It lets you just select FR4 dielectric (or any of several
others, or your specific relative dielectric constant), thickness, and
plate area, and will tell you the capacitance. Beware of fringing
effects, though, if your capacitor plate dimensions are not large
compared with the board thickness. RFSim99 doesn't do anything to
account for fringing as far as I can see. The capacitance is mainly
dependent on the plate area, but beware also of making one that is
long and narrow, because it will act like a transmission line. Also,
a problem with FR4 is that the dielectric constant is not well
controlled, so the capacitance may not be very consistent from
manufacturer to manufacturer.

Cheers,
Tom

"Massi" <msignorini@calearotlc.com> wrote in message
news:<c0dp1ncja1@fata.cs.interbusiness.it>...
> Hi to everybody,
> I need to obtain a capacitor in a PCB single sided. Does anybody has a
> formula to calculate the lenght, the width and the shape of it?
> I'm working around 13 MHz (=13000000 Hz...)
> Thanks
>
> Massimo

2442. Re: Wireless lan

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 19:33:34 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <402bd415.173698500@news.galilei.com>
Source record: 100114

Hi Map

Why go to all of that expense?

Within any given residential or commercial block, there are many 'dead (as far as for phone to switch)' phone pairs. Some of these can be utilized to connect a network between two homes or two offices, or sometimes between home and office.
Two of my Uncles homes and their offices were connected this way and they had no troubles from it.

TTUL
Gary

2443. Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 19:57:43 UTC
From: Mike Coslo <mjc5@psu.edu>
Message-ID: <402BDAB7.4030401@psu.edu>
Source record: 100115

I'm not sure if this is the right place to ask, but here goes:

Are there any good references to the effects of shielding effectiveness as related to shield coverage? I want to make a shield for HF frequencies, and the most convenient method would be to use wire cloth on one side, with the other 5 sides of the box made of solid aluminum.

- Mike KB3EIA -

2444. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 20:03:07 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402BDBFB.74BEAEF1@uci.edu>
Source record: 100117

Cecil Moore wrote:
> Sure seems to me that dQ/dt
> is negative for 1/2 half of an AC cycle.

So then according to Shriners convention, AC would be flowing away from the load and sloshing up against the source? (hic)

:-)

73 de ac6xg

2445. Re: Wireless lan

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 20:08:52 UTC
From: kashe@rahul.net
Message-ID: <e4nn20l5809h6dpbgo4iljjctp2ccgpnlf@4ax.com>
Source record: 100116

On 12 Feb 2004 14:33:34 EST, raiar@bbs.galilei.com.nospam (Gary V. Deutschmann, Sr.) wrote:

>Hi Map
>
>Why go to all of that expense?
>
>Within any given residential or commercial block, there are many 'dead
>(as far as for phone to switch)' phone pairs. Some of these can be
>utilized to connect a network between two homes or two offices, or
>sometimes between home and office.
>Two of my Uncles homes and their offices were connected this way and
>they had no troubles from it.
>
>TTUL
>Gary

Depending on who your local telco is, it can be nearly imossible to get them to hook you up to these dry pairs. It used to be common; then the telcos decided they'd rather not make this kind of cheap connectivity available to the general public. I believe I've heard of some people persuading the telco to set them up by saying it was to be used for an alarm system between the two ends.

2446. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 20:20:16 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <402BE000.5BA6F4F6@cwis.net>
Source record: 100118

What's a, "narrow front/back bandwidth"?
'Doc

2447. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 20:20:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pgnn20ludln1vaj36nd9rrtjuvgqcv07u3@4ax.com>
Source record: 100019

On Thu, 12 Feb 2004 14:57:43 -0500, Mike Coslo <mjc5@psu.edu> wrote:

>I'm not sure if this is the right place to ask, but here goes:
>
>Are there any good references to the effects of shielding effectiveness
>as related to shield coverage? I want to make a shield for HF
>frequencies, and the most convenient method would be to use wire cloth
>on one side, with the other 5 sides of the box made of solid aluminum.
>
> - Mike KB3EIA -

Hi Mike,

That is called a Faraday Shield (more or less). You need only
determine the penetration depth of the materials used and the
frequency you want to shield. Handbooks (for RF Engineer) usually
have such tables by material.

Oh, all bets are off if you penetrate the shield for any reason (like
for a wire lead, or a viewing port, or....). The wails of grief and
shock at poor effectiveness are numerous from those who expect a 100%
cure from a 99% solution (-20dB generally isn't all that good).

73's
Richard Clark, KB7QHC

2448. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 20:52:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402be7db$1_2@127.0.0.1>
Source record: 100020

Jim Kelley wrote:
> Cecil Moore wrote:
>
>>Sure seems to me that dQ/dt
>>is negative for 1/2 half of an AC cycle.
>
> So then according to Shriners convention, AC would be flowing away from
> the load and sloshing up against the source? (hic)

Not sloshing up against the source - forced back through the source and out the other source terminal (just like a battery). Do you understand what happens when you reverse the polarity of a battery in a DC circuit? Current flows in the opposite direction. AC is somewhat similar to reversing the DC battery polarity.

In any one AC supply wire, AC current flows away from the load toward the source 1/2 of the time. Electrons flow back and forth through the source. Electrons flow back and forth through the load. The electrons near the source may never make it to the RF load and vice versa. The driving EMF changes directions every 1/2 cycle.

It appears that the DC model adapted for AC has seduced a lot of people into ignoring the most basic characteristics of an AC signal which is somewhat like reversing the polarity on a DC battery.
--
73, Cecil, W5DXP

2449. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 21:03:16 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402121303.6e6c36dc@posting.google.com>
Source record: 100021

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<402b0064$1_1@corp.newsgroups.com>...
> Dr. Slick wrote:
> > Kinda like how you imagine you are saying something important
> > or intelligent!
>
> Makes one wonder why something so unimportant is worth the energy
> you expend in arguing about it. :-) Sure seems to me that dQ/dt
> is negative for 1/2 half of an AC cycle.

I think every so often, it's important to point out how
full of sh** Cecil Moore really is...

S.

2450. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 21:18:22 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402BED9E.7BDDD398@uci.edu>
Source record: 100024

Cecil Moore wrote:
> It appears that the DC model adapted for AC has seduced a lot of
> people into ignoring the most basic characteristics of an AC signal
> which is somewhat like reversing the polarity on a DC battery.

Cecil, OM. The point you so hard-headedly and steadfastly refuse to acknowledge is that YOU are the one trying to employ a "DC model" when describing alternating current. AC doesn't go into one end of something and then come out the other end of that thing. If you would simply acknowledge that fact then maybe we wouldn't have to endure any more of your 2nd Grade electricity tutorials.

Okay?

73 de AC6XG

2451. Re: Wireless lan

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 21:22:23 UTC
From: dplatt@radagast.org
Message-ID: <102nrkfsdhrd9a2@corp.supernews.com>
Source record: 100022

In article <e4nn20l5809h6dpbgo4iljjctp2ccgpnlf@4ax.com>,
<kashe@rahul.net> wrote:

> Depending on who your local telco is, it can be nearly
>imossible to get them to hook you up to these dry pairs. It used to be
>common; then the telcos decided they'd rather not make this kind of
>cheap connectivity available to the general public. I believe I've
>heard of some people persuading the telco to set them up by saying it
>was to be used for an alarm system between the two ends.

Yes, "burglar alarm" and "dry pair" seems to be the set of magic
phrases to use.

I've heard of people using this sort of wire pair, with a couple of
off-the-shelf SDSL modems, to create a very effective medium-haul data
link between buildings a few miles apart.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2452. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 21:26:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402befc2$1_2@127.0.0.1>
Source record: 100023

Dr. Slick wrote:
> I think every so often, it's important to point out how
> full of sh** Cecil Moore really is...

When you cannot present a rational argument, mount an ad hominem attack? What is it that you disagree with me about? Do you think AC current doesn't reverse direction every 1/2 cycle?
--
73, Cecil, W5DXP

2453. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 22:11:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402bfa56_2@127.0.0.1>
Source record: 100025

Jim Kelley wrote:

> Cecil Moore wrote:
>>It appears that the DC model adapted for AC has seduced a lot of
>>people into ignoring the most basic characteristics of an AC signal
>>which is somewhat like reversing the polarity on a DC battery.
>
> Cecil, OM. The point you so hard-headedly and steadfastly refuse to
> acknowledge is that YOU are the one trying to employ a "DC model" when
> describing alternating current. AC doesn't go into one end of something
> and then come out the other end of that thing. If you would simply
> acknowledge that fact then maybe we wouldn't have to endure any more of
> your 2nd Grade electricity tutorials.

Here's a snapshot of the current maximum points, including direction of current flow, in a 2 WL matched transmission line. The next snapshot is the same thing 1/2 cycle later. Note: Current is going into the bottom of the source and coming out of the top. Same for the load.

```
*->-----<-----><-----<-----><-*
| |
Source Load
| |
*-<----->-----<-----><-----<-*

*-<----->-----<-----><-----<-*
| |
Source Load
| |
*->-----<-----><-----<-----><-*
```

1/2 cycle later: Current is flowing out of the bottom and into the top of the source. Same for the load.

The transmission line is 2 wavelengths long. That means that instantaneous current in the transmission line is simultaneously flowing toward the load and toward the source at different points up and down the line.

AC is akin to reversing the polarity of a battery. What happens to the direction of current flow through the load when the polarity of a battery is reversed? Don't you realize that if current is flowing out of the '+' terminal of a battery, that same current is flowing into the '-' terminal?
--
73, Cecil, W5DXP

2454. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 22:13:40 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040212171340.13087.00002165@mb-m02.aol.com>
Source record: 100026

>AC doesn't go into one end of something
>and then come out the other end of that thing. If you would simply
>acknowledge that fact then maybe we wouldn't have to endure any more of
>your 2nd Grade electricity tutorials.
>
>Okay?
>
>73 de AC6XG
>

So when I plug my toaster into the AC outlet the current doesn't go into one end? The same with transmitter and antenna?

Live and learn (garbage)?

Yuri

2455. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 22:18:45 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402BFBC5.70FFB93A@uci.edu>
Source record: 100027

Cecil Moore wrote:

> Don't you realize that if current is flowing out
> of the '+' terminal of a battery, that same current is flowing into the
> '-' terminal?

Everybody realizes that Cecil. You don't need to explain. You need to
understand.

Thanks though.

73, Jim AC6XG

2456. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 22:31:29 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402BFEC1.2656808E@uci.edu>
Source record: 100028

Yuri Blanarovich wrote:
> So when I plug my toaster into the AC outlet the current doesn't go into one
> end?

Have you got standing waves on your toaster, Yuri?

73, Jim AC6XG

2457. Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 22:42:39 UTC
From: Pete Holden <peter.holden@comcast.net>
Message-ID: <zjTWb.290841$I06.2983429@attbi_s01>
Source record: 100029

On my Icom 756 spectrum scope I'm getting S9 peaks every 2kHz or so all across the HF spectrum from 3mHz to 30mHz. This doesn't look at all like QRN since it's regular and discrete and they're narrow signal peaks, narrower even than a ham cw signal, all peaks the same strength. When I switch to a vacant antenna position, or to my dummy load, there is nothing, so I'm assuming it isn't coming over the AC line. The noise signal is stronger on my vertical antenna than on my horizontal loop.

I've seen this before, intermittently -- one minute on, two min off, 20 seconds on, etc. But, today it's been going on for at least a couple of hours.

Ideas anyone?

Thanks, Pete

2458. Re: Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 23:03:06 UTC
From: Dave <noone@nowhere.com>
Message-ID: <FP2dnfiCHpiom7HdRVn-gg@crocker.com>
Source record: 100030

"Pete Holden" <peter.holden@comcast.net> wrote in message
news:zjTWb.290841$I06.2983429@attbi_s01...
> On my Icom 756 spectrum scope I'm getting S9 peaks every 2kHz or so all
> across the HF spectrum from 3mHz to 30mHz. This doesn't look at all like
> QRN since it's regular and discrete and they're narrow signal peaks,
> narrower even than a ham cw signal, all peaks the same strength. When I
> switch to a vacant antenna position, or to my dummy load, there is
nothing,
> so I'm assuming it isn't coming over the AC line. The noise signal is
> stronger on my vertical antenna than on my horizontal loop.
>
> I've seen this before, intermittently -- one minute on, two min off, 20
> seconds on, etc. But, today it's been going on for at least a couple of
> hours.
>
> Ideas anyone?
>
> Thanks, Pete
>
>

start turning things off to be sure it isn't in your house.

what does it sound like? you can tell a lot from the sound of the noise,
often more than a spectrum scope will tell you. is it raspy, buzzy, line
frequency modulated, narrow clean birdies? the quick cycling would sound
like a heater control, electric blanket, fish tank, something like that...
could it have become stuck? is someone boiling their fish tank? but the
2khz spacing would be more like a computer birdie from a keyboard or
monitor, but they usually aren't over such a wide range, and probably
wouldn't be intermittent like you had before.

2459. WTB:VHF ENGINEERING

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 23:07:47 UTC
From: Charlie <okiemansc@yahoo.com>
Message-ID: <TGTWb.28118$EW.11935@okepread02>
Source record: 100031
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

I am interested in buying VHF Engineering boards and parts. Will consider
anything from part to full units.Projects/basket cases fine.
State price and condition.
THANKS !!

2460. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 23:10:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402c08c4$1_4@corp.newsgroups.com>
Source record: 100032

Yuri Blanarovich wrote:
> Was there problem or any negative effects from diathermy?

I know someone who had diathermy and died 50 years later.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2461. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 23:15:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402c09e0_4@corp.newsgroups.com>
Source record: 100033

Jim Kelley wrote:

> Cecil Moore wrote:
>>Don't you realize that if current is flowing out
>>of the '+' terminal of a battery, that same current is flowing into the
>>'-' terminal?
>
> Everybody realizes that Cecil. You don't need to explain. You need to
> understand.

Your attitude toward AC tells me that you don't realize that, Jim.
An AC source is like a battery that changes its '+' terminal to a
'-' terminal every 1/2 cycle in accordance with a sinusoidal magnitude.
Just because you use a Sharpie pen to mark one terminal of an AC source
as the '+' terminal, doesn't mean the current out of that terminal
is always positive. Good Grief - half the time it's negative!
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2462. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 23:15:21 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <m3k72rsxdi.fsf@qmc.ph.msstate.edu>
Source record: 100035

> What's a, "narrow front/back bandwidth"?

The pattern (usually quantified by font/back ratio) only remains good over
a narrow frequency range.

Torsten
N4OGW

2463. Re: Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 23:18:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402c0abe$1_4@corp.newsgroups.com>
Source record: 100034

Pete Holden wrote:
> I've seen this before, intermittently -- one minute on, two min off, 20
> seconds on, etc. But, today it's been going on for at least a couple of
> hours.

It's probably some sort of controller like a thermostat or dimmer.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2464. Re: Wow Cecil!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 23:29:04 UTC
From: mustang <adrian@ratherbeflying.net>
Message-ID: <402c0c7b_3@news.chariot.net.au>
Source record: 100036

Hmm, an interesting approach!
But its all about trying things!
I'll give that one a go too. It doesn't take long to wind & try!
Adrian.

>>
>> Here's what I would try as a wild hair experiment. Wind the electrical
>> 1/2WL helix and find the frequency at which the impedance is purely
>> resistive and
>> maximum. A GDO should accomplish that. That's the resonant frequency
>> for an
>> end-fed 1/2WL monopole. Use some spacing and wind the remainder of the
>> coil
>> opposite to the original, i.e. CW Vs CCW. This would theoretically put
>> the
>> fields in phase on each side of that current node. It sounds very
>> tricky and I have never heard of it being done before, but it might work.
>
>
> And of course, this would work perfectly on only a single frequency. Off
> to each side of that frequency, the problem would again manifest itself.

2465. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-12 23:30:36 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402C0C9C.27C14B02@uci.edu>
Source record: 100037

Cecil Moore wrote:
> Just because you use a Sharpie pen to mark one terminal of an AC source
> as the '+' terminal, doesn't mean the current out of that terminal
> is always positive.

Hey, you're the one who told the story about the 'hot wire' being the
one that the AC comes out of, not me.

:-)

73 de ac6xg

2466. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 00:03:07 UTC
From: Mike Coslo <mcoslo@enoughalreadyadelphia.net>
Message-ID: <zpOdnWpWN_ynibHdRVn-jQ@adelphia.com>
Source record: 100038

Yuri Blanarovich wrote:
>>How about all the people who once swore by diathermy treatments
>>offered by many doctors? Are they still available?
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>>
>>
>
>
> I dunno. Ask them?
> I am using magnetothermia and it helps.

Hot magnets??? ;^)

- Mike KB3EIA -

2467. Re: Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 00:32:38 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <BcGdna8mjZG3hrHdRVn-jA@comcast.com>
Source record: 100039

I am assuming you are listening on SSB. Switch the radio to AM, and see if it has a 60/120 Hz sound to it. I had something like that, 50 KHz all across 6m. Turned out to be a bad 60 amp main fuse.

Tam/WB2TT
"Pete Holden" <peter.holden@comcast.net> wrote in message news:zjTWb.290841$I06.2983429@attbi_s01...
> On my Icom 756 spectrum scope I'm getting S9 peaks every 2kHz or so all
> across the HF spectrum from 3mHz to 30mHz. This doesn't look at all like
> QRN since it's regular and discrete and they're narrow signal peaks,
> narrower even than a ham cw signal, all peaks the same strength. When I
> switch to a vacant antenna position, or to my dummy load, there is nothing,
> so I'm assuming it isn't coming over the AC line. The noise signal is
> stronger on my vertical antenna than on my horizontal loop.
>
> I've seen this before, intermittently -- one minute on, two min off, 20
> seconds on, etc. But, today it's been going on for at least a couple of
> hours.
>
> Ideas anyone?
>
> Thanks, Pete
>
>

2468. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 00:39:26 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040212193926.13001.00002308@mb-m02.aol.com>
Source record: 100040

>
>I know someone who had diathermy and died 50 years later.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>
>

At age of 95?
Seriously, are there any known ill effects from diathermy?

Yuri

2469. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 00:42:10 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040212194210.13001.00002309@mb-m02.aol.com>
Source record: 100041

>
>Yuri Blanarovich wrote:
>> So when I plug my toaster into the AC outlet the current doesn't go into
>one
>> end?
>
>Have you got standing waves on your toaster, Yuri?
>
>73, Jim AC6XG
>

It's always standing. Sometimes I use laying on the side if I want warm up pizza slice. That would make laying waves?

So when waves are standing, they don't go to antenna? Antenna don't radiate? Cool dude!

Yuri

2470. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 00:45:50 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402C1E3E.D633877@uci.edu>
Source record: 100042

Yuri Blanarovich wrote:
> It's always standing. Sometimes I use laying on the side if I want warm up
> pizza slice. That would make laying waves?
>
> So when waves are standing, they don't go to antenna? Antenna don't radiate?
> Cool dude!
>
> Yuri

See how easy it is to get the flow of current mixed up with the flow of energy? That's what Cecil's been doing.

Anyway, I enjoy your sense of humor, Yuri.

73, Jim AC6XG

2471. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 01:18:52 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <0CVWb.14713$Y95.10896@newssvr22.news.prodigy.com>
Source record: 100043

"KA9CAR" <ka9car@a_r_r_l_.net> wrote in message
news:c0gei8$2g89$1@news1.tribune.com...

...

> My local tower ordinance is 35 feet to the top of the structure. The
top
> of the quad is the top of the structure.
>
> I had the tower inspected before I put up the quad.

So, your tower is 35 feet tall, right? Good...

--
Steve
KI5YG
.

2472. Re: need to change radiator size

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 02:52:39 UTC
From: Luddite <a2k@ripco.com>
Message-ID: <c0he5n$n86$1@e250.ripco.com>
Source record: 100044

Richard Clark <kb7qhc@comcast.net> wrote:

> Spend $3.98 for an adapter.

I was right and wrong about the dish,I borrowed a adapter to try
as is and got poor results. so I took the feed apart and found out
what I thought was the radiator (the 3 sided aluminum piece) was just
a passive radiator,no actual connection. there is a dipole inside the
housing whose elements are just over 25mm. assuming its 1/4 wave that
puts it at 3ghz.. the 100mm dimension of the passive part makes sense
in light of this,it needs work but is still useable..

2473. uh oh broadband power line coming

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 03:26:35 UTC
From: bb <bb@private.com>
Message-ID: <402C43EA.E25BC4CF@private.com>
Source record: 100045

http://www.cnn.com/2004/TECH/ptech/02/12/fcc.internet.ap/index.html

2474. Re: uh oh broadband power line coming

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 04:23:08 UTC
From: Ian <krb@lycos.co.uk>
Message-ID: <GiYWb.4652$cb7.36016@newsfep4-glfd.server.ntli.net>
Source record: 100046

I think you posted the wrong link.

"bb" <bb@private.com> wrote in message news:402C43EA.E25BC4CF@private.com...
> http://www.cnn.com/2004/TECH/ptech/02/12/fcc.internet.ap/index.html
>

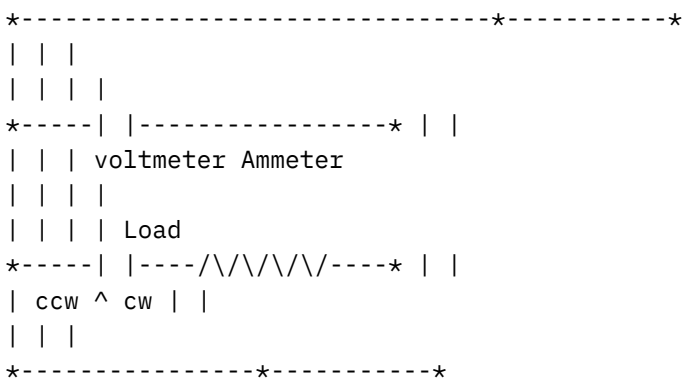
2475. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 04:41:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402c564b_1@corp.newsgroups.com>
Source record: 100047

Jim Kelley wrote:
> Cecil Moore wrote:
>>Just because you use a Sharpie pen to mark one terminal of an AC source
>>as the '+' terminal, doesn't mean the current out of that terminal
>>is always positive.
>
> Hey, you're the one who told the story about the 'hot wire' being the
> one that the AC comes out of, not me.

You apparently would be surprised to know that the "hot wire" in
your house has a negative voltage on it half the time. Current
flows out of the "hot wire" half the time and flows into the
"hot wire" half the time. That's simply the nature of AC.

There's no "hot wire" in a balanced RF transmission line.



There are two batteries and a potentiometer hooked up as shown. With the pot in
the fully ccw position, what does the voltmeter read? Which way is the current
flowing?

With the pot in the fully cw position, what does the voltmeter read? Why way is
the current flowing?

It doesn't take a genius to see that if the pot is turned in a certain repetitive
way, the voltage across the load could be sinusoidal with the current reversing
its direction every 1/2 cycle. There's only two DC batteries and a magnitude pot.
Where's the phase?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2476. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 04:48:03 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040212234803.24647.00001875@mb-m13.aol.com>
Source record: 100048

>
>See how easy it is to get the flow of current mixed up with the flow of
>energy? That's what Cecil's been doing.
>
>Anyway, I enjoy your sense of humor, Yuri.
>
>73, Jim AC6XG
>
>
>

Applying for further education:
so what is flowing energy, no current flowing?
This is series! (As freepers would say)

double BUm

2477. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 05:13:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402c5dc0$1_1@corp.newsgroups.com>
Source record: 100050

Yuri Blanarovich wrote:

>>See how easy it is to get the flow of current mixed up with the flow of
>>energy? That's what Cecil's been doing.

Jim must have just realized that is what he has been doing wrong and
is now blaming me for it. Energy moves from an RF source to an RF load.
Current moves back and forth through the source. Current moves back
and forth through the load. The electrons are not lost from the
system. They just move back and forth coherent with the RF frequency.
Electrons possess charge. Current is the time derivative of that
charge. When the movement of charge changes direction, so does the
current.

> Applying for further education:
> so what is flowing energy, no current flowing?

If AC current always flows toward the load in one wire of a balanced
transmission line, which way is the current flowing in the other wire?
:-) If it is also flowing toward the load, it is common-mode current,
not differential.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2478. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 05:16:39 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402122116.26268af6@posting.google.com>
Source record: 100049

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<402befc2$1_2@127.0.0.1>...
> Dr. Slick wrote:
> > I think every so often, it's important to point out how
> > full of sh** Cecil Moore really is...
>
> When you cannot present a rational argument, mount an ad
> hominem attack? What is it that you disagree with me about?
> Do you think AC current doesn't reverse direction every 1/2
> cycle?

I think you reverse your argument every 1/2 cycle!

S.

2479. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 12:06:56 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <y53Xb.71633$fD.46953@fed1read02>
Source record: 100051

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:pgnn20ludln1vaj36nd9rrtjuvgqcv07u3@4ax.com...
> On Thu, 12 Feb 2004 14:57:43 -0500, Mike Coslo <mjc5@psu.edu> wrote:
>
> >I'm not sure if this is the right place to ask, but here goes:
> >
> >Are there any good references to the effects of shielding effectiveness
> >as related to shield coverage? I want to make a shield for HF
> >frequencies, and the most convenient method would be to use wire cloth
> >on one side, with the other 5 sides of the box made of solid aluminum.
> >
> > - Mike KB3EIA -
>
> Hi Mike,
>
> That is called a Faraday Shield (more or less). You need only
> determine the penetration depth of the materials used and the
> frequency you want to shield. Handbooks (for RF Engineer) usually
> have such tables by material.
>
> Oh, all bets are off if you penetrate the shield for any reason (like
> for a wire lead, or a viewing port, or....). The wails of grief and
> shock at poor effectiveness are numerous from those who expect a 100%
> cure from a 99% solution (-20dB generally isn't all that good).
>
> 73's
> Richard Clark, KB7QHC

Remember to use "hardware cloth" for the screen. This material is galvanized steel, and the galvanizing "solders" every crossover point. !/4" mesh is fine for HF. Your problems will be the penetrations, as Mike described. Also, you will need to bond the cloth to the aluminum. Soldering would be best, but that would only work for a copper or tin-plated steel chassis. You will have to clamp the cloth to the chassis, possibly using lengths of bar stock with screws every inch or so. Don't forget to polish the aluminum area that contacts the cloth just before assembly. Get it down to shiny aluminum; aluminum oxide is an insulator, and you need good conductivity across the joint.

Ed

2480. Re: uh oh broadband power line coming

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 12:20:30 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <102pgcaml25e507@corp.supernews.com>
Source record: 100052

SB QST @ ARL $ARLB005
ARLB005 FCC okays BPL proposal

ZCZC AG05
QST de W1AW
ARRL Bulletin 5 ARLB005
From ARRL Headquarters
Newington CT February 12, 2004
To all radio amateurs

SB QST ARL ARLB005
ARLB005 FCC okays BPL proposal

The FCC has unanimously approved a Notice of Proposed Rule Making (NPRM) to deploy Broadband over Power Line (BPL). The NPRM is the next step in the BPL proceeding, which began last April with a Notice of Inquiry that attracted more than 5100 comments--many from the amateur community. The FCC did not propose any changes in Part 15 rules governing unlicensed devices, but said it would require BPL providers to apply ''adaptive'' interference mitigation techniques to their systems. An ARRL delegation that included President Jim Haynie, W5JBP, attended the FCC open meeting in Washington, and later expressed disappointment in the FCC action.

''The Commission clearly recognized that the existing Part 15 emission limits are inadequate to stop interference, but it's placing the burden of interference mitigation on the licensed user that's supposed to be protected,'' said ARRL CEO David Sumner, K1ZZ.

Sumner said that if the FCC really believed current Part 15 emission limits were sufficient, it would not have had to require that BPL providers institute interference mitigation systems. The FCC has not yet released the actual NPRM, and a presentation by the FCC's Office of Engineering and Technology (OET) revealed only its broad outlines. Sumner said the League would not take a formal position until it reviews the full NPRM.

Anh Wride of the OET staff spelled out the scope of the NPRM, which only addresses so-called ''access BPL''--the type that would apply radio frequency energy to exterior overhead and underground low and medium-voltage power lines to distribute broadband and Internet service. She said the OET staff believes that interference concerns ''can be adequately addressed.'' Wride said the FCC's BPL NPRM:

* Applies existing Part 15 emission limits for unlicensed carrier-current systems to BPL systems. Part 15 rules now require

that BPL systems eliminate any harmful interference that may occur ''and must cease operation if they cannot,'' she noted.

* Requires BPL systems to employ ''adaptive interference-mitigation techniques, including the capabilities to shut down a specific device, to reduce power levels on a dynamic or remote-control basis and to include or exclude specific operating frequencies or bands.''

* Subjects BPL providers to notification requirements that would establish a public database to include such information as the location of BPL devices, modulation type and operating frequencies.

* Proposes guidelines to provide for consistent and repeatable measurement of the RF emissions from BPL and other carrier-current systems.

Mirroring his colleagues' enthusiasm, FCC Chairman Michael Powell called BPL ''tremendously exciting.'' While conceding that BPL has ''a long way to go,'' the chairman said it could be ''the great broadband hope for a good part of rural America.'' Powell also said the FCC's OET has worked very hard to try to ''get their hands around'' the issue of interference and that the FCC would continue its vigilance in that area.

The FCC is expected to issue the complete Notice of Proposed Rule Making within a few days and will invite comments on it sometime after its publication.

Additional information about BPL and Amateur Radio is on the ARRL Web site, www.arrl.org/tis/info/HTML/plc/.
NNNN
/EX

"Ian" <krb@lycos.co.uk> wrote in message news:GiYWb.4652$cb7.36016@newsfep4-glfd.server.ntli.net...
> I think you posted the wrong link.
>
> "bb" <bb@private.com> wrote in message news:402C43EA.E25BC4CF@private.com...
> > http://www.cnn.com/2004/TECH/ptech/02/12/fcc.internet.ap/index.html
> >
>
>

2481. Remodelling commercial VHF yagi beams.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 13:25:58 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0ij74$17880s$1@ID-150848.news.uni-berlin.de>
Source record: 100053

Hi.

I'm wanting to have a marine band 5 element yagi. You cannot buy these things. Seems to me, that I could say myself some hassle by just buying a 5 element FM yagi, and scaling things down. Only major snag could be adjusting the folded dipole, I would have to cut that in the middle as well as at the connection ends.

Anyone tried modifying a commercial VHF yagi beam with folded dipole?

2482. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 14:17:05 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <c0im92$1hpe$1@f04n12.cac.psu.edu>
Source record: 100054

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message
news:20040212193926.13001.00002308@mb-m02.aol.com...
> >
> >I know someone who had diathermy and died 50 years later.
> >--
> >73, Cecil http://www.qsl.net/w5dxp
> >
> >
> >
>
> At age of 95?
> Seriously, are there any known ill effects from diathermy?
>
> Yuri

The eyes and gonads are two part of the body that most sensitive to
microwave radiation. So unless going blind and sterile is not a problem,
diathermy is not a good idea.

--
John Passaneau W3JXP
State College Pa
jxp16@psu.edu
This mail is a natural product. The slight variations in spelling and
grammar enhance its individual character and beauty and in no way are to
be considered flaws or defects.

2483. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 14:36:44 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402ce1da_7@corp.newsgroups.com>
Source record: 100055

Dr. Slick wrote:
> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> I think you reverse your argument every 1/2 cycle!

Must be your comprehension going into reverse every 1/2 cycle.
I have been perfectly consistent. Most people just don't
understand that AC current reverses direction every 1/2
cycle and flows backwards just as often as it flows forward.
All they have ever seen is an RMS current arrow pointing
away from the source toward the load. The RMS model for
AC has seduced a whole generation of engineers into
feeling the RMS model dictates reality.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2484. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 14:38:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402ce245_7@corp.newsgroups.com>
Source record: 100057

John Passaneau wrote:
> The eyes and gonads are two part of the body that most sensitive to
> microwave radiation. So unless going blind and sterile is not a problem,
> diathermy is not a good idea.

Diathermy in the 50's was HF, not microwave.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2485. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 14:39:08 UTC
From: richardharrison@webtv.net
Message-ID: <7780-402CE18C-330@storefull-3252.bay.webtv.net>
Source record: 100058

Mike, KB3EIA wrote:
"Are there any good references to the effects of shielding effectiveness as related to shield coverage?"

Yes. As Richard Clark noted, it is related to penetration depth of the materials and that is related to "skin effect".

The best exposition of skin effect in my opinion is given in "Radio-Electronic Transmission Fundamentals", a text by B. Whitfield Griffith,Jr.

Originally published in 1962, it`s return is a reprint by Noble Publishing Corp., 630 Pinnacle Court, Norcross, GA 30071; tel 770-449-6774; fax 770-448-2839; orders@ noblepub.com; www.noblepub.com.

Original publisher was McGraw-Hill.

The new Second Edition is a 648-page hardcover book which was reviewed in the "New Products" section of the Jan. 2001 QST on page 48.

Griffith graduated from MIT, was a licensed radio amateur, senior member of the IRE, Texas Society of Professional Engineers, National Society of Professional Engineers, and ARRL.

In the original edition, "Skin Effect" begins on page 232. "Radiation and its Control" begins on page 243. You don`t need calculus to understand Griffith, but calculus never hurt anybody.

The reprint is well worth the $75 asked in 2001. In fact, it would be worth searching elsewhere if the 2nd edition is now out of print. This book is outstanding! ISBN 1-884932-13-4: order number NP-34. You won`t find clearer or more concise.

Best regards, Richard Harrison, KB5WZI

2486. Re: uh oh broadband power line coming

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 14:42:24 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <39op20th6tm1a6b4pqf829o87hc3fcauvv@4ax.com>
Source record: 100056

Well, folks, I guess it's time we dusted off our soldering irons and machine tools. We're all going to have to use amplifiers to communicate over the noise. A couple hundred watts just ain't gonna cut it.

Hey, if our noise floor goes up by another ten to 20 dB, then we'll need at least that much power to make up for it. I think I'll petition the FCC to allow Extra Class hams the right to use up to 25 kW.

What's that? It would trash the BPL system for at least a mile in every direction? Well, gosh, what did they expect?

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

2487. Re: Wireless lan

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 15:08:31 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <402ce7c2.244270734@news.galilei.com>
Source record: 100059

kashe@rahul.net verbositized:

>On 12 Feb 2004 14:33:34 EST, raiar@bbs.galilei.com.nospam (Gary V.
>Deutschmann, Sr.) wrote:
>
>>Hi Map
>>
>>Why go to all of that expense?
>>
>>Within any given residential or commercial block, there are many 'dead
>>(as far as for phone to switch)' phone pairs. Some of these can be
>>utilized to connect a network between two homes or two offices, or
>>sometimes between home and office.
>>Two of my Uncles homes and their offices were connected this way and
>>they had no troubles from it.
>>
>>TTUL
>>Gary
>
> Depending on who your local telco is, it can be nearly
>imossible to get them to hook you up to these dry pairs. It used to be
>common; then the telcos decided they'd rather not make this kind of
>cheap connectivity available to the general public. I believe I've
>heard of some people persuading the telco to set them up by saying it
>was to be used for an alarm system between the two ends.

Your probably right!
I remember one of my Uncles saying that if they replace the cabling
they will be shut down, and may not be as fortunate enough to get
another one.
FWIW - he does pay around $30.00 per year for the use of the several
pairs that they are using. I have no idea what they charged him to
make the connections though. I believe he is using 3 pairs of dead
lines for their connection.

TTUL
Gary

>

2488. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 15:23:47 UTC
From: richardharrison@webtv.net
Message-ID: <10996-402CEC03-121@storefull-3258.bay.webtv.net>
Source record: 100060

Ed Price wrote:
"Remember to use hardware cloth for the screen."

In my experience, the screened room was constructed of copper insect wire screen. All seams and joints were soldered.

As in pre-fab rooms, the room was double screened. Both sides of the wooden studs were screened to make a copper box inside a copper box.

Every penetration was carefully screened and bypassed. The door was shielded and had low resistance contacts all around.

We were able to accurately make very sensitive measurements in our screened room which was sited in the center of a very high power shortwave broadcast plant with many transmitters, usually simultaneously operating in at least 3 bands. One band predicted as the optimum working band for the path and, the same program simultaneously transmitted on the next higher and next lower bands, just in case. We had several languages and target areas at nearly all times during all 24-hour days.

Best regards, Richard Harrison, KB5WZI

2489. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 15:41:01 UTC
From: Bob Schreibmaier <k3ph@ptd.net>
Message-ID: <3fmdncvIRcmRbbHdUSdV9g@ptd.net>
Source record: 100061

Hi Bill,

In article <k0hp205qc00nm3uq5vb9cdkgml4c50v1hr@4ax.com>, noway@nohow.com
says...
>
>
>On 12 Feb 2004 12:39:06 -0600, tclay@qmc.ph.msstate.edu (R. Torsten
>Clay) wrote:
>
>>A yagi can be made with a direct dipole feed, which is very simple.
>
>Please explain how. All the yagis I've heard of have a very low
>feedpoint impedance. How do you use 50 ohm coax without a matching
>device of some kind?

It all depends how you tune the yagi. For example,
a two-element yagi with about 0.2 wavelength spacing,
with a reflector approximately 5% longer than the
driven element will offer a very good match to
50 ohm coax (according to EZNEC). Costs only a few
tenths of a dB in forward gain to get that match.

73,
Bob
K3PH

--
+---+
| Bob Schreibmaier K3PH | E-mail: k3ph@ptd.net |
| Kresgeville, PA 18333 | http://www.dxis.org |
+---+

2490. Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 16:12:42 UTC
From: cme <zcadrian@yahoo.com>
Message-ID: <ttudnTShFOFQarHdRVn-gg@look.ca>
Source record: 100062

I've read all the ham sites and I was hoping someone could enlight me. Some of the questions may seem dumb, but i figure there is no dumb question unless you dont ask it.
I'm making a yagi antenna for channel 57,
I'm thinking of using 14 copper wire for dipole element and the 14 gage wire for reflector and director elements, just ot see if I can get it to work better. actually thinking of use the channel 69 to make the antenna to cut the peices of antenna.
Will I be able to pull 57 easier. Presently have a 4 elemnet bowtie Delhi uhf antenna. want to play with a yagi before buying one, to see if it works better, with out dropping the cash. would stacking another one on top of the 4 bowtie on top of the present one give me anymore gain???? theres no refector on mine. I'm half way in between 2 areas buffalo and toronto transmission towers.
Not being a ham I know you have to tune the antenna for impediance I guess. Can I use a 300 to 75 ohm transformer or how would I find the impediance of the antenna If I made it from 14 gage house wire.
What if I use 300 twin antenna wire for the active element and 14 gage wire for the refectors and directors?

Are the reflectors and directors NOT connected to the active element.

I would appreciate any good sites on building your own TV antenna or any info. in this area.
talked to alot of antenna tv shops and I get no help, so I decided to trry and build a experimntal unit before droping the cash on another uhf antenna.

2491. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 16:41:27 UTC
From: richardharrison@webtv.net
Message-ID: <27399-402CFE37-142@storefull-3251.bay.webtv.net>
Source record: 100063

Cecil, W5DXP wrote:
"I know someone who had diathermy and died 50 years later."

50 years ago I had already spent 5 years working in broadcast transmitter plants and was then working in what was thought to be the world`s largest combination of high power shortwave transmitters and antennas.

I had an ear come in contact with a fully modulated 50 KW signal on one of the transmission lines. It was shouting the Polish language right into my ear which burned to a crisp. I`m glad it wasn`t carrying one of our higher powered transmitters at the time.

I`m still alive after all manner of exposure to radiation from low KHz to GHz for prolonged periods. After the shortwave plant experience, I became father of 4 healthy children. I don`t take pills, haven`t had a doctor for decades, and hike 3 miles a day. Radio frequency exposure may be therapeutic, but beware ultraviolet.

My friend, Norman Olstad, W5OQJ, was a cinema projectionist suffering from a severe chest cold. He decided to bake it out with the projector`s carbon arc. He exposed his chest to direct radiation from the arc during the evening shift at the theater.

Norman pulled the big switch, locked up the cinema, and went home to bed at the end of his shift. Next morning he was dead in bed. Examiner said he had been ultraviolated to death.

We may need an ozone layer for protection from ultraviolet.

Best regards, Richard Harrison, KB5WZI

2492. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 17:27:47 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <m3vfmax52k.fsf@qmc.ph.msstate.edu>
Source record: 100065

>A yagi can be made with a direct dipole feed, which is very simple.

_____

>Please explain how. All the yagis I've heard of have a very low
>feedpoint impedance. How do you use 50 ohm coax without a matching
>device of some kind?

See for example

http://www.cebik.com/a10/ant35.html
http://www.naic.edu/~angel/kp4ao/ham/owa.html

just depends on how you tune the yagi. Give up a little (0.5 dB?) gain,
and the impedance can be 50 ohms.

Torsten
N4OGW

2493. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 17:30:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g92q2052449n8qvvhonnf8ni9nfnqhuh52@4ax.com>
Source record: 100064

On Fri, 13 Feb 2004 08:36:44 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Most people just don't understand
What a mission of salvation inhabits you.

2494. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 18:03:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402d11a3$1_2@127.0.0.1>
Source record: 100066

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Most people just don't understand
>
> What a mission of salvation inhabits you.

Good to know that you understand everything, Richard.
Maybe you could tell us if supersymetry is valid?
--
73, Cecil, W5DXP

2495. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 18:29:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4n5q20l4hstk4sh5p8c0dfqto58oiskh9g@4ax.com>
Source record: 100067

On Fri, 13 Feb 2004 12:03:11 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>Most people just don't understand
>Good to know that you understand everything, Richard.
Bipolar now? Which cycle are you cresting on?

2496. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 18:30:50 UTC
From: Mike Coslo <mjc5@psu.edu>
Message-ID: <402D17DA.1090504@psu.edu>
Source record: 100068

Ed Price wrote:

> Remember to use "hardware cloth" for the screen. This material is galvanized
> steel, and the galvanizing "solders" every crossover point. !/4" mesh is
> fine for HF. Your problems will be the penetrations, as Mike described.
> Also, you will need to bond the cloth to the aluminum. Soldering would be
> best, but that would only work for a copper or tin-plated steel chassis. You
> will have to clamp the cloth to the chassis, possibly using lengths of bar
> stock with screws every inch or so. Don't forget to polish the aluminum area
> that contacts the cloth just before assembly. Get it down to shiny aluminum;
> aluminum oxide is an insulator, and you need good conductivity across the
> joint.

Good point and thanks Ed! I was thinking of hardware cloth, and this
would give me a reason not to switch from it.

There will ba an access port in the shield, but I can design a recessed
portion of the shield to keep it continuous.

- Mike KB3EIA

2497. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 18:38:42 UTC
From: Mike Coslo <mjc5@psu.edu>
Message-ID: <402D19B2.40507@psu.edu>
Source record: 99969

Richard Harrison wrote:
> Mike, KB3EIA wrote:
> "Are there any good references to the effects of shielding effectiveness
> as related to shield coverage?"
>
> Yes. As Richard Clark noted, it is related to penetration depth of the
> materials and that is related to "skin effect".
>
> The best exposition of skin effect in my opinion is given in
> "Radio-Electronic Transmission Fundamentals", a text by B. Whitfield
> Griffith,Jr.
>
> Originally published in 1962, it`s return is a reprint by Noble
> Publishing Corp., 630 Pinnacle Court, Norcross, GA 30071; tel
> 770-449-6774; fax 770-448-2839; orders@ noblepub.com; www.noblepub.com.
>
> Original publisher was McGraw-Hill.
>
> The new Second Edition is a 648-page hardcover book which was reviewed
> in the "New Products" section of the Jan. 2001 QST on page 48.
>
> Griffith graduated from MIT, was a licensed radio amateur, senior member
> of the IRE, Texas Society of Professional Engineers, National Society of
> Professional Engineers, and ARRL.
>
> In the original edition, "Skin Effect" begins on page 232. "Radiation
> and its Control" begins on page 243. You don`t need calculus to
> understand Griffith, but calculus never hurt anybody.
>
> The reprint is well worth the $75 asked in 2001. In fact, it would be
> worth searching elsewhere if the 2nd edition is now out of print. This
> book is outstanding! ISBN 1-884932-13-4: order number NP-34. You won`t
> find clearer or more concise.
>
> Best regards, Richard Harrison, KB5WZI

Thanks very much, Richard and Ed, I'm doing a search at our University
Lib right now.

- Mike KB3EIA -

2498. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 19:10:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g18q20hlhq6rrah8s5f6691bdjtbqkbeeg@4ax.com>
Source record: 99970

On Fri, 13 Feb 2004 13:38:42 -0500, Mike Coslo <mjc5@psu.edu> wrote:

> Thanks very much, Richard and Ed, I'm doing a search at our University
>Lib right now.
>
> - Mike KB3EIA -

Hi Mike,

Add:
"Grounding And Shielding Techniques in Instrumentation,"
Ralph Morrison

"Noise Reduction Techniques in Electronic Systems,"
Henry W. Ott

Two slim volumes with more practical information than a thousand EE
books.

73's
Richard Clark, KB7QHC

2499. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 19:36:26 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c0j937$7p$1@newshost.mot.com>
Source record: 99972

Is there, was there ever, a point to all this drivel?

It might appear that the discussion is, had been, about current flow direction vs. energy flow direction.

Unfortunately, the main message the rest of the readers of this group see is one of immaturity.

I think the point of contention may have something to do with the fact that current on a t-line can be reversing direction in time and be different directions at different locations on the t-line. Then, there may be some relation to the energy which can be flowing in one direction. So is the nature of waves.

But one sure can't tell by reading these posts.Why do I?

"Dr. Slick" <radio913@aol.com> wrote in message news:1d15af91.0402121303.6e6c36dc@posting.google.com...
> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:<402b0064$1_1@corp.newsgroups.com>...
> > Dr. Slick wrote:
> > > Kinda like how you imagine you are saying something important
> > > or intelligent!
> >
> > Makes one wonder why something so unimportant is worth the energy
> > you expend in arguing about it. :-) Sure seems to me that dQ/dt
> > is negative for 1/2 half of an AC cycle.
>
>
> I think every so often, it's important to point out how
> full of sh** Cecil Moore really is...
>
>
> S.

2500. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 19:41:53 UTC
From: dplatt@radagast.org
Message-ID: <102qa417chmqm2d@corp.supernews.com>
Source record: 99971

>>A yagi can be made with a direct dipole feed, which is very simple.
>

>Please explain how. All the yagis I've heard of have a very low
>feedpoint impedance. How do you use 50 ohm coax without a matching
>device of some kind?

One approach can be seen at:

http://www.clarc.org/Articles/uhf.htm

This method, by Kent Britain WA5VJB, uses a combination of a
half-folded driven element, and a proper selection of element spacing,
to allow the direct connection of 50-ohm coax. They don't provide the
highest gain or F/B ratio possible with a Yagi, but it sounds as if
the sacrifice in gain is modest.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2501. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 20:30:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2bcq20hr18q4lrm0u53dofge0lhi86gtq7@4ax.com>
Source record: 99973

On Fri, 13 Feb 2004 13:36:26 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:
>Is there, was there ever, a point to all this drivel?

Hi Steve,

Reference the Subject header. Any expectations above and beyond that promise are a fantasy.

>But one sure can't tell by reading these posts.Why do I?
Boredom? If you perceive a topic worth discussing, start a thread with a more structured enquiry. [This is no guarantor of increased accuracy, coherency, or merit that will follow from such effort.]

73's
Richard Clark, KB7QHC

2502. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 20:39:23 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <402D35FB.7B68E331@cwis.net>
Source record: 99974

jj,
No ill affects. Pick something else to worry
about.
'Doc

2503. Re: uh oh broadband power line coming

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 20:41:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <402D368D.8F2626E5@cwis.net>
Source record: 99975

Nothing to worry about. The first time it interferes with
Saturday morning cartoons, it'll be history.
'Doc

2504. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 20:49:59 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <c0jd9m$1k6i$1@f04n12.cac.psu.edu>
Source record: 99976

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:402ce245_7@corp.newsgroups.com...
> John Passaneau wrote:
> > The eyes and gonads are two part of the body that most sensitive to
> > microwave radiation. So unless going blind and sterile is not a problem,
> > diathermy is not a good idea.
>
> Diathermy in the 50's was HF, not microwave.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

That's interesting. The only diathermy machine I've ever seen worked at
about 5GHz. It had a jointed metal arm with interchangeable dish and horn
antennas that were changed to fit the body part you wanted to heat. The arm
was a wave guide to get the power from the generator to the antenna. It
worked quite well for heating the body. I'm not sure how HF range RF would
do at heating the body though. I used to work with a 50KW induction heater
that ran at about 500KHz and it would heat my belt buckle but not me, at
least not directly. Thinking about I do remember seeing a picture of someone
using a diathermy machine with a coil warped around the body, so maybe it
could be done at HF. The eyes and gonads are most sensitive to RF as they
are the organs that are most exposed on the body with the highest water
content. That's why things with little water do not get hot in a microwave
oven. The microwaves are exciting the water monocles, and excited monocles
are hot monocles.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

2505. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 20:53:02 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <c0jdfe$1oo8$1@f04n12.cac.psu.edu>
Source record: 99977

Hi Mike:

I have those books if you can't find them. Many shield rooms also have a shield of soft iron as well as the copper. The soft iron shields against magnetic fields.

--
John Passaneau W3JXP
State College Pa
jxp16@psu.edu
This mail is a natural product. The slight variations in spelling and grammar enhance its individual character and beauty and in no way are to be considered flaws or defects.

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:g18q20hlhq6rrah8s5f6691bdjtbqkbeeg@4ax.com...
> On Fri, 13 Feb 2004 13:38:42 -0500, Mike Coslo <mjc5@psu.edu> wrote:
>
> > Thanks very much, Richard and Ed, I'm doing a search at our University
> >Lib right now.
> >
> > - Mike KB3EIA -
>
> Hi Mike,
>
> Add:
> "Grounding And Shielding Techniques in Instrumentation,"
> Ralph Morrison
>
> "Noise Reduction Techniques in Electronic Systems,"
> Henry W. Ott
>
> Two slim volumes with more practical information than a thousand EE
> books.
>
> 73's
> Richard Clark, KB7QHC

2506. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 21:05:09 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c0je9i$8e6$1@newshost.mot.com>
Source record: 99978

DUH! I shoulda' known... Gotcha, Rich(ard)

I usually look for a subject line that is either - something I want to know about, or something asked, that I can answer in a simple, straightforward way. [done a lot, seen a lot, know a lot--have a bone in my head - makes me want to help others to understand...no wise cracks invited]

I know everything except how to be humble.

73, Steve K:9:D:C:I

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:2bcq20hr18q4lrm0u53dofge0lhi86gtq7@4ax.com...
> On Fri, 13 Feb 2004 13:36:26 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
> >Is there, was there ever, a point to all this drivel?
>
> Hi Steve,
>
> Reference the Subject header. Any expectations above and beyond that
> promise are a fantasy.
>
> >But one sure can't tell by reading these posts.Why do I?
> Boredom? If you perceive a topic worth discussing, start a thread
> with a more structured enquiry. [This is no guarantor of increased
> accuracy, coherency, or merit that will follow from such effort.]
>
> 73's
> Richard Clark, KB7QHC

2507. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 21:39:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <brgq20dartjvfsihsttpcql6o5apghqc4e@4ax.com>
Source record: 99979

On Fri, 13 Feb 2004 15:49:59 -0500, "John Passaneau" <jxp16@psu.edu>
wrote:
> I used to work with a 50KW induction heater
>that ran at about 500KHz and it would heat my belt buckle but not me, at
>least not directly.

Hi John,

Sitting directly on top of the international maritime distress
frequency?

73's
Richard Clark, KB7QHC

2508. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 21:46:45 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040213164645.21760.00001669@mb-m25.aol.com>
Source record: 99980

OK on the comments, it was my point that exposure to almost any reasonable level of RF from antennas is not harmfull. If anything it is beneficial. Microwaves are different story, yes, eyes and nuts are most sensitive. But the recent bugaboo from FCC and ARRL about RF exposure levels is nuts and another scary crap.

Magnetothermia is RF heating with around 27 MHz and statically shielded loop. It allows to focus the energy into body parts and it was found to heal fractures by 60%, asthma clogging, cold, painfull joints, cook cancer tumors, etc.

So enjoy your RF exposure, get daily dose of sunshine and you will live long and be sharp.

73 Yuri, K3BU

2509. Re: uh oh broadband power line coming

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 21:47:55 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c0jgpm$c7n$1@newshost.mot.com>
Source record: 99981

Well, When you get the mail or phone call to sell the service in your area, stop them at the beginning and ask for the number / address / email address for their ''adaptive interference-mitigation" department. Correspond via (e)mail I think is preferred.

I wonder if we should copy the FCC on any correspondence..... ... ...

"Jake Brodsky" <frussle@erols.com> wrote in message news:39op20th6tm1a6b4pqf829o87hc3fcauvv@4ax.com...
> Well, folks, I guess it's time we dusted off our soldering irons and
> machine tools. We're all going to have to use amplifiers to
> communicate over the noise. A couple hundred watts just ain't gonna
> cut it.
>
> Hey, if our noise floor goes up by another ten to 20 dB, then we'll
> need at least that much power to make up for it. I think I'll
> petition the FCC to allow Extra Class hams the right to use up to 25
> kW.
>
> What's that? It would trash the BPL system for at least a mile in
> every direction? Well, gosh, what did they expect?
>
>
> Jake Brodsky, AB3A mailto:frussle@erols.com
> "Beware of the massive impossible!"

2510. Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 22:11:47 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c0ji6c$ee7$1@newshost.mot.com>
Source record: 99986

Diathermy was mentioned in the longwire exposure thread and made me think of this long standing problem here in northern IL..

For some years now, there has been interference on the local 2M repeater (145.41) which sounds just like the diathermy I used to hear on 10M long ago. I could tell that it was a crude 60/120Hz. modulated signal which swept through the repeater input frequency.
It is easily readable on the input over an area at least 3x3 miles. No one has had the time to spend and I (with some pretty good equip) only went out a few times (can't spend a lot of time on the way to work... & when I'm off, it isn't very active), but have limited time as well.

. It is more active in the morning rush hour and rarely later in the day and probably never on weekends.

It has to be some kind of RF heating machine, right? Plastic sealing?

Here is a full symptom account to show that I know what characteristics it has.
I took a spec analyzer out and could see the signal sweeping down at least five MHz. (where I had it set at the time). I can hear it sweep through sometimes slowly and sometimes quickly. It so happens that it conveniently slows down and comes to a stop right around the repeater input - sometimes ON the input, but spends no more than 2-3 seconds if it happens to stop there AND stay on long enough. It has a variable time "on"and doesn't always make it to the input freq.
Now that the repeater is using CTSS full time (last Sept or Oct another fulltime input spur appeared!) , it doesn't bring up the repeater. However, you can hear it as it comes into the input across the freq -- if it is strong enough it will eventually capture and the station talking will go away, PL detect dies, the beep goes, then this reverses as it continues through the input freq.

--
Steve N, K,9;d, c. i My email has no u's.

2511. Re: Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 22:15:02 UTC
From: Pete Holden <peter.holden@comcast.net>
Message-ID: <G%bXb.30491$uV3.52579@attbi_s51>
Source record: 99982

Well, thank you all for your ideas. I did check my dimmers and electric blankets but found no RFI from them. It didn't seem to be anything from the thermostat either. I do have a battery charger which maintains a lead acid battery for my sump pump. I don't know about that yet. Of course, since yesterday all has been quiet.

And, by way of full disclosure, I live within spitting distance of a massive array of radar antennas associated with our Distant Early Warning system that supplies input to NORAD in Cheyenne Mt. and who knows what sort of RF they might be putting out occasionally?

Thanks again, Pete

2512. Re: uh oh broadband power line coming

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 22:27:12 UTC
From: aa6lk <aa6lk@cwnet.NOSPAM.com>
Message-ID: <402D4F40.3DE@cwnet.NOSPAM.com>
Source record: 99983

Steve Nosko wrote:
>
> Well, When you get the mail or phone call to sell the service in your area,
> stop them at the beginning and ask for the number / address / email address
> for their ''adaptive interference-mitigation" department. Correspond via
> (e)mail I think is preferred.

I have the feeling that the broadbanders are gonna try to sell this
using
the same lie that the phone utils are selling with respect to DSL:
someday we'll
bring service to your rural area, but we can't tell you when. They'll
use the
argument that it will benefit the rural consumer.

They'll be more interested in picking the low-hanging fruit (i.e. urban
residential, where the population density will support their investment
in installing
equipment) whereas the rural population density will be too low to make
retrofitting
the power utilies profitable. So rural customers (like me) STILL will
not be able to
get broadband service*, but the broadbanders might still get to wreck
SW reception
for everyone in town.

* yes, yes, I know we can get ISDN or satellite, but around here ISDN
is way expensive
for (2) 64kb channels, and latency through satellite is too long to
support VPN.

later,
L

2513. Re: Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 22:28:40 UTC
From: Dave <noone@nowhere.com>
Message-ID: <XJGdnevtyZcA0rDdRVn-hw@crocker.com>
Source record: 99984

oh... you may have been hearing the mother of all woodpeckers!

"Pete Holden" <peter.holden@comcast.net> wrote in message
news:G%bXb.30491$uV3.52579@attbi_s51...
> Well, thank you all for your ideas. I did check my dimmers and electric
> blankets but found no RFI from them. It didn't seem to be anything from
the
> thermostat either. I do have a battery charger which maintains a lead
acid
> battery for my sump pump. I don't know about that yet. Of course, since
> yesterday all has been quiet.
>
> And, by way of full disclosure, I live within spitting distance of a
massive
> array of radar antennas associated with our Distant Early Warning system
> that supplies input to NORAD in Cheyenne Mt. and who knows what sort of
RF
> they might be putting out occasionally?
>
> Thanks again, Pete
>
>

2514. Re: Excessive RF Exposure from Long Wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 22:32:37 UTC
From: dplatt@radagast.org
Message-ID: <102qk45fgvm9614@corp.supernews.com>
Source record: 99985

In article <20040213164645.21760.00001669@mb-m25.aol.com>,
Yuri Blanarovich <k3bu@aol.comNoUsama> wrote:

>OK on the comments, it was my point that exposure to almost any reasonable
>level of RF from antennas is not harmfull. If anything it is beneficial.
>Microwaves are different story, yes, eyes and nuts are most sensitive. But the
>recent bugaboo from FCC and ARRL about RF exposure levels is nuts and another
>scary crap.

One thing I might be concerned about, in running a long-wire into the house, is the possible presence of high RF voltages on the inside end of the wire. If the wire happens to be near anti-resonance on a particular band, and it's successfully tuned using an ATU or step-up transformer, then there could be some very high voltages present. There might be similar issues with the artificial-ground system or indoor counterpoise. Running 100 watts of RF into the heating pipes, household ground wire, etc. seems like maybe not the best of ideas.

RF burns hurt, and can be dangerous. Even a 100-watt barefoot system packs quite a bit of punch at the high-voltage points on the antenna system. A system of the sort that the OP plans to use, deserves careful planning and installation to make sure that the high-voltage points are safely insulated, and protected against casual and accidental contact by the operator and by anyone else. Otherwise, somebody might get "bitten".

As to the FCC regulations re RF exposure, and the ARRL's publicizing of them, I'd make the following two comments:

[1] Like 'em or not, believe in 'em or not, they have the force of law. They're part of what we agreed to comply with, when we applied for our licenses.

[2] From what I've heard, the setup that the OP is considering using is perhaps more likely to generate RFI/TVI than a system using a balanced antenna located well clear of the building. Hence, it's probably more likely to generate complaints from neighbors and from the landlord, and questions about whether it's safe. It can probably help to diffuse such complaints (and perhaps avoid a "shut it down or lose your lease" warning from the landlord) if you can demonstrate that the calculated RF exposure levels to everyone concerned are below the FCC's published limits.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior

I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2515. Re: stripline for 13.56 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-13 23:57:49 UTC
From: Chris Trask <christrask@earthlink.net>
Message-ID: <1wdXb.3067$WW3.1490@newsread2.news.pas.earthlink.net>
Source record: 99987

"Gary S." <Idontwantspam@net> wrote in message
news:5ha02058cvmjmvbkhoe095169gv9l4rseb@4ax.com...
> On Tue, 03 Feb 2004 21:49:54 GMT, "John Smith" <jocjo-john@yooha.com>
> wrote:
>
> >"W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
> >news:bvotfo$ee7$1@news3.infoave.net...
> >> One wonders if he really meant 1356 MHz
> >>
> >> "Dave Shrader" <david.shrader@comcast.net> wrote in message
> >> news:MIRTb.84026$U%5.449628@attbi_s03...
> >> > I sent Massimo direct mail asking if he really meant 13.56 MHz. He
> >> > responded, YES!
> >> >
> >> > I still wonder if he is having a language problem understanding MHz
and
> >> > GHz!!
> >
> >Yes, GHz would make much more sense.
> >
> It looks like 13.56 MHz is used for RFID systems as part of an
> international standard.
>

Here in the US, 13.56MHz is used for diatherm machines, and the
frequency tolerance is very rigid.

I've done stripline (or rather printed meander) antennas for 13.56MHz
(yes, m-e-g-a-h-e-r-t-z) for use with RFID. Very lossy, but when used as an
active antenna they can be fairly good while at the same time being compact
and cost effective.

Chris

,----------------------. High Performance Mixers and
/ What's all this \ Amplifiers for RF Communications
/ extinct stuff, anyhow? /
\ _______,--------------' Chris Trask / N7ZWY
_ |/ Principal Engineer
oo\ Sonoran Radio Research
(__)\ _ P.O. Box 25240
\ \ .' `. Tempe, Arizona 85285-5240
\ \ / \
\ '" \ IEEE Member #40274515
. ( ) \

'-|)__| :. \ Email: christrask@earthlink.net
| | | | \ '. http://www.home.earthlink.net/~christrask
c__; c__; '-..'>.__

Graphics by Loek Frederiks

2516. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 00:09:57 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <402D6755.70F39FA3@uci.edu>
Source record: 99988

Yuri Blanarovich wrote:
> Applying for further education:
> so what is flowing energy, no current flowing?

As far as you know, apparently.

2517. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 01:08:10 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <u6tq20t50mhijspi7vqtamo1fpfd0b2494@4ax.com>
Source record: 99989

On Fri, 13 Feb 2004 13:38:42 -0500, Mike Coslo <mjc5@psu.edu> wrote:

Look here too:

http://www.ce-mag.com/99ARG/Bjorklof137.html

2518. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 03:24:35 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <102r589rptuquab@corp.supernews.com>
Source record: 99990

You should know that stock all channel tv antennas are cut on a "V" or
hyperbolic shape. Each element is electrically connected to each other.
This shape simulates a solid plate antenna cut into two triangular
pieces and is not a very efficient antenna. If you make a dipole antenna
cut to channel 57 you should increase you receive signal. If you make a
yagi antennas cut to ch 57 you will increase your signal in accordance
with the design of your antenna. Remember all yagi antennas fabricated
to the same specifications no matter the frequency will exhibit the same
gain, more or less.

Dave Nagel WD9BDZ

cme wrote:

> I've read all the ham sites and I was hoping someone could enlight me. Some
> of the questions may seem dumb, but i figure there is no dumb question
> unless you dont ask it.
> I'm making a yagi antenna for channel 57,
> I'm thinking of using 14 copper wire for dipole element and the 14 gage wire
> for reflector and director elements, just ot see if I can get it to work
> better. actually thinking of use the channel 69 to make the antenna to cut
> the peices of antenna.
> Will I be able to pull 57 easier. Presently have a 4 elemnet bowtie Delhi
> uhf antenna. want to play with a yagi before buying one, to see if it works
> better, with out dropping the cash. would stacking another one on top of
> the 4 bowtie on top of the present one give me anymore gain???? theres no
> refector on mine. I'm half way in between 2 areas buffalo and toronto
> transmission towers.
> Not being a ham I know you have to tune the antenna for impediance I guess.
> Can I use a 300 to 75 ohm transformer or how would I find the impediance of
> the antenna If I made it from 14 gage house wire.
> What if I use 300 twin antenna wire for the active element and 14 gage wire
> for the refectors and directors?
>
> Are the reflectors and directors NOT connected to the active element.
>
> I would appreciate any good sites on building your own TV antenna or any
> info. in this area.
> talked to alot of antenna tv shops and I get no help, so I decided to trry
> and build a experimntal unit before droping the cash on another uhf antenna.
>
>
>
>
>

>

2519. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 03:35:25 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0402131935.3c496a90@posting.google.com>
Source record: 99991

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<4n5q20l4hstk4sh5p8c0dfqto58oiskh9g@4ax.com>...
> On Fri, 13 Feb 2004 12:03:11 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >>>Most people just don't understand
> >Good to know that you understand everything, Richard.
> Bipolar now? Which cycle are you cresting on?

Cecil is on the Bullshit cycle at the moment.

The other cycle is sort of a lobotomized euphoria.

Slick

2520. Re: Quarter wavelength sloper for 80 mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 03:40:09 UTC
From: Dan Vitale <dan@cwdesigners.com>
Message-ID: <KYGdnaZ7ZPbiBbDdRVn-hQ@pghconnect.com>
Source record: 99992

"Jack Painter" <223bthp@cox.net> wrote in message
news:L0xVb.15972$gl2.982@lakeread05...
> Renzo, I'm sure members can answer your other questions I can't, but may I
> ask why you would choose 1/4 wavelength "slopers" when a 1/2 wavelength
> dipole (or several, as you planned) on the same tower would take up no
more
> space, and probably significantly improve reception?
>
> Jack
>
> "Renzo" <derenzo@tiscalinet.it> wrote
> > I would like to install 4 quarter wavelength slopers with different
> > directions on the same tower. Any questions:
> > a) Is it a fine idea to select one of the slopers through a relay box
> > located at the tower?
> > b) Is there a way to use the selected one like the driven element and
the
> > unused elements (3) like reflectors?
> > The fact is, is it possible to realize a parasitic electrically rotated
> > array using the quarter slopers instead of the
> > half wavelength (ARRL Antenna Handbook)?
> > Many thanks in advance for any possible infos about!
>
>
I have a 5btv vertical, it works fair but of course the bandwidth is very
narrow. The reason for using the vertical was because my tower blew down, do
the vertical was used out of necessity. After putting 60 feet of tower back
up, I ran a 1/4 wave slopper for 75, thinking it would work way better than
the vertical. It didn't. I couldn't tell a bit of difference. I thought my
noise level would be lower, it wasn't. The only advantage over the vertical
was the bandwidth was much better. So at that point I added another half to
the slopper to make it an inverted vee. That made a difference. Noise level
was 2 S-Units lower and signals both transmit and receive were at least 10
to 15 db stronger. I was really disappointed with the 1/4 wave slopper. That
is my experience with the antenna.

Dan Vitale

2521. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 04:34:48 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402da648_2@corp.newsgroups.com>
Source record: 99993

Dr. Slick wrote:
> Cecil is on the Bullshit cycle at the moment.
> The other cycle is sort of a lobotomized euphoria.

More ad hominem stuff. That tells me you can't defend your
assertion that current sloshes back and forth trapped between
voltage nodes. Your assertion would also have to be true of
light where the interference energy in the bright rings is
trapped between the dark rings. But we know that light does somehow
escape that interference pattern and keeps traveling in a straight
line unaffected by the other light beam. Similarly, in a constant
Z0 environment, the forward current is unaffected by the reflected
current and vice versa.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2522. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 06:17:57 UTC
From: Ivan Makarov <miv@hotmail.com>
Message-ID: <p4jXb.5135$iVf1.1468@twister01.bloor.is.net.cable.rogers.com>
Source record: 99994

Download and learn a freeware antenna simulator called MMANA
http://www.qsl.net/mmhamsoft/mmana/
This is the best way to play with antennas without spending a penny.
It will answer all questions you asked.
--

Regards,
Ivan

"cme" <zcadrian@yahoo.com> wrote in message
news:ttudnTShFOFQarHdRVn-gg@look.ca...
> I've read all the ham sites and I was hoping someone could enlight me.
Some
> of the questions may seem dumb, but i figure there is no dumb question
> unless you dont ask it.
> I'm making a yagi antenna for channel 57,
> I'm thinking of using 14 copper wire for dipole element and the 14 gage
wire
> for reflector and director elements, just ot see if I can get it to work
> better. actually thinking of use the channel 69 to make the antenna to cut
> the peices of antenna.
> Will I be able to pull 57 easier. Presently have a 4 elemnet bowtie
Delhi
> uhf antenna. want to play with a yagi before buying one, to see if it
works
> better, with out dropping the cash. would stacking another one on top of
> the 4 bowtie on top of the present one give me anymore gain???? theres no
> refector on mine. I'm half way in between 2 areas buffalo and toronto
> transmission towers.
> Not being a ham I know you have to tune the antenna for impediance I
guess.
> Can I use a 300 to 75 ohm transformer or how would I find the impediance
of
> the antenna If I made it from 14 gage house wire.
> What if I use 300 twin antenna wire for the active element and 14 gage
wire
> for the refectors and directors?
>
> Are the reflectors and directors NOT connected to the active element.
>
> I would appreciate any good sites on building your own TV antenna or any
> info. in this area.
> talked to alot of antenna tv shops and I get no help, so I decided to trry
> and build a experimntal unit before droping the cash on another uhf
antenna.

>
>
>
>
>
>

2523. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 09:37:02 UTC
From: cme <zcadrian@yahoo.com>
Message-ID: <qYednXjmCYEOcbDdRVn-gg@look.ca>
Source record: 99995

thanks for the help.
just one more question.
your refector and director elements are or are not connected to the element
which the coax cable is connected to. I assume they are not, from all my
reading.
"Ivan Makarov" <miv@hotmail.com> wrote in message
news:p4jXb.5135$iVf1.1468@twister01.bloor.is.net.cable.rogers.com...
> Download and learn a freeware antenna simulator called MMANA
> http://www.qsl.net/mmhamsoft/mmana/
> This is the best way to play with antennas without spending a penny.
> It will answer all questions you asked.
> --
>
> Regards,
> Ivan
>
>
> "cme" <zcadrian@yahoo.com> wrote in message
> news:ttudnTShFOFQarHdRVn-gg@look.ca...
> > I've read all the ham sites and I was hoping someone could enlight me.
> Some
> > of the questions may seem dumb, but i figure there is no dumb question
> > unless you dont ask it.
> > I'm making a yagi antenna for channel 57,
> > I'm thinking of using 14 copper wire for dipole element and the 14 gage
> wire
> > for reflector and director elements, just ot see if I can get it to work
> > better. actually thinking of use the channel 69 to make the antenna to
cut
> > the peices of antenna.
> > Will I be able to pull 57 easier. Presently have a 4 elemnet bowtie
> Delhi
> > uhf antenna. want to play with a yagi before buying one, to see if it
> works
> > better, with out dropping the cash. would stacking another one on top
of
> > the 4 bowtie on top of the present one give me anymore gain???? theres
no
> > refector on mine. I'm half way in between 2 areas buffalo and toronto
> > transmission towers.
> > Not being a ham I know you have to tune the antenna for impediance I
> guess.
> > Can I use a 300 to 75 ohm transformer or how would I find the impediance
> of

> > the antenna If I made it from 14 gage house wire.
> > What if I use 300 twin antenna wire for the active element and 14 gage
> wire
> > for the refectors and directors?
> >
> > Are the reflectors and directors NOT connected to the active element.
> >
> > I would appreciate any good sites on building your own TV antenna or any
> > info. in this area.
> > talked to alot of antenna tv shops and I get no help, so I decided to
trry
> > and build a experimntal unit before droping the cash on another uhf
> antenna.
> >
> >
> >
> >
> >
> >
>
>

2524. Re: Remodelling commercial VHF yagi beams.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 10:57:04 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0kurq$18a17v$1@ID-150848.news.uni-berlin.de>
Source record: 99996

Henry Hudson wrote:
> On Fri, 13 Feb 2004 13:25:58 -0000, "Richard"
> <nearlynews_email@ntlworld.com> wrote:
>
>> I'm wanting to have a marine band 5 element yagi. You cannot buy these
>> things.
>
> ROTFLMAO!!! Any commercial radio equipment vendor has yagis for the
> 156MHz range. Try Tesso and Hutton. Made by Maxrad, Antennex,
> Comtelco, Andrew, Telewave, and a few doxen others.

Of course you can buy these things, I know that, but what I meant to say was
not
cheaply. Not to my knowledge.

http://www.cebik.com/scales.html

Bit about scaling.

2525. Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 11:08:39 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0kvhg$16lqoi$1@ID-150848.news.uni-berlin.de>
Source record: 99997

Hi. Is there a standard way to measure antenna bandwith? Is it within 3dB down of maximum gain, or is it between SWR limits?

I'm looking at an FM receiving yagi that is advertised as covering the frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is the received signal going to be 3dB down at the band edges or what?

I notice that there are commecial yagis (that are probably suitable for transmission) that have 150-174 Mhz in their description. Yet they are stated as having a bandwidth of say 1.3 Mhz. What's the deal here?

2526. Re: Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 11:20:10 UTC
From: Jim Chumbley <jamesfchumbley@att.net>
Message-ID: <KvnXb.17499$hR.516397@bgtnsc05-news.ops.worldnet.att.net>
Source record: 99998

I had a similar problem. It turned out to be the "ice-cube-tray-dumping"
motor in the ice maker in my freezer. I didn't find it until long after I
had had the power company come out and inspect their HV line, up about 40'
and their transformers. Naturally they didn't have any problems.
73 DE N6UF, Jim

"Pete Holden" <peter.holden@comcast.net> wrote in message
news:zjTWb.290841$I06.2983429@attbi_s01...
: On my Icom 756 spectrum scope I'm getting S9 peaks every 2kHz or so all
: across the HF spectrum from 3mHz to 30mHz. This doesn't look at all like
: QRN since it's regular and discrete and they're narrow signal peaks,
: narrower even than a ham cw signal, all peaks the same strength. When I
: switch to a vacant antenna position, or to my dummy load, there is
nothing,
: so I'm assuming it isn't coming over the AC line. The noise signal is
: stronger on my vertical antenna than on my horizontal loop.
:
: I've seen this before, intermittently -- one minute on, two min off, 20
: seconds on, etc. But, today it's been going on for at least a couple of
: hours.
:
: Ideas anyone?
:
: Thanks, Pete
:
:

2527. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 12:05:39 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <jaoXb.72863$fD.59039@fed1read02>
Source record: 99999

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:c0ji6c$ee7$1@newshost.mot.com...
> Diathermy was mentioned in the longwire exposure thread and made me think
of
> this long standing problem here in northern IL..
>
> For some years now, there has been interference on the local 2M repeater
> (145.41) which sounds just like the diathermy I used to hear on 10M long
> ago. I could tell that it was a crude 60/120Hz. modulated signal which
> swept through the repeater input frequency.
> It is easily readable on the input over an area at least 3x3 miles. No
one
> has had the time to spend and I (with some pretty good equip) only went
out
> a few times (can't spend a lot of time on the way to work... & when I'm
> off, it isn't very active), but have limited time as well.
>
> . It is more active in the morning rush hour and rarely later in the day
> and probably never on weekends.
>
>
> It has to be some kind of RF heating machine, right? Plastic sealing?
>
>
> Here is a full symptom account to show that I know what characteristics it
> has.
> I took a spec analyzer out and could see the signal sweeping down at least
> five MHz. (where I had it set at the time). I can hear it sweep through
> sometimes slowly and sometimes quickly. It so happens that it
conveniently
> slows down and comes to a stop right around the repeater input - sometimes
> ON the input, but spends no more than 2-3 seconds if it happens to stop
> there AND stay on long enough. It has a variable time "on"and doesn't
> always make it to the input freq.
> Now that the repeater is using CTSS full time (last Sept or Oct another
> fulltime input spur appeared!) , it doesn't bring up the repeater.
However,
> you can hear it as it comes into the input across the freq -- if it is
> strong enough it will eventually capture and the station talking will go
> away, PL detect dies, the beep goes, then this reverses as it continues
> through the input freq.
>
> --
> Steve N, K,9;d, c. i My email has no u's.

>
>

Plastic sealing, using dielectric heating, is often done with the ISM at 27.125 MHz. Loading of the machine might (but isn't supposed to) pull the frequency. The 5th harmonic is a long way from the 2-meter band, and so is the 6th. If the RF source is quite close to the repeater, maybe you are seeing an image response to the 5th harmonic.

You don't need to have a heavy-industrial setting; I once tracked some RF unhappiness in Milwaukee to a neighborhood shop making vinyl auto tops.

Ed
wb6wsn

2528. Re: Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 12:17:52 UTC
From: Dave <noone@nowhere.com>
Message-ID: <xa2dnQ3he4pvjLPd4p2dnA@crocker.com>
Source record: 100000

no, there is no 'standard'. the bandwidth depends on what is important to you. you could be interested in forward gain, f/b ratio, swr, or maybe something else. manufacturers pick what they think their best qualities are for advertising of course. then of course there is the gain rating controversy, is it dbi or dbd or db-something-else, and it it measured properly or just calculated... again, there is no standard and lots of methods exist.

on the 150-174mhz antennas. in that band you typically buy an antenna for your operating frequency as that area of the band is channelized and licensed here in the states. a typical license may include a couple channels, but they are usually close together so a single antenna will cover them. in this are the local police and fire are all on channels between 153.75 and 155.3 so if they buy an antenna made for 154.5 or so it should be ok over all their channels. these are not normally things stocked in retail stores, you order them for the frequencies you want to cover and they are tuned at the factory or distributer for you.

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c0kvhg$16lqoi$1@ID-150848.news.uni-berlin.de...
> Hi. Is there a standard way to measure antenna bandwith? Is it within
3dB
> down of maximum gain, or is it between SWR limits?
>
> I'm looking at an FM receiving yagi that is advertised as covering the
> frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is the
> received signal going to be 3dB down at the band edges or what?
>
> I notice that there are commecial yagis (that are probably suitable for
> transmission) that have 150-174 Mhz in their description. Yet they are
> stated as having a bandwidth of say 1.3 Mhz. What's the deal here?
>
>

2529. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 12:18:58 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <OmoXb.72864$fD.48806@fed1read02>
Source record: 100001

"John Passaneau" <jxp16@psu.edu> wrote in message
news:c0jdfe$1oo8$1@f04n12.cac.psu.edu...
> Hi Mike:
>
> I have those books if you can't find them. Many shield rooms also have a
> shield of soft iron as well as the copper. The soft iron shields against
> magnetic fields.

The traditional modular shielded enclosure has become standardized to a design of 4' x 8' x 3/4" panels, held with a "hat & flat" clamping rail system. Each panel is a sandwich of a sheet of galvanized steel, plywood and another layer of galvanized steel. The steel is often about 24 gauge. This is a trade-off between weight, manufacturing ease, and durability. The galvanizing ensures good conductivity at the joints. The steel does give you a bit of LF H-field SE, but the real reason for the steel is that it's just a whole lot cheaper that copper screen, and lasts better, since the SE doesn't degrade and it isn't nearly so vulnerable to puncture.

If you want serious H-field shielding, you need to go to thick steel (welded) chambers, or employ exotic alloys (expensive, and physically & magnetically vulnerable).

Ed
wb6wsn

2530. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 13:03:49 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <R0pXb.72868$fD.30070@fed1read02>
Source record: 100002

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:10996-402CEC03-121@storefull-3258.bay.webtv.net...
> Ed Price wrote:
> "Remember to use hardware cloth for the screen."
>
> In my experience, the screened room was constructed of copper insect
> wire screen. All seams and joints were soldered.
>
> As in pre-fab rooms, the room was double screened. Both sides of the
> wooden studs were screened to make a copper box inside a copper box.
>
> Every penetration was carefully screened and bypassed. The door was
> shielded and had low resistance contacts all around.
>
> We were able to accurately make very sensitive measurements in our
> screened room which was sited in the center of a very high power
> shortwave broadcast plant with many transmitters, usually simultaneously
> operating in at least 3 bands. One band predicted as the optimum working
> band for the path and, the same program simultaneously transmitted on
> the next higher and next lower bands, just in case. We had several
> languages and target areas at nearly all times during all 24-hour days.
>
> Best regards, Richard Harrison, KB5WZI
>

The Lindgren "double-shielded" copper screen rooms may have had some theoretical SE advantage over double-skin panels where the inner & outer skins were joined at every clamp rail. OTOH, whatever advantage the design might have had was, in practice, negated by the nearly doubling of fasteners. The wood frames in those copper mesh screen rooms were notorious for changing dimension due to atmospheric humidity, resulting in a "breathing" effect that worked to loosen all those fasteners. A periodic re-torque of all fasteners was advisable.

Since you went to the extra effort to solder all your seams (the floor seams too <g>), you created a considerably better than average screen room. My comment about hardware cloth being soldered at each crossover was meant to point out that the copper screen isn't bonded that way. (For one thing, the small wire spacing would create enough surface tension in molten solder or zinc to completely fill the holes, so it would be rather hard to create wire-to-wire crossover bonds without resulting in a solid sheet.)

In my experience, new screen rooms, with bright & shiny copper screen, can yield an 80 dB SE or better. But, after a couple of years exposure to atmospheric oxygen, the copper forms a decent layer of copper oxide

(remember, the wire cross-overs are not gas tight), and the SE degrades by 20 to 30 dB. (This is independent of the clamped or soldered panel seams.) I haven't found any practical way to reverse this degradation.

If you have a very-used screen room (like one that's been stored on pallets for a few [dozen?] years), you will see that the screen is very oxidized. The best you can do when assembling this old room is to scrupulously buff the panel clamping areas until the copper shines again. (This is delicate, get too aggressive, and you will tear the screening!) I once tried to merge two mid-size, old double-shielded screen rooms, by soldering the merge line with a patch of new copper screen. This was horribly labor intensive, as cleaning the old copper screen well enough to flow the solder was really tough. Trying to solder over your head is also an experience to avoid at all costs.

Also, about the "door with low resistance contacts." The copper screen rooms usually are not strong and rigid enough to properly maintain perfect alignment of the heavy door leaf. You need to periodically check the contact action of the (typically) beryllium copper fingerstock. Look for shiny rub marks on the mating frame surface. Very well designed modular rooms will use a heavy, solid frame to carry the door leaf. Another factor is the heavy mechanical loading of the door and frame compressing the long perimeter of fingerstock. Unless well-built, both leaf and frame can bend under load, giving you a poor low-impedance joint. Knife-edge doors are less of a problem with compressive forces, but then, they need even more precise alignment registration to work well.

Getting back to the OP, I thought that he was asking about a shield over equipment, not a room volume. For HF, the 1/4" cloth will work as well as copper screening, and will allow much better air circulation. As I pointed out earlier, his biggest problem will be bonding the cloth to his heavy aluminum plate chassis.

Ed
wb6wsn

2531. Re: Shielding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 13:10:33 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <97pXb.72869$fD.8217@fed1read02>
Source record: 100003

"Mike Coslo" <mjc5@psu.edu> wrote in message
news:402D17DA.1090504@psu.edu...
> Ed Price wrote:
>
> > Remember to use "hardware cloth" for the screen. This material is
galvanized
> > steel, and the galvanizing "solders" every crossover point. !/4" mesh is
> > fine for HF. Your problems will be the penetrations, as Mike described.
> > Also, you will need to bond the cloth to the aluminum. Soldering would
be
> > best, but that would only work for a copper or tin-plated steel chassis.
You
> > will have to clamp the cloth to the chassis, possibly using lengths of
bar
> > stock with screws every inch or so. Don't forget to polish the aluminum
area
> > that contacts the cloth just before assembly. Get it down to shiny
aluminum;
> > aluminum oxide is an insulator, and you need good conductivity across
the
> > joint.
>
> Good point and thanks Ed! I was thinking of hardware cloth, and this
> would give me a reason not to switch from it.
>
> There will ba an access port in the shield, but I can design a recessed
> portion of the shield to keep it continuous.
>
> - Mike KB3EIA
>

Remember to never rely on the hinge of a port cover to provide a bond path.
Best practice is to use the hinge mechanically only, and have the leaf come
down on a full perimeter of a compressible conductive gasket. Beryllium
copper fingerstock, mating against a strip of copper, is best for high usage
ports. If you don't operate the port very much, you can use a folded-over
length of knitted wire mesh facing onto the hardware cloth. Just remember to
ensure that the gasket is compressed all along its length.

Ed
wb6wsn

2532. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 13:41:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0p8s2051eo8lbvjps27504vev62l13no1e@4ax.com>
Source record: 100004

On Fri, 13 Feb 2004 22:34:48 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>we know that light does somehow
>escape that interference pattern and keeps traveling in a straight
>line unaffected by the other light beam.

Hi All,

How to hold two mutually exclusive thoughts in one idea:
If it escapes there never was any notion of affectation;
If there was never any notion of affectation, there was nothing to
escape.

And "somehow?" This adverb presumes odds for which there were never
any chance to offer odds for in the first place. At least such
statements are consistent with the topic (you keeping notes Steve?).

73's
Richard Clark, KB7QHC

2533. Re: Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 14:06:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gr9s20teatvvrpupplj7b5avamtdbbl01v@4ax.com>
Source record: 100005

On Sat, 14 Feb 2004 11:08:39 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:

>Hi. Is there a standard way to measure antenna bandwith? Is it within 3dB
>down of maximum gain, or is it between SWR limits?

It could be either. Between 3dB points is the standard for
Electronics systems (filters, amplifiers, and such). Between 2:1 SWR
is standard for antennas, but could be pushed out to the 3dB margins.

>I'm looking at an FM receiving yagi that is advertised as covering the
>frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is the
>received signal going to be 3dB down at the band edges or what?

If it is strictly stated as being used for receiving, the manufacturer
is simply offering a "vanilla" style design (i.e. cut to halfwave
length against the usual formula to a center frequency). It could
also be a specification for the more expensive Log Periodic which
offers a more honest wide band coverage with a consistent gain. Then
it could also be for a hybrid design that employs some elements of Log
Periodic elements. Other options include thick or fat elements that
naturally broadband the design (but are not particularly gain-ful).
An antenna with a folded element (useful for matching) provides some
of this "thickness."

>I notice that there are commecial yagis (that are probably suitable for
>transmission) that have 150-174 Mhz in their description. Yet they are
>stated as having a bandwidth of say 1.3 Mhz. What's the deal here?

There, the bandwidth is for optimal results (like matching, gain, F/B
and so on). Outside of this bandwidth, the mismatch is tolerable
(professional systems employ system components that ignore mismatch
issues) and the customer accepts the degraded gain and other
characteristics that went south. For commercial applications, if the
circuit is effective, the antenna is simply a connector, even if a
sloppy one. Note, the same discussion of Log Periodicity or thickness
of elements applies here too.

73's
Richard Clark, KB7QHC

2534. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 14:18:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4tas20p05pcqnsmvavcsfibthprfvopbdg@4ax.com>
Source record: 100006

On Fri, 13 Feb 2004 11:12:42 -0500, "cme" <zcadrian@yahoo.com> wrote:

>Presently have a 4 elemnet bowtie Delhi
>uhf antenna. want to play with a yagi before buying one, to see if it works
>better, with out dropping the cash. would stacking another one on top of
>the 4 bowtie on top of the present one give me anymore gain???? theres no
>refector on mine. I'm half way in between 2 areas buffalo and toronto
>transmission towers.

Hi OM,

It sounds like you have already gotten the most gain you could for as cheap as it comes. The second investment is unlikely to bring any huge gain. That is, if your signals are marginal, then two antennas adding together will barely offer a crystal clear signal. Also, a more complex one is unlikely too unless it is a single channel cut antenna (your bowtie is not likely to fit that description).

However, there is a "hail mary" option. Put an antenna amplifier at the antenna (not at the end of the cable where it plugs into the TV). Make sure it can be powered over the line and is for UHF application AT THE ANTENNA. This may not be cheap (browse the net for pricing), but it will be effective, and it may be necessary even with an investment in a new antenna. Do not substitute with a cable TV amplifier, it will only brighten up the snow. (You can try of course if you have a buddy willing to let you 'xperiment.)

Being between two signals suggests you should also invest in a rotator - or skip the notion of being between.

73's
Richard Clark, KB7QHC

2535. Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 14:21:12 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0laqt$18otlr$1@ID-150848.news.uni-berlin.de>
Source record: 100007

I'm trying to receive some a distant FM stations, but I have locals 0.1Mhz away that block the desired station out. I could try to use a big gain directional yagi, but perhaps the solution is to make use of a null.

Anyone know of any antenna system that would produce a real good null in the FM band? Would that be to try for a cardoid pattern? Or is there something better than that?

Detail:

Intended Coord.of Interfering Coord.of Angular
station + antenna station + antenna sep. of
Freq. Freq. stations
Mhz Mhz from my
QTH

Scarboro' 00w24/ RadioAire 01w34/ 45
96.2 54n16 96.3 53n44 degrees

Bridlington 00w12/ Pulse FM 01w45/ 114
102.4 54n05 102.5 53n48 degrees

Whitby 00w36/ Sunrise Radio 01w45/ 75
103.1 54n29 103.2 53n50 degrees

As you see the seperation between the wanted stations and the interfering stations range from appx.45 degrees to 114 degrees. Intefering stations are always anticlockwise to the wanted station, but perhaps that makes no div.

BTW I think the Bridlington transmitter antenna coordinates are 00w12/54n05. Wonder if anyone can confirm this.

Data obtained from:

http://www.ukwtv.de/fmlist/countries.html

Where Bridlington is on107.4 Mhz, which is now incorrect, because Bridlington is on 102.4Mhz.

TIA.Rich.

2536. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 14:33:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a3cs20947kbsmnt25okdqobm67f7ufm9av@4ax.com>
Source record: 100008

On Sat, 14 Feb 2004 14:21:12 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:
>Anyone know of any antenna system that would produce a real good null in
>the FM band? Would that be to try for a cardoid pattern? Or is there
>something better than that?

Hi Richard,

That would be useful (the cardioid) if the signal strengths are good
enough to follow the interfering signal down into the null. To put
the interfering signal into the null means degrading the other 10 or
more dB.

Otherwise, look for a yagi with about 30 degrees of beam width (in the
vertical polarization).

73's
Richard Clark, KB7QHC

2537. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 14:44:08 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0lc5i$187i2l$1@ID-150848.news.uni-berlin.de>
Source record: 100009

Richard Clark wrote:
> On Sat, 14 Feb 2004 14:21:12 -0000, "Richard"
> <nearlynews_email@ntlworld.com> wrote:
>> Anyone know of any antenna system that would produce a real good null in
>> the FM band? Would that be to try for a cardoid pattern? Or is there
>> something better than that?
>
> Hi Richard,
>
> That would be useful (the cardioid) if the signal strengths are good
> enough to follow the interfering signal down into the null. To put
> the interfering signal into the null means degrading the other 10 or
> more dB.
>
> Otherwise, look for a yagi with about 30 degrees of beam width (in the
> vertical polarization).

Thing is, these stations would be quite weak, so I could do with gain, so perhaps a good yagi is the way to go after all. .Like you say, rotate until the offending station goes down in the null of the antenna.

I think also you are saying use vertical polarization, because that orientation always produces the sharper pattern. I never thought about that. I was though intending to mount vertically as it happens. Thanks.

2538. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 14:49:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nucs201cngclofrrduq386djcak57i9k60@4ax.com>
Source record: 100010

On Sat, 14 Feb 2004 14:44:08 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:
>I think also you are saying use vertical polarization, because that
>orientation always produces the sharper pattern. I never thought about that.
>I was though intending to mount vertically as it happens. Thanks.

Hi Richard,

I was careful to mention vertical polarization, because barring some
across-the-pond differences, that is what your broadcaster uses. If
you attempted to listen to them with horizontal polarized antennas,
you would suffer what is called "cross-polarization." The
consequences of this are signals that are down 20dB or more. If those
signals are circular polarized, then the vertical or horizontal would
work equally well (as long as that beam width was half the difference
of the two bearings).

73's
Richard Clark, KB7QHC

2539. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 14:57:57 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0ld01$18dif5$1@ID-150848.news.uni-berlin.de>
Source record: 100011

Richard Clark wrote:

> Otherwise, look for a yagi with about 30 degrees of beam width (in the
> vertical polarization).

Wow that would mean a large FM directional antenna would it not?

I'm looking at an 8 element, and the beamwidth is + - 21 degrees, that be 42 degrees of beam width. But, it's not clear whether that be horizontal or vertical beamwidth, presumably horizontal. I'll have to check. Maybe an 8 element might have a 30 degree beamwidth in the vertical.

2540. Re: Remodelling commercial VHF yagi beams.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 15:55:39 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <i9OdnRK6ucWc2LPd4p2dnA@comcast.com>
Source record: 100012

Richard,

I think the FM antenna would be too far off frequency to trim to size. A better bet would be to get a used 2 meter antenna, and trim that. To a first approximation, to get resonance at 156 MHz, you would cut off about 7% from each element.

Tam/WB2TT
"Richard" <nearlynews_email@ntlworld.com> wrote in message news:c0ij74$17880s$1@ID-150848.news.uni-berlin.de...
> Hi.
>
> I'm wanting to have a marine band 5 element yagi. You cannot buy these
> things. Seems to me, that I could say myself some hassle by just buying a
5
> element FM yagi, and scaling things down. Only major snag could be
> adjusting the folded dipole, I would have to cut that in the middle as
well
> as at the connection ends.
>
> Anyone tried modifying a commercial VHF yagi beam with folded dipole?
>
>
>

2541. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 17:24:31 UTC
From: Ian <krb@lycos.co.uk>
Message-ID: <9RsXb.5647$cb7.44106@newsfep4-glfd.server.ntli.net>
Source record: 100013

Hello,

A dipole mounted too close to a metal pole will cause a cardioid pattern.
The coordinates don't mean much to me, but a picture would with all the
station TXs and your marked on it .
The problem is, if you have a local 10K transmitter and try to null it out
in favour of a distant station, it will probably not work. Calculate the
loss of say 20 or 30dB to a local TX.
Buy a DAB instead (if you like MW sound quality as they TX in MONO). You
might hear the stations that way.

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c0laqt$18otlr$1@ID-150848.news.uni-berlin.de...
> I'm trying to receive some a distant FM stations, but I have locals
0.1Mhz
> away that block the desired station out. I could try to use a big gain
> directional yagi, but perhaps the solution is to make use of a null.
>
> Anyone know of any antenna system that would produce a real good null in
> the FM band? Would that be to try for a cardoid pattern? Or is there
> something better than that?
>
>
> Detail:
>
> Intended Coord.of Interfering Coord.of Angular
> station + antenna station + antenna sep. of
> Freq. Freq. stations
> Mhz Mhz from my
>
QTH
> --
> Scarboro' 00w24/ RadioAire 01w34/ 45
> 96.2 54n16 96.3 53n44 degrees
>
> Bridlington 00w12/ Pulse FM 01w45/ 114
> 102.4 54n05 102.5 53n48 degrees
>
> Whitby 00w36/ Sunrise Radio 01w45/ 75
> 103.1 54n29 103.2 53n50 degrees
>
>
> As you see the seperation between the wanted stations and the interfering
> stations range from appx.45 degrees to 114 degrees. Intefering stations
are

> always anticlockwise to the wanted station, but perhaps that makes no div.
>
> BTW I think the Bridlington transmitter antenna coordinates are
00w12/54n05.
> Wonder if anyone can confirm this.
>
> Data obtained from:
>
> http://www.ukwtv.de/fmlist/countries.html
>
> Where Bridlington is on107.4 Mhz, which is now incorrect, because
> Bridlington is on 102.4Mhz.
>
> TIA.Rich.
>
>
>

2542. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 17:26:12 UTC
From: Ian <krb@lycos.co.uk>
Message-ID: <ISsXb.5649$cb7.44170@newsfep4-glfd.server.ntli.net>
Source record: 100014

Hi Richard,

Horizontal polarisation from UK TV/radio TXs seems to travel a lot further on the same power than vertical. The same has been found over distances using 2m/70cm.

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:nucs201cngclofrrduq386djcak57i9k60@4ax.com...
> On Sat, 14 Feb 2004 14:44:08 -0000, "Richard"
> <nearlynews_email@ntlworld.com> wrote:
> >I think also you are saying use vertical polarization, because that
> >orientation always produces the sharper pattern. I never thought about that.
> >I was though intending to mount vertically as it happens. Thanks.
>
> Hi Richard,
>
> I was careful to mention vertical polarization, because barring some
> across-the-pond differences, that is what your broadcaster uses. If
> you attempted to listen to them with horizontal polarized antennas,
> you would suffer what is called "cross-polarization." The
> consequences of this are signals that are down 20dB or more. If those
> signals are circular polarized, then the vertical or horizontal would
> work equally well (as long as that beam width was half the difference
> of the two bearings).
>
> 73's
> Richard Clark, KB7QHC

2543. Re: Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 17:27:07 UTC
From: Ian <krb@lycos.co.uk>
Message-ID: <BTsXb.5650$cb7.44083@newsfep4-glfd.server.ntli.net>
Source record: 100015

Use your common sense!
You are answering your own questions as you post.

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c0kvhg$16lqoi$1@ID-150848.news.uni-berlin.de...
> Hi. Is there a standard way to measure antenna bandwith? Is it within
3dB
> down of maximum gain, or is it between SWR limits?
>
> I'm looking at an FM receiving yagi that is advertised as covering the
> frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is the
> received signal going to be 3dB down at the band edges or what?
>
> I notice that there are commecial yagis (that are probably suitable for
> transmission) that have 150-174 Mhz in their description. Yet they are
> stated as having a bandwidth of say 1.3 Mhz. What's the deal here?
>
>

2544. Re: Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 17:41:25 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0lmi8$171m86$1@ID-150848.news.uni-berlin.de>
Source record: 100016

Ian wrote:
> Use your common sense!
> You are answering your own questions as you post.
>

The question was is there a standard measure for bandwidth.

I gave a couple of possible measures.

This is not answering my own question.

So, the FM antenna that is advertized as covering 87.5-108 mhz, what
> "Richard" <nearlynews_email@ntlworld.com> wrote in message
> news:c0kvhg$16lqoi$1@ID-150848.news.uni-berlin.de...
>> Hi. Is there a standard way to measure antenna bandwith? Is it within
>> 3dB down of maximum gain, or is it between SWR limits?
>>
>> I'm looking at an FM receiving yagi that is advertised as covering the
>> frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is
>> the received signal going to be 3dB down at the band edges or what?
>>
>> I notice that there are commecial yagis (that are probably suitable for
>> transmission) that have 150-174 Mhz in their description. Yet they are
>> stated as having a bandwidth of say 1.3 Mhz. What's the deal here?

2545. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 17:45:44 UTC
From: richardharrison@webtv.net
Message-ID: <29539-402E5EC8-1@storefull-3253.bay.webtv.net>
Source record: 100017

Richard wrote:
"Anyone know of any antenna system that would produce a real good null in the FM band?"

Direction finding relies on sharp nulls. The small loop works well with vertically polarized ground waves, but small loops don`t work well in nulling out horizintally polarized waves simultaneously with a null in vertically polarized waves .

The lack of a simultaneous small loop null in both polarizations was the cause for development of an improved Radio Direction Finding (RDF) antenna, which was patented by F. Adcock in 1919. The story is found in the 19th edition of the ARRL Antenna Book on page 14-5.

FM broadcasts typically contain both polarizations, so what`s needed is an antenna which nulls out both polarizations.

The Adcock antenna has been found to prooduce good nulls under sky-wave conditions (containing both polarizations) at HF when loops produced poor nulls.

Instructions and directional patterns for the Adcock appear in the ARRL book. All that`s necessary is to approximately scale the Adcock for the frequency of the null.

With the interfering station in the null, the desired station may capture the FM detector.

Best regards, Richard Harrison, KB5WZI

2546. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 18:41:23 UTC
From: Bob Schreibmaier <k3ph@ptd.net>
Message-ID: <G_2cnfZvtaVO9rPdUSdV9g@ptd.net>
Source record: 100018

In article <uefr209t7l71i6nsdre2lt2tll64g5kku7@4ax.com>, noway@nohow.com says...

>On Fri, 13 Feb 2004 10:41:01 -0500, Bob Schreibmaier <k3ph@ptd.net>
>wrote:
>>It all depends how you tune the yagi. For example,
>>a two-element yagi with about 0.2 wavelength spacing,
>>with a reflector approximately 5% longer than the
>>driven element will offer a very good match to
>>50-ohm coax (according to EZNEC). Costs only a few
>>tenths of a dB in forward gain to get that match.
>>_____
>
>Ok, maybe so, but a two-element yagi is a waste of time in my book. If
>you're going to that much trouble to build one, add a third element and
>get a little more pizzaz.

Perhaps, but this, too, may be tuned for a very good
match to 50-ohm coax at only a small sacrifice in
forward gain. You are probably aware that Force 12
does exactly this. And, of course, the Mosley TA-series
tribanders that have been on the market for some 45
years have direct 50-ohm feed with a very good match.

73,
Bob
K3PH

--
+---+
| Bob Schreibmaier K3PH | E-mail: k3ph@ptd.net |
| Kresgeville, PA 18333 | http://www.dxis.org |
+---+

2547. looking 4 this operator?help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 19:48:52 UTC
From: lorentzson@lycos.com
Message-ID: <4030795b.7910389@news.devtex.net>
Source record: 99869

I am looking for a ham operator that I bought a two meter big
wheel horz antennas from several years back. I bought the ant and
promptly had to set it aside. In the last couple of months I installed
the antenna, and would like to purchase another. But,,,, this is ALL
I recall about the ham, I made the purchase at Belton Tx, five or six
years ago (?) and he told me he worked/retired from Icom/Icom shop?
and he is from Corinth Tx. He built 440/144/ and six meters (Ithink)
At THAT time he was in a wheel chair.
Would appreciate any and all help in contacting. C. Lorentson
kc5cqa email lorentsonci@lycos.com 73

2548. Re: looking 4 this operator?help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 20:11:31 UTC
From: Incognito <BLB@sero.net>
Message-ID: <ThvXb.16850$IF1.10516@fed1read01>
Source record: 99870

Just an idea -- go to qrz.com choose name search
type in "Corinth Tx"

get 34 results -- pick on the older calls and send them an e-mail -- see if
any one there can help

--
Incognito By Necessity (:-(

If you can't convince them, confuse them.
- - -Harry S Truman

"lorentzson" <lorentzson@lycos.com> wrote in message
news:4030795b.7910389@news.devtex.net...
> I am looking for a ham operator that I bought a two meter big
> wheel horz antennas from several years back. I bought the ant and
> promptly had to set it aside. In the last couple of months I installed
> the antenna, and would like to purchase another. But,,,, this is ALL
> I recall about the ham, I made the purchase at Belton Tx, five or six
> years ago (?) and he told me he worked/retired from Icom/Icom shop?
> and he is from Corinth Tx. He built 440/144/ and six meters (Ithink)
> At THAT time he was in a wheel chair.
> Would appreciate any and all help in contacting. C. Lorentson
> kc5cqa email lorentsonci@lycos.com 73

2549. t

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 20:12:01 UTC
From: sucker <sucker@mail.subrec.org>
Message-ID: <livXb.1278$Hg4.134@chiapp18.algx.net>
Source record: 99871

sucker@mail.subrec.org
spam filter test

2550. Re: looking 4 this operator?help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 20:14:52 UTC
From: Dave <noone@nowhere.com>
Message-ID: <xLadneZGXt0jHLPdRVn-jQ@crocker.com>
Source record: 99872

is this the antenna? http://www.ssbusa.com/wimowheel.html
which i think comes from:
http://www.wimo.com/cgi-bin/verteiler.pl?url=antbigwheel_e.htm

"lorentzson" <lorentzson@lycos.com> wrote in message
news:4030795b.7910389@news.devtex.net...
> I am looking for a ham operator that I bought a two meter big
> wheel horz antennas from several years back. I bought the ant and
> promptly had to set it aside. In the last couple of months I installed
> the antenna, and would like to purchase another. But,,,, this is ALL
> I recall about the ham, I made the purchase at Belton Tx, five or six
> years ago (?) and he told me he worked/retired from Icom/Icom shop?
> and he is from Corinth Tx. He built 440/144/ and six meters (Ithink)
> At THAT time he was in a wheel chair.
> Would appreciate any and all help in contacting. C. Lorentson
> kc5cqa email lorentsonci@lycos.com 73

2551. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 20:38:20 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0m0u3$18m1o9$1@ID-150848.news.uni-berlin.de>
Source record: 99873

Richard wrote:
> I'm trying to receive some a distant FM stations, but I have locals
> 0.1Mhz away that block the desired station out. I could try to use a big
> gain directional yagi, but perhaps the solution is to make use of a null.
>
> Anyone know of any antenna system that would produce a real good null in
> the FM band? Would that be to try for a cardoid pattern? Or is there
> something better than that?

I think these might provide a solution:

http://www.geocities.com/toddemslie/phase_cancellation.htm

http://www.anarc.org/wtfda/stagger.pdf

http://pages.cthome.net/fmdx/phase.html

2552. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 21:35:21 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <102t51rbifn5c25@corp.supernews.com>
Source record: 99874

It depends on what one wishes to accomplish and how long one expects the antenna to endure.
It is assumed that the antenna is designed to survive the pressure due to the expected peak wind velocity (at the height where it is mounted) and expected radial ice loading. [See EIA 222F or G]
For near maximum performance on a single band (or set of single bands) with a tower that is at least one wavelength high, a yagi with at least three elements is hard to beat - especially if one mounts additional antennas on the same rotating mast.

For about 1 to 2 db less than what can be achieved with a (single band) yagi, and perhaps that much more than many triband beams, - on a tower that is at least one wavelength high at the lowest frequency - one may cover all of the HF bands from 14 MHz up with one LPDA (log periodic). In my opinion, on the higher HF bands, most radio amateurs will be best served with a LPDA in view of the span of frequencies now available and the lack of a need to tweak well designed examples of such antennas.
73 Mac N8TT

--
J. Mc Laughlin - Michigan USA

"Dave Shrader" <david.shrader@comcast.net> wrote in
<snip>
>
> And, I would use a Log Periodic!! I give up about 1 dB in gain and
> acquire a 13.5 MHz to 33 MHz broadband antenna, no traps, full legal
> power handling capability and a VSWR <2:1 across the full range. That
> means 20, 17, 15, 12 and 10 meters all in ONE Beam.
>
> W1MCE
>

2553. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 21:49:17 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <_IwXb.27906$gl2.11951@lakeread05>
Source record: 99875

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:c0ji6c$ee7$1@newshost.mot.com...
> Diathermy was mentioned in the longwire exposure thread and made me think
of
> this long standing problem here in northern IL..
>
> For some years now, there has been interference on the local 2M repeater
> (145.41) which sounds just like the diathermy I used to hear on 10M long
> ago. I could tell that it was a crude 60/120Hz. modulated signal which
> swept through the repeater input frequency.

It could also be a parasitic oscillation in a VHF transmitter as well.
Pager,
police, taxi... Use the spectrum analyzer to see if any nearby activity
jives with the buzzzzzzz.

Pete

2554. Re: Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 22:06:08 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c0m64g$flhf$1@news3.infoave.net>
Source record: 99876

3dB is about 1/2 of an S-unit, not a big deal on receiving FM.

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c0kvhg$16lqoi$1@ID-150848.news.uni-berlin.de...
> Hi. Is there a standard way to measure antenna bandwith? Is it within
3dB
> down of maximum gain, or is it between SWR limits?
>
> I'm looking at an FM receiving yagi that is advertised as covering the
> frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is the
> received signal going to be 3dB down at the band edges or what?
>
> I notice that there are commecial yagis (that are probably suitable for
> transmission) that have 150-174 Mhz in their description. Yet they are
> stated as having a bandwidth of say 1.3 Mhz. What's the deal here?
>
>

2555. Re: Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-14 22:14:16 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0m6hp$19478k$1@ID-150848.news.uni-berlin.de>
Source record: 99877

"W4JLE" <w4jle(remove to reply)@pbtcomm.net> wrote in message
news:c0m64g$flhf$1@news3.infoave.net...
> 3dB is about 1/2 of an S-unit, not a big deal on receiving FM.

Yes, but maybe the antenna is not being measured at 3 dB points.

I ought to ask the manufacturer. Maybe they won't say. :c)

> "Richard" <nearlynews_email@ntlworld.com> wrote in message
> news:c0kvhg$16lqoi$1@ID-150848.news.uni-berlin.de...
> > Hi. Is there a standard way to measure antenna bandwith? Is it within
> 3dB
> > down of maximum gain, or is it between SWR limits?
> >
> > I'm looking at an FM receiving yagi that is advertised as covering the
> > frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is
the
> > received signal going to be 3dB down at the band edges or what?
> >
> > I notice that there are commecial yagis (that are probably suitable for
> > transmission) that have 150-174 Mhz in their description. Yet they are
> > stated as having a bandwidth of say 1.3 Mhz. What's the deal here?
> >
> >
>
>

2556. Re: Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 00:16:13 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <402d63a8_2@newsfeed.slurp.net>
Source record: 99878

Couldn't comment on the ccommercial antennas, but most ham radio antennas
are measured between 2:1 VSWR points. This, of course says nothing about
their potential performance as receiving antennas...

Mike KI6PR
El Rancho R.F., CA

"Richard" wrote
> Hi. Is there a standard way to measure antenna bandwith? Is it within
3dB
> down of maximum gain, or is it between SWR limits?
>
> I'm looking at an FM receiving yagi that is advertised as covering the
> frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is the
> received signal going to be 3dB down at the band edges or what?
>
> I notice that there are commecial yagis (that are probably suitable for
> transmission) that have 150-174 Mhz in their description. Yet they are
> stated as having a bandwidth of say 1.3 Mhz. What's the deal here?
>
>

2557. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 00:23:15 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <402d6544_6@newsfeed.slurp.net>
Source record: 99879

As an experiment, if you're looking for something for both channels 57 and 69, cut your yagi for the frequency right between them, and it should cover both. #14 wire is relatively flimsy - are you using this indoors? If not, you will want to tape it down to a frame of some type (wood, pvc, etc.).

Also, bear in mind that a yagi is a directional array; you'll have to point it at the transmitter you're trying to see. Ultimately, your 3-el guinea pig antenna will outperform the bowties, especially since they have no reflector. In the long run, you will probably be very happy with a commercial UHF yagi...

Mike KI6PR
El Rancho R.F., Ca

"cme" wrote
> I've read all the ham sites and I was hoping someone could enlight me.
Some
> of the questions may seem dumb, but i figure there is no dumb question
> unless you dont ask it.
> I'm making a yagi antenna for channel 57,
> I'm thinking of using 14 copper wire for dipole element and the 14 gage
wire
> for reflector and director elements, just ot see if I can get it to work
> better. actually thinking of use the channel 69 to make the antenna to cut
> the peices of antenna.
> Will I be able to pull 57 easier. Presently have a 4 elemnet bowtie
Delhi
> uhf antenna. want to play with a yagi before buying one, to see if it
works
> better, with out dropping the cash. would stacking another one on top of
> the 4 bowtie on top of the present one give me anymore gain???? theres no
> refector on mine. I'm half way in between 2 areas buffalo and toronto
> transmission towers.
> Not being a ham I know you have to tune the antenna for impediance I
guess.
> Can I use a 300 to 75 ohm transformer or how would I find the impediance
of
> the antenna If I made it from 14 gage house wire.
> What if I use 300 twin antenna wire for the active element and 14 gage
wire
> for the refectors and directors?
>
> Are the reflectors and directors NOT connected to the active element.
>
> I would appreciate any good sites on building your own TV antenna or any

> info. in this area.
> talked to alot of antenna tv shops and I get no help, so I decided to trry
> and build a experimntal unit before droping the cash on another uhf
antenna.
>
>
>
>
>
>

2558. Any comments on LDG Z-100?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 01:12:04 UTC
From: Dave K6DLW <k6dlw@skyhighway.com>
Message-ID: <c0mhbh01squ@enews2.newsguy.com>
Source record: 99880

I am looking at one of these for use with my mobile station. It is a Kenwood TS50S and Hamstick. Anyone using one? How is it working? Thanks.

Dave K6DLW

2559. Re: Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 01:45:17 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <gojt20do2gu8c6s7b6a8a6480unmocucgk@4ax.com>
Source record: 99881

On Sat, 14 Feb 2004 11:08:39 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:

>Hi. Is there a standard way to measure antenna bandwith? Is it within 3dB
>down of maximum gain, or is it between SWR limits?
>
>I'm looking at an FM receiving yagi that is advertised as covering the
>frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is the
>received signal going to be 3dB down at the band edges or what?
>
>I notice that there are commecial yagis (that are probably suitable for
>transmission) that have 150-174 Mhz in their description. Yet they are
>stated as having a bandwidth of say 1.3 Mhz. What's the deal here?
>

They are usually showing you that these antennas are available
anywhere in that frequency range but you have to specify what 1.3 mhz
part you actually want. The antenna will be cut to operate only in
that 1.3 mhz range. It is usually swr band width that it is specked
at. Gain band width may be different.

73
Gary K4FMX

2560. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 01:54:36 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <5akt201pbne903tdq5gb0fbrnvfsk62nop@4ax.com>
Source record: 99882

Horizontally stacking yagi antennas will give you a deep null. The
horizontal distance determines where that null falls with respect to
the main beam of the pair. Cable tv systems sometimes employ this
method to get rid of an interfering station. You can probably find
some information as to spacing requirements in cable tv handbooks or
antenna manufacturers that supply antennas to them.

Horizontal stacking will give you a much sharper beam width than a
single yagi also.

Not sure of the polarization of the fm stations where you are but in
the US they all transmit both horizontal and vertical.

73
Gary K4FMX

On Sat, 14 Feb 2004 14:21:12 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:

>I'm trying to receive some a distant FM stations, but I have locals 0.1Mhz
>away that block the desired station out. I could try to use a big gain
>directional yagi, but perhaps the solution is to make use of a null.
>
>Anyone know of any antenna system that would produce a real good null in
>the FM band? Would that be to try for a cardoid pattern? Or is there
>something better than that?
>
>
>Detail:
>
>Intended Coord.of Interfering Coord.of Angular
>station + antenna station + antenna sep. of
>Freq. Freq. stations
>Mhz Mhz from my
> QTH
>---
>Scarboro' 00w24/ RadioAire 01w34/ 45
>96.2 54n16 96.3 53n44 degrees
>
>Bridlington 00w12/ Pulse FM 01w45/ 114
>102.4 54n05 102.5 53n48 degrees
>
>Whitby 00w36/ Sunrise Radio 01w45/ 75
>103.1 54n29 103.2 53n50 degrees
>
>

>As you see the seperation between the wanted stations and the interfering
>stations range from appx.45 degrees to 114 degrees. Intefering stations are
>always anticlockwise to the wanted station, but perhaps that makes no div.
>
>BTW I think the Bridlington transmitter antenna coordinates are 00w12/54n05.
>Wonder if anyone can confirm this.
>
>Data obtained from:
>
>http://www.ukwtv.de/fmlist/countries.html
>
>Where Bridlington is on107.4 Mhz, which is now incorrect, because
>Bridlington is on 102.4Mhz.
>
>TIA.Rich.
>
>

2561. Re: Any comments on LDG Z-100?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 02:02:26 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <c0mjvk$193lop$1@ID-213023.news.uni-berlin.de>
Source record: 99883

"Dave K6DLW" <k6dlw@skyhighway.com> wrote in message
news:c0mhbh01squ@enews2.newsguy.com...
> I am looking at one of these for use with my mobile station. It is a
Kenwood
> TS50S and Hamstick. Anyone using one? How is it working? Thanks.
>
> Dave K6DLW
>
>

I use mine with a FT-817/K5OOR amp/Van Gorden all bander
dipole. Works great!

You'd have to put a gun to my head to get my Z100......

Ken KG0WX

2562. Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 02:20:36 UTC
From: w9juc@comcast.net
Message-ID: <f4306045.0402141820.16067c62@posting.google.com>
Source record: 99884

The following web page shows azimuth and elevation projection comparisons for a 2 element quad with quarter wave spacing vs. 3 element Yagi vs. 2 element delta loop driven array (both elements driven.)

(A larger image is available by clicking on the smaller images.)

http://www.gopherlink.com/DeltaXray/3x3-Graph-Compare-Detailed.html

2563. Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 02:30:24 UTC
From: "Bruce D. Meyer" <bdmeyer44@msn.com>
Message-ID: <4RAXb.8765$eL2.841323@twister.southeast.rr.com>
Source record: 99885

I park in a parking garage at work, so my 2 meter anetnnae won't fit on the car (P.T. Cruiser) while in the garage. Removing it, just before entering the garage is not an option. Does anyone have a recomendation on an alternate 2 meter antennae?

Bruce Meyer
www.kg4tac.net

2564. Antenna Recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 02:50:59 UTC
From: Ice Sickle <faken.emailen@addren.net>
Message-ID: <n8BXb.9282$cE3.11704383@news4.srv.hcvlny.cv.net>
Source record: 99886
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

thinking of ditching my Cable provider and since im only
using basic cable package i won't be missing out on anything if cancel their
service. However i think the reception in my area is kind of bad because i
can barely speak on my cellular phone. So i need someone to help me pick the
antenna im going to buy:
I figure I should go with amplified antennas:
http://www.bestbuy.com/site/olspage.jsp?navHistoryAcc=cat08000%2Bcat08051%2Bcat08079&id=ca
t08079&navLevelAcc=3&type=category

They have several options on this page. I'm living in a heavily populated
area with a lot of bulding nearby but i do live on a forth floor of a 6
story building so hopefully that will help
http://www.bestbuy.com/site/olspage.jsp?id=cat08081&type=category

2565. Re: Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 02:57:40 UTC
From: Pete Holden <peter.holden@comcast.net>
Message-ID: <DeBXb.37904$jk2.84617@attbi_s53>
Source record: 99887

> I had a similar problem. It turned out to be the "ice-cube-tray-dumping"
> motor in the ice maker in my freezer. I didn't find it until long after I
> had had the power company come out and inspect their HV line, up about 40'
> and their transformers. Naturally they didn't have any problems.
> 73 DE N6UF, Jim
>

Oh brother! That makes me wonder about all the nearly "untold" devices and gizmos I have around the house.

Thanks again, folks... I'm still looking -- or will be when it shows up again.

Pete

2566. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 03:31:59 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <PKBXb.39939$uV3.71092@attbi_s51>
Source record: 99888

Time wise it could be an RF drier for resin.
Lexan for one has to be thoughly dried before molding which would be around start of the shift. If the top is not fully closed or the electrician has left the rear panel off then the R.F. would get out. The bottle used has about 6Kv on it at about .4A so even without an antenna the interference can be widespread in the area that you mentioned.
Art
"Ed Price" <edprice@cox.net> wrote in message
news:jaoXb.72863$fD.59039@fed1read02...
>
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:c0ji6c$ee7$1@newshost.mot.com...
> > Diathermy was mentioned in the longwire exposure thread and made me
think
> of
> > this long standing problem here in northern IL..
> >
> > For some years now, there has been interference on the local 2M repeater
> > (145.41) which sounds just like the diathermy I used to hear on 10M long
> > ago. I could tell that it was a crude 60/120Hz. modulated signal which
> > swept through the repeater input frequency.
> > It is easily readable on the input over an area at least 3x3 miles. No
> one
> > has had the time to spend and I (with some pretty good equip) only went
> out
> > a few times (can't spend a lot of time on the way to work... & when I'm
> > off, it isn't very active), but have limited time as well.
> >
> > . It is more active in the morning rush hour and rarely later in the
day
> > and probably never on weekends.
> >
> >
> > It has to be some kind of RF heating machine, right? Plastic sealing?
> >
> >
> > Here is a full symptom account to show that I know what characteristics
it
> > has.
> > I took a spec analyzer out and could see the signal sweeping down at
least
> > five MHz. (where I had it set at the time). I can hear it sweep through
> > sometimes slowly and sometimes quickly. It so happens that it
> conveniently

> > slows down and comes to a stop right around the repeater input -
sometimes
> > ON the input, but spends no more than 2-3 seconds if it happens to stop
> > there AND stay on long enough. It has a variable time "on"and doesn't
> > always make it to the input freq.
> > Now that the repeater is using CTSS full time (last Sept or Oct another
> > fulltime input spur appeared!) , it doesn't bring up the repeater.
> However,
> > you can hear it as it comes into the input across the freq -- if it is
> > strong enough it will eventually capture and the station talking will go
> > away, PL detect dies, the beep goes, then this reverses as it continues
> > through the input freq.
> >
> > --
> > Steve N, K,9;d, c. i My email has no u's.
> >
> >
>
> Plastic sealing, using dielectric heating, is often done with the ISM at
> 27.125 MHz. Loading of the machine might (but isn't supposed to) pull the
> frequency. The 5th harmonic is a long way from the 2-meter band, and so is
> the 6th. If the RF source is quite close to the repeater, maybe you are
> seeing an image response to the 5th harmonic.
>
> You don't need to have a heavy-industrial setting; I once tracked some RF
> unhappiness in Milwaukee to a neighborhood shop making vinyl auto tops.
>
> Ed
> wb6wsn
>

2567. Re: Success likely in the null?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 03:33:00 UTC
From: David Ryeburn <ryeburn@sfu.caz>
Message-ID: <ryeburn-B3A11B.19325914022004@morgoth.sfu.ca>
Source record: 99889

In article <c0laqt$18otlr$1@ID-150848.news.uni-berlin.de>,
"Richard" <nearlynews_email@ntlworld.com> wrote:

> I'm trying to receive some a distant FM stations, but I have locals 0.1Mhz
> away that block the desired station out. I could try to use a big gain
> directional yagi, but perhaps the solution is to make use of a null.

Putting the undesired signal in an antenna null is a great idea, provided the undesired signal is coming from one direction only. If there is multipath propagation, that may not be true. How are you going to null out several different bounced versions of the signal simultaneously?

In North America FM broadcast channels are spaced 200 kHz apart rather than the 100 kHz spacing you indicate. But even then there can be adjacent channel problems.

One signal which I would like to listen to comes from a low powered repeater station (43 watts effective radiated power) on 91.1 MHz with antenna at an altitude of 1316 m and about 80 km south of where I live; there are a few low hills in the way so the path is not line of sight but the signal strength, in the absence of interference, is quite adequate. High altitude can help make up for low power.

There are two interfering signals. One is on 90.9 MHz, has antenna at about 800 m altitude, has much higher power, and is less than 20 km away but is behind a nearby low ridge so that the signal is diffracted and also arrives from lots of directions due to bounces. The other interfering signal is on 91.3 MHz, is of even higher power than the nearby one, has a much lower antenna since it is located on an island with no nearby high points, and is located slightly closer than the desired station. It too arrives from lots of directions at once.

I used to be able to receive the 91.1 MHz station quite well, even when using a whip antenna on an ordinary kitchen radio. (Actually it was on 91.3 MHz then; it moved 200 kHz lower when the 91.3 MHz station came on the air.) Reception using a good Yagi antenna connected to an excellent stereo FM tuner became difficult when the higher frequency one came on the air, and became impossible when the nearby lower frequency one came on the air. So now I listen to the main transmitter on 88.5 MHz, perhaps 200 km away, whose repeater I used to receive very well, but I listen to it via our cable connection. I believe that the cable company's reception antennas are up on one of the mountains to the north where the nearby interfering station's antenna is located. I don't know whether they actually pick up the 88.5 MHz main transmitter signal or the closer 91.1 MHz low powered repeater signal, but up where their receiving

antenna are, both paths should be line of sight or nearly so. When I am in my car, using an extremely sensitive and quite selective Sony receiver, reception of the repeater station becomes possible when I drive perhaps 20 km closer to it than my home, but by that time the main station's signal is also strong enough for quite acceptable listening quality.

David, ex-W8EZE

--
David Ryeburn
ryeburn@sfu.caz
To send e-mail, use "ca" instead of "caz".

2568. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 04:11:49 UTC
From: Lloyd Mitchell <lloydm75@hotmail.com>
Message-ID: <qiCXb.68957$uS3.25164@bignews4.bellsouth.net>
Source record: 99890

There is a motorized antenna for situations like yours. I have seen it in
AES and Ham Station literature..

Mitch KD4HTW

"Bruce D. Meyer" <bdmeyer44@msn.com> wrote in message
news:4RAXb.8765$eL2.841323@twister.southeast.rr.com...
> I park in a parking garage at work, so my 2 meter anetnnae won't fit on
the
> car (P.T. Cruiser) while in the garage. Removing it, just before entering
> the garage is not an option. Does anyone have a recomendation on an
> alternate 2 meter antennae?
>
> Bruce Meyer
> www.kg4tac.net
>
>

2569. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 04:49:59 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <402efd09_2@news1.prserv.net>
Source record: 99891

Steve:

Sorry to speak of your employer like this, but this is unfortunately a true story. I can provide names, dates and times. Doesn't have to be on a nearby frequency. When Micor series radios were first delivered, Motorola told shops not to tune the finals of the base transmitters after installation (!!!!). There was a brand new Micor high band pager here which had a spur on 440 when cold, but not later in the day (sound familiar yet?). Drifted through the 440 machine(s) input(s) all morning, buzzing away, with also some commercial FM broadcast content also. Two spectrum analyzers and 3 months were necessary to nail the problem, and a quiet promise to make their 400 foot tower about 398 feet shorter one night got them to tune the $&*%* thing and fix the problem. They quoted the Motorola directive to me when I first contacted them. However, given my reputation, they believed the promise and went against Motorola's advice.

--
Crazy George
Remove N O and S P A M imbedded in return address
" Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message
news:_IwXb.27906$gl2.11951@lakeread05...
>
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:c0ji6c$ee7$1@newshost.mot.com...
> > Diathermy was mentioned in the longwire exposure thread and made me
think
> of
> > this long standing problem here in northern IL..
> >
> > For some years now, there has been interference on the local 2M repeater
> > (145.41) which sounds just like the diathermy I used to hear on 10M long
> > ago. I could tell that it was a crude 60/120Hz. modulated signal which
> > swept through the repeater input frequency.
>
>
> It could also be a parasitic oscillation in a VHF transmitter as well.
> Pager,
> police, taxi... Use the spectrum analyzer to see if any nearby activity
> jives with the buzzzzzzz.
>
> Pete
>
>

2570. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 05:11:12 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <402EFF70.1600514C@cwis.net>
Source record: 99892

Bruce,
I would think a 1/4 wave (about 19") should fit.
'Doc

2571. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 05:22:30 UTC
From: Spike <spike@vollyball.net>
Message-ID: <402f0309$1_7@corp.newsgroups.com>
Source record: 99893

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c0aflk$25u$1@hercules.btinternet.com...
> "Whoopydoo"
> > A long wire balun or should we say unun is a great help for converting
the
> > high impedance of a very long wire compared with frequency to an
impedance
> > that is much closer to 50 ohms....
> >
> ========================
>
> Only half right.
>
> If the input impedance of a long wire is LESS THAN 50 ohms then a unun
makes
> it worse.
> ----
> Reg
>
>
If the input impedance of the wire is less than 50 ohms then either
1) it is not a long wire, it is a short wire,or
2) it is in intimate contact with the ground or counterpoise it is being
worked against;
if ground then it is a buried radial; if counterpoise then it's half a
transmission line.

The e-mail is fake. A real one is on QRZ.
KC5UES

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2572. diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 07:50:58 UTC
From: Steve Trook <strook@optonline.net>
Message-ID: <CxFXb.9508$cE3.13107190@news4.srv.hcvlny.cv.net>
Source record: 99894

Soon to be new to HF. I need help in choosing a dipole. I want to work
10-80 meters but low on space.....any ideas? help??

2573. Re: looking 4 this operator?help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 08:35:30 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <gbGXb.73107$fD.21461@fed1read02>
Source record: 99895

"Incognito" <BLB@sero.net> wrote in message
news:ThvXb.16850$IF1.10516@fed1read01...
> Just an idea -- go to qrz.com choose name search
> type in "Corinth Tx"

snip

> Incognito By Necessity (:-(
>
> If you can't convince them, confuse them.
> - - -Harry S Truman

If you can't convince them, nuke 'em!

Ed
wb6wsn

2574. Re: Antenna Recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 11:16:17 UTC
From: Leigh <news_nospam@leighs.org>
Message-ID: <Xns9490721F5221BIfartusmeltit@130.133.1.17>
Source record: 99896
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

"Ice Sickle" <faken.emailen@addren.net> wrote in
news:n8BXb.9282$cE3.11704383@news4.srv.hcvlny.cv.net:

> thinking of ditching my Cable provider and since im only
> using basic cable package i won't be missing out on anything if cancel
> their service. However i think the reception in my area is kind of bad
> because i can barely speak on my cellular phone. So i need someone to
> help me pick the antenna im going to buy:
> I figure I should go with amplified antennas:
> http://www.bestbuy.com/site/olspage.jsp?navHistoryAcc=cat08000%2Bcat080
> 51%2Bcat08079&id=cat08079&navLevelAcc=3&type=category
>
> They have several options on this page. I'm living in a heavily
> populated area with a lot of bulding nearby but i do live on a forth
> floor of a 6 story building so hopefully that will help
> http://www.bestbuy.com/site/olspage.jsp?id=cat08081&type=category

Yes.

No.

Maybe.

Why not 'try'?

2575. Re: Antenna Recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 11:27:14 UTC
From: mike <mike@nospam.co.uk>
Message-ID: <mIIXb.5934$vo1.4051@newsfep4-winn.server.ntli.net>
Source record: 99897
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

the fact that the phone is of no good as such has little to do with if tv is
any good.
that depends on the nearest cell.
i'd plumb for a freeview box (about £60) but as with tv your flat must be
facing the right way or your snookered.

use the postcode bit on the freeview site etc to see if you are covered then
work out which way you need to point the aerial.

a good guide to this or terrestrial tv answers is to look on roofs.
which way are they pointing?
if you can point that way for either system, then bingo you've cracked it.
i doubt you will need much or any amplification in line being so high.

the BBC site under transmitters will also confirm your nearest one & which
way to point

mike

"Ice Sickle" <faken.emailen@addren.net> wrote in message
news:n8BXb.9282$cE3.11704383@news4.srv.hcvlny.cv.net...
> thinking of ditching my Cable provider and since im only
> using basic cable package i won't be missing out on anything if cancel
their
> service. However i think the reception in my area is kind of bad because i
> can barely speak on my cellular phone. So i need someone to help me pick
the
> antenna im going to buy:
> I figure I should go with amplified antennas:
>
http://www.bestbuy.com/site/olspage.jsp?navHistoryAcc=cat08000%2Bcat08051%2Bcat08079&id=ca
t08079&navLevelAcc=3&type=category
>
> They have several options on this page. I'm living in a heavily populated
> area with a lot of bulding nearby but i do live on a forth floor of a 6
> story building so hopefully that will help
> http://www.bestbuy.com/site/olspage.jsp?id=cat08081&type=category
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.588 / Virus Database: 372 - Release Date: 13/02/2004

2576. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 11:55:27 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <P6JXb.41058$uV3.73579@attbi_s51>
Source record: 99898

Bill Turner wrote:

> On Sat, 14 Feb 2004 16:35:21 -0500, "J. McLaughlin" <JCM@Power-Net.Net>
> wrote:
>
>
>>For about 1 to 2 db less than what can be achieved with a (single
>>band) yagi,
>
> <snip>
>
> Hard core DXers will commit mayhem for one dB and will kill for two.
> That's why they don't use LPDA's.
>
Hard core DXers have their Long Johns tuned to 14.025 MHz and won't work more than 25 KHz from that frequency!

If you read the beginning of this post it refers to 'many hams'.

If you want maximum gain on one frequency, or sub-band, then I agree that a Long John tuned to your favorite frequency is the way to go. But, if you want good to very good performance across the whole HF spectrum from 13.5 to 33 MHz, or higher, in ONE antenna then the ONLY choice, IMO, is a LPDA.

There is a solid reason why the governments of the world use LPDAs for State Department, FAA and Defense HF communications.

2577. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 11:59:25 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <xaJXb.39183$jk2.86580@attbi_s53>
Source record: 99899

These images appear to be for Maximum Gain. Look at the VSWR curves. You will need a tuner to get today's rigs to load any of these antennas.

Rich wrote:

> The following web page shows azimuth and elevation projection
> comparisons for a 2 element quad with quarter wave spacing vs. 3
> element Yagi vs. 2 element delta loop driven array (both elements
> driven.)
>
> (A larger image is available by clicking on the smaller images.)
>
> http://www.gopherlink.com/DeltaXray/3x3-Graph-Compare-Detailed.html

2578. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 13:46:34 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <G5ydnUE0p9_D97Ld4p2dnA@ctc.net>
Source record: 99900

"Mikey" <ki6pr@arrl.net> wrote in message
news:402d6544_6@newsfeed.slurp.net...
> As an experiment, if you're looking for something for both channels 57 and
> 69, cut your yagi for the frequency right between them, and it should
cover
> both. #14 wire is relatively flimsy - are you using this indoors? If
not,
> you will want to tape it down to a frame of some type (wood, pvc, etc.).
>

Simple yagi antennas are relative narrow band antennas. They are not too effective for that broad of a frequency range. Also for many they are more like a low pass filter in that at frequencies below the designed one the pattern is not too bad but going above the designed frequency the pattern falls apart very rapidly. If anything design the antenna for the highest frequency used.

2579. FM Antenna/Frequency Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 13:57:52 UTC
From: stargazer_1955@yahoo.com
Message-ID: <59792b9f.0402150557.42bca1ab@posting.google.com>
Source record: 99901

I have Radio Shack's best outdoor FM antenna, a rotor, and an inline amplifier. I am trying to improve reception of a FM station about 110 miles away at 91.1 FM. A station 20 miles away at 91.3FM interferes with clear reception. I have tried several indoor FM radios(analog & digital) and can "poorly" tune 91.1FM in at one direction on the antenna. But, however, on the car radio 91.1 FM comes in "very good" in the immediate area. What can I do to improve the indoor reception? Thanks.

2580. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 14:16:50 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <9nvu20h9cqt0rjt6qvvi3mehsdf6hrsv8k@4ax.com>
Source record: 99902

On Sun, 15 Feb 2004 02:30:24 GMT, "Bruce D. Meyer" <bdmeyer44@msn.com>
wrote:

>I park in a parking garage at work, so my 2 meter anetnnae won't fit on the
>car (P.T. Cruiser) while in the garage. Removing it, just before entering
>the garage is not an option. Does anyone have a recomendation on an
>alternate 2 meter antennae?
>
>Bruce Meyer
>www.kg4tac.net
>

One option would be a license plate mount -- see the Lakeview ham
stick site.

Just mount the thing lower on the car.

Bob
k5qwg

2581. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 14:22:04 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <e00v20ta4jtqmnpqucilhsg6tsfinh4bi5@4ax.com>
Source record: 99903

On Sun, 15 Feb 2004 07:50:58 GMT, "Steve Trook" <strook@optonline.net>
wrote:

>Soon to be new to HF. I need help in choosing a dipole. I want to work
>10-80 meters but low on space.....any ideas? help??
>

See the March 2004 QST article on the "classic multi-band dipole."

Also, the ARRL Antenna Handbook will give you a lot of ideas.

bob
k5qwg

2582. Doublet Info

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 14:24:59 UTC
From: Jim Widener <jwide@tricon.net>
Message-ID: <OmLXb.10024$FO.1951@fe01.usenetserver.com>
Source record: 99904

I am thinkng about installing a 66' doublet, center fed with 450 ohm ladder line for multi band operation. All of the literature I've seen on this antenna discusses it as a flat top antenna. I am considering an inverted v due to space limitations but I'm not sure how this might affect performance. Has anyone tried this or know how it might perform?
Jim, W4VJ

2583. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 14:38:11 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <utLXb.1123$O%4.70@newsfep3-gui.server.ntli.net>
Source record: 99905

Or a vertical with an SGC at the bottom with some counterpoise / earth rods
or an inverted V with an SGC at the centre and wires sloping down to a
few feet off the ground.
Not related to SGC other than as an impressed customer of some time
and have two others to whom I have suggested this who are equally
impressed for an aerial of modest dimensions

Nick

2584. Re: Antenna Recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 14:42:50 UTC
From: Rv! <no@spam.here.thanks>
Message-ID: <1076856166.8413.0@lotis.uk.clara.net>
Source record: 99906
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

> i'd plumb for a freeview box (about £60) but as with tv your flat must be
> facing the right way or your snookered.

He's a US based hamster.

Rv!

2585. Re: Doublet Info

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 14:51:09 UTC
From: Dave <noone@nowhere.com>
Message-ID: <weqdnXiJFqT8GrLdRVn-sw@crocker.com>
Source record: 99907

it will work just fine. the higher and flatter you can get it the better it
may be.

"Jim Widener" <jwide@tricon.net> wrote in message
news:OmLXb.10024$FO.1951@fe01.usenetserver.com...
> I am thinkng about installing a 66' doublet, center fed with 450 ohm
ladder
> line for multi band operation. All of the literature I've seen on this
> antenna discusses it as a flat top antenna. I am considering an inverted v
> due to space limitations but I'm not sure how this might affect
performance.
> Has anyone tried this or know how it might perform?
> Jim, W4VJ
>
>
>

2586. Re: FM Antenna/Frequency Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 14:57:54 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0o1bk$19dqh4$1@ID-150848.news.uni-berlin.de>
Source record: 99908

Norman wrote:
> I have Radio Shack's best outdoor FM antenna, a rotor, and an inline
> amplifier. I am trying to improve reception of a FM station about 110
> miles away at 91.1 FM. A station 20 miles away at 91.3FM interferes
> with clear reception. I have tried several indoor FM radios(analog &
> digital) and can "poorly" tune 91.1FM in at one direction on the
> antenna. But, however, on the car radio 91.1 FM comes in "very good"
> in the immediate area. What can I do to improve the indoor reception?
> Thanks.

Hi.

I've got a simaler situation, trying to receive a distant FM station with a
local only 100Khz, (0.1 Mhz) away.

Don't know if these will help.

http://www.geocities.com/toddemslie/phase_cancellation.htm

http://www.anarc.org/wtfda/stagger.pdf

http://www.kyes.com/antenna/stacking.html

http://pages.cthome.net/fmdx/phase.html

http://www.dishplace.com/product_info.php/cPath/158_162/products_id/1590

2587. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 15:00:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402f8a57$1_6@corp.newsgroups.com>
Source record: 99910

Bruce D. Meyer wrote:
> I park in a parking garage at work, so my 2 meter anetnnae won't fit on the
> car (P.T. Cruiser) while in the garage. Removing it, just before entering
> the garage is not an option. Does anyone have a recomendation on an
> alternate 2 meter antennae?

A friend of mine just runs a mag-mount on his hood. MFJ advertises
the RuffRider Junior 1402 as "fits in any garage on any auto". It
is only 16.5" tall.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2588. Re: Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 15:02:28 UTC
From: "Carl R. Stevenson" <wk3cqth@wk3c.com>
Message-ID: <VpadnTULQejaF7LdUSdV9g@ptd.net>
Source record: 99909

While I can't guarantee it, from your description, it sounds suspiciously
like the OFDM version of BPL to me ...

Where are you geographically located?

Check out the videos at the ARRL site ... If I recall correctly, the last
test area on
the video is the OFDM system ...

Video showing results of ARRL testing in MD, VA, PA and NY
Internet: http://216.167.96.120/BPL_Trial-web.mpg - for those with broadband
access
Internet: http://216.167.96.120/BPL_Trial-small.mpg - for those with slower
access
Author: ARRL technical staff
I am cc'ing Ed Hare of ARRL on this - he may be able to shed additional
light on this and will probably want to correspond with you by e-mail.

It is VERY important that cases of BPL interference be determined
conclusively and well-documented - we can't afford to "cry wolf" at this
critical juncture.

73,

Carl - wk3c

"Pete Holden" <peter.holden@comcast.net> wrote in message
news:zjTWb.290841$I06.2983429@attbi_s01...
> On my Icom 756 spectrum scope I'm getting S9 peaks every 2kHz or so all
> across the HF spectrum from 3mHz to 30mHz. This doesn't look at all like
> QRN since it's regular and discrete and they're narrow signal peaks,
> narrower even than a ham cw signal, all peaks the same strength. When I
> switch to a vacant antenna position, or to my dummy load, there is
nothing,
> so I'm assuming it isn't coming over the AC line. The noise signal is
> stronger on my vertical antenna than on my horizontal loop.
>
> I've seen this before, intermittently -- one minute on, two min off, 20
> seconds on, etc. But, today it's been going on for at least a couple of
> hours.
>
> Ideas anyone?
>
> Thanks, Pete
>
>

2589. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 15:10:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402f8ce4_6@corp.newsgroups.com>
Source record: 99912

Steve Trook wrote:
> Soon to be new to HF. I need help in choosing a dipole. I want to work
> 10-80 meters but low on space.....any ideas? help??

The G5RV length, 102 feet, will work on 75m-10m fed with ladder-line through a balanced tuner. Another idea is to put up a 50-66 ft dipole center fed with ladder-line for 40m-10m. Short the two lines together at the tuner output for 75m. This is called feeding it Marconi style and requires a counterpoise. The ARRL Antenna Book contains a wealth of information (most of it valid :-).
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2590. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 15:12:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c0o297$b8e$1@hercules.btinternet.com>
Source record: 99911

> I need help in choosing a dipole. I want to work
>10-80 meters but low on space.....any ideas? help??
>
>
Install the longest and highest dipole which will fit comfortably into your back yard and feed it preferably via open-wire line, or via 450-ohms ladder-line.

If very short of length extend the dipole by converting it into an inverted-U.

Feedline of no particular length. Allow a little exra just in case. Use a simple choke balun between feedline and tuner.

And you will have the best all-directional, nearly-all-band dipole for your particular circumstances.

(Myself, I prefer to use an end-fed inverted-L. It allows 160m to be used.)

Reg.

2591. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 15:28:10 UTC
From: Incognito <BLB@sero.net>
Message-ID: <feMXb.17669$IF1.339@fed1read01>
Source record: 99913

Maybe Diamonds Motorized mount K9000 will work for you -- see URL:
http://www.rfparts.com/diamond/

--
Incognito By Necessity (:-(

If you can't convince them, confuse them.
- - -Harry S Truman

"Bruce D. Meyer" <bdmeyer44@msn.com> wrote in message
news:4RAXb.8765$eL2.841323@twister.southeast.rr.com...
> I park in a parking garage at work, so my 2 meter anetnnae won't fit on
the
> car (P.T. Cruiser) while in the garage. Removing it, just before entering
> the garage is not an option. Does anyone have a recomendation on an
> alternate 2 meter antennae?
>
> Bruce Meyer
> www.kg4tac.net
>
>

2592. So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 15:35:51 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0o3ik$190bks$1@ID-150848.news.uni-berlin.de>
Source record: 99914

...point you web browser to:

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3077597082

It's model CA-815.

2593. Re: So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 15:37:14 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0o3l9$16me6s$1@ID-150848.news.uni-berlin.de>
Source record: 99915

Richard wrote:
> ...point you web browser to:
>
> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3077597082
>
> It's model CA-815.

Yes, it's a ground plane type, but what band/frequency usage?

2594. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 15:42:20 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040215104220.17312.00000280@mb-m13.aol.com>
Source record: 99916

>
>If you want maximum gain on one frequency, or sub-band, then I agree
>that a Long John tuned to your favorite frequency is the way to go. But,
>if you want good to very good performance across the whole HF spectrum
>from 13.5 to 33 MHz, or higher, in ONE antenna then the ONLY choice,
>IMO, is a LPDA.
>
>There is a solid reason why the governments of the world use LPDAs for
>State Department, FAA and Defense HF communications.
>
>

Aaaah, not so fast.
Have you checked StepIR tunable antennas with monobander performance on any frequency within that band? Plus instant pattern flip and much less cumbersome than LP. Read comments from users. This antenna is making LPs obsolete (unless you need spread spectrum instant coverage)

Yuri, K3BU.

2595. Re: So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 16:09:41 UTC
From: andrew <andrew@nospam.co.uk>
Message-ID: <69+acKAFn5LAFwXx@gi0nwg.freeserve.co.uk>
Source record: 99917

In article <c0o3l9$16me6s$1@ID-150848.news.uni-berlin.de>, Richard
<nearlynews_email@ntlworld.com> writes
>Richard wrote:
>> ...point you web browser to:
>>
>> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3077597082
>>
>> It's model CA-815.
>
>Yes, it's a ground plane type, but what band/frequency usage?

The description of the item gives it away a bit. It says...

"Outdoor FM Radio Antenna". Possibly 88-108MHz?

0/10 for observation :)

Andrew Williamson GI0NWG / AC6WI
Homepage = http://www.gi0nwg.freeserve.co.uk/

One of the ZL9CI gang
http://www.qsl.net/zl9ci/

2596. Re: So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 16:19:05 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0o63s$19va07$1@ID-150848.news.uni-berlin.de>
Source record: 99918

"andrew" <andrew@nospam.co.uk> wrote in message
news:69+acKAFn5LAFwXx@gi0nwg.freeserve.co.uk...
> In article <c0o3l9$16me6s$1@ID-150848.news.uni-berlin.de>, Richard
> <nearlynews_email@ntlworld.com> writes
> >Richard wrote:
> >> ...point you web browser to:
> >>
> >> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3077597082
> >>
> >> It's model CA-815.
> >
> >Yes, it's a ground plane type, but what band/frequency usage?
>
>
> The description of the item gives it away a bit. It says...
>
> "Outdoor FM Radio Antenna". Possibly 88-108MHz?
>
> 0/10 for observation :)

Hehe, but the guy who is selling does not know if the description is
correct.

2597. Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 16:29:17 UTC
From: Gary Boyer <gboyer@columbus.rr.com>
Message-ID: <x7NXb.5277$9H3.4688@fe2.columbus.rr.com>
Source record: 99919

I am looking for some suggestions on putting up a 30-40 foot mast or push up pole...it does not have to be the fiberglass poles that you see advertised...the mast would be used for an inverted vee 80 meter antenna only...also, how do you bracket to the house or how would you attach it to something similar...thanks...Gary...K8BY

2598. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 17:03:57 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Od-dnVS9W70cO7LdRVn-tA@comcast.com>
Source record: 99920

"Gary Boyer" <gboyer@columbus.rr.com> wrote in message
news:x7NXb.5277$9H3.4688@fe2.columbus.rr.com...
> I am looking for some suggestions on putting up a 30-40 foot mast or push
up
> pole...it does not have to be the fiberglass poles that you see
> advertised...the mast would be used for an inverted vee 80 meter antenna
> only...also, how do you bracket to the house or how would you attach it to
> something similar...thanks...Gary...K8BY
>
>
I have done this with Radio Shack TV mast house brakets. Be sure to get the
kind that allows the pipe to extend all the way to the ground. If the mast
is bigger than 1-3/8, you may have to drill new holes in the braket and get
bigger U bolts; I got muffler clamps at an auto supply store for that.
Install 2 brakets, one as high as possible, and one about half way down.
Unless your house is very tall, you will still have to guy the top.

Tam/WB2TT

2599. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 17:13:32 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <V-udnQI2vYFcNbLdRVn-uA@comcast.com>
Source record: 99921

A side benefit of the trap dipole is that the traps act as loading coils on the lower bands, and the antenna will be shorter than a dipole cut for the lowest frequency. On 80 meters, unless you are talking about CW, ask yourself if you really want it. Do some listening, and pay attention to what power people are running. A 10 -40 antenna will be half the size.

Tam/WB2TT
"Bill Turner" <noway@nohow.com> wrote in message
news:d9uu20pt7ihdonad72nos7f142buquvr3v@4ax.com...
> On Sun, 15 Feb 2004 07:50:58 GMT, "Steve Trook" <strook@optonline.net>
> wrote:
>
> >Soon to be new to HF. I need help in choosing a dipole. I want to work
> >10-80 meters but low on space.....any ideas? help??
> >
>
> ____
>
> If you don't need wide bandwidth, a trap dipole is simple and works
> well. I use a W9INN type and am happy with it. 80 meter bandwidth is
> pretty narrow, but if you focus on either CW or SSB, not both, it will
> do.
>
> If you want to go to a bit more trouble, install separate dipoles for
> each band and use a remote switching device such as that made by MFJ.
> The dipoles do not have to be straight; the ends can be bent to fit the
> area and will do fine.
>
> --
> 73, Bill W6WRT
> QSLs via LoTW

2600. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 17:17:57 UTC
From: Mr Dygi <dygimailNo@SPAMpoczta.fm>
Message-ID: <Xns9490A94604F0Edygimailpocztafm@127.0.0.1>
Source record: 99922

Bob Miller <bxmiller@texas.netNOSPAM> wrote in
news:e00v20ta4jtqmnpqucilhsg6tsfinh4bi5@4ax.com:

> ARRL Antenna Handbook will give you a lot of ideas.

Is it accessible online? Any link?

--
pzdr. Szynter Krzysztof GG#1027078
mail.to: dygimail(at)poczta(dot)fm
home.site: http://newbie.friko.pl
U WA GA!! jes tem stu den tem :--P

2601. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 17:54:57 UTC
From: "Bruce D. Meyer" <noforhumanconsumption@spambites.wow>
Message-ID: <RnOXb.10199$jx3.1263864@twister.southeast.rr.com>
Source record: 99926

Wow! Excellent replies, each of you. I am checking each one. I shouldn't have waited this long to ask. (It's been over a year since I had a mobile, and the window mounted (external) rubber duck on an HT just doesn't have the reach that a real antennae does. Thanks for your replies, everyone.

Bruce D. Meyer
www.kg4tac.net

"Bruce D. Meyer" <bdmeyer44@msn.com> wrote in message
news:4RAXb.8765$eL2.841323@twister.southeast.rr.com...
> I park in a parking garage at work, so my 2 meter anetnnae won't fit on
the
> car (P.T. Cruiser) while in the garage. Removing it, just before entering
> the garage is not an option. Does anyone have a recomendation on an
> alternate 2 meter antennae?
>
> Bruce Meyer
> www.kg4tac.net
>
>

2602. microstrip antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 18:08:23 UTC
From: ultanir_99@yahoo.com
Message-ID: <c403e21f.0402151008.60765b3@posting.google.com>
Source record: 99923

I am looking for microstrip antennas that work around 400Mhz, and can fit into a key chain. What I heard is; car starters, lockers all have these kind of antennas, but I cannot find any place who sells these things. Could you guys help?

Thanks,
Adam

2603. Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 18:13:23 UTC
From: JEFF UK <Birdnbloke@btopenworld.com>
Message-ID: <c0ocs3$1qo$1@titan.btinternet.com>
Source record: 99924

Hi.
Would some please explain to me the different types of SWL Baluns and
what type should be used for which antenna.?
I use a long wire at the moment. What is best for this.?
1:1, 1:4, 1:9 ??? Not sure what all this means.
Is there a site where i can see different homebrew projects for each of
these ?
All help welcome
Regards
Jeff

2604. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 18:21:53 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <5NOXb.150$9%6.67@newssvr22.news.prodigy.com>
Source record: 99925

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:Od-dnVS9W70cO7LdRVn-tA@comcast.com...
>
> "Gary Boyer" <gboyer@columbus.rr.com> wrote in message
> news:x7NXb.5277$9H3.4688@fe2.columbus.rr.com...
> > I am looking for some suggestions on putting up a 30-40 foot mast or
push
> up
> > pole...it does not have to be the fiberglass poles that you see
> > advertised...the mast would be used for an inverted vee 80 meter antenna
> > only...also, how do you bracket to the house or how would you attach it
to
> > something similar...thanks...Gary...K8BY
> >
> >
> I have done this with Radio Shack TV mast house brakets. Be sure to get
the
> kind that allows the pipe to extend all the way to the ground. If the mast
> is bigger than 1-3/8, you may have to drill new holes in the braket and
get
> bigger U bolts; I got muffler clamps at an auto supply store for that.
> Install 2 brakets, one as high as possible, and one about half way down.
> Unless your house is very tall, you will still have to guy the top.

My house is 23' at the peak... I don't use guys (yet).
I have a house with vinyl siding, so I had to fabricate
a mount that goes off the roof, not the side of the eave.
Basically, it's two 2x4s, about 3' long, lag-bolted to
the surface of the roof about 18" apart at the peak
of the roof, parallel to each other and sticking out
over the side of the house about 6". Then there's a
1x4 lag-bolted across the ends of the 2x4s, with a
U-bolt through it. The mast extends 8' above this
point, with a pulley/rope system to raise and lower
an 80m inverted vee. Push the mast into the ground
as far as you can before tightening the U-bolt, prevents
loosening up later.

I'm using 17ga chain-link top rail, which is one gauge lower
than antenna mast (16ga) and cheaper. I used a galvanised
bracket to be the yardarm for the pulley... it's the same
piece used to hold the end of the chain link to the pole,
about 6" long doubled strap. Counting the rope and pulley,
about $30 in the whole mast setup (minus dipole/etc).

I have used a roof-peak mast mount with good results...
this is the tilt-over bracket that has a mast pocket built in.
With one good set of guys, you can go up 20' from the peak
with not much problem. For this kind of installation I would
not recommend going with the cheaper hardware... use
the 16ga pieces and guy in the middle of the second
section. This route is more expensive, but preferable...
it's strong enough to support some other antennas as
well as the dipole.

If you feed with balanced line, you should take pains that
the feedline is not rattling against the mast... a piece of
string tied to the fence and the middle of the line works
for me. Thankfully, the shack's window is right below
the peak I'm using. There's a ground rod there, of course,
with the mast ground attached below the shack ground.

--
Steve
KI5YG
.

2605. Re: microstrip antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 18:32:58 UTC
From: Dave <noone@nowhere.com>
Message-ID: <vbudnUYqprz_JrLdRVn-vw@crocker.com>
Source record: 99927

try someone who i haven't heard from in this group for a while:
http://www.fractenna.com/

"erdem" <ultanir_99@yahoo.com> wrote in message
news:c403e21f.0402151008.60765b3@posting.google.com...
> I am looking for microstrip antennas that work around 400Mhz, and can
> fit into a key chain. What I heard is; car starters, lockers all have
> these kind of antennas, but I cannot find any place who sells these
> things. Could you guys help?
>
> Thanks,
> Adam

2606. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 18:34:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402fbca5_7@corp.newsgroups.com>
Source record: 99928

Gary Boyer wrote:
> I am looking for some suggestions on putting up a 30-40 foot mast or push up
> pole...it does not have to be the fiberglass poles that you see
> advertised...the mast would be used for an inverted vee 80 meter antenna
> only...also, how do you bracket to the house or how would you attach it to
> something similar...thanks...Gary...K8BY

Guyed Vs self-supporting makes a huge difference. A TV mast comes
in ten foot sections and will work for the above if guyed. TV
telescoping poles are available at Home Depot, Lowe's, Radio Shack,
et al. My favorite is 20 ft of fiberglas pole mounted on top of
20 ft of 2x4s.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2607. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 18:39:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402fbdbc_7@corp.newsgroups.com>
Source record: 99929

Mr Dygi wrote:

> Bob Miller <bxmiller@texas.netNOSPAM> wrote:
>>ARRL Antenna Handbook will give you a lot of ideas.
>
> Is it accessible online? Any link?

You must think the ARRL is a non-profit organization. :-)

Perhaps, this URL will give you some ideas: http://www.cebik.com/
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2608. Re: Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 18:46:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <402fbf53$1_7@corp.newsgroups.com>
Source record: 99930

JEFF UK wrote:
> Would some please explain to me the different types of SWL Baluns and
> what type should be used for which antenna.?
> I use a long wire at the moment. What is best for this.?

A long wire is usually unbalanced. A receiver is usually unbalanced.
No need for a "BALanced-UNbalanced" function.

Assuming your "long wire" is a non-resonant antenna, forget the
balun for SWL. But an antenna tuner might solve the problem you
are trying to solve, i.e. a more efficient transfer of energy
from the antenna to the receiver.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2609. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 20:49:08 UTC
From: Phillip Jockell <philjXXX@spearnet.net>
Message-ID: <Xns9490A0EBCB2D4pj12345pjpj@216.196.97.132>
Source record: 99931

Let me take the opportunity.

This web page is THE standard for antenna information
(www.cebik.com.)

This person has made a real contribution to ham radio.
Wish I understood a third of the great knowlege shown
here.

Thank you Mr. Moore.

Phil - N4GWV

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in
news:402fbdbc_7@corp.newsgroups.com:

> Mr Dygi wrote:
>
>> Bob Miller <bxmiller@texas.netNOSPAM> wrote:
>>>ARRL Antenna Handbook will give you a lot of ideas.
>>
>> Is it accessible online? Any link?
>
> You must think the ARRL is a non-profit organization. :-)
>
> Perhaps, this URL will give you some ideas: http://www.cebik.com/

2610. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 21:05:06 UTC
From: Mr Dygi <dygimailNo@SPAMpoczta.fm>
Message-ID: <Xns9490D7E3D7782dygimailpocztafm@127.0.0.1>
Source record: 99932

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in
news:402fbdbc_7@corp.newsgroups.com:

> You must think the ARRL is a non-profit organization. :-)

I am looking for information about building antenna's (the simplest models)
as much as am looking for free downloadable books for newbies.

> Perhaps, this URL will give you some ideas: http://www.cebik.com/

Thanks

--
pzdr. Szynter Krzysztof GG#1027078
mail.to: dygimail(at)poczta(dot)fm
home.site: http://newbie.friko.pl
U WA GA!! jes tem stu den tem :--P

2611. Re: Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 21:31:21 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0ooe1$19p4hp$1@ID-150848.news.uni-berlin.de>
Source record: 99933

"JEFF UK" <Birdnbloke@btopenworld.com> wrote in message
news:c0ocs3$1qo$1@titan.btinternet.com...
> Hi.
> Would some please explain to me the different types of SWL Baluns and
> what type should be used for which antenna.?
> I use a long wire at the moment. What is best for this.?
> 1:1, 1:4, 1:9 ??? Not sure what all this means.
> Is there a site where i can see different homebrew projects for each of
> these ?
> All help welcome
> Regards
> Jeff
>
Sorry, I just copied all my links:

http://anarc.org/naswa/badx/antennas/
http://users.netonecom.net/~swordman/Radio/unun.htm
http://www.bytemark.com/index.htm
http://www.google.com/
http://members.aol.com/DXerCapeCod/z_transformers.pdf
http://www.palacenet.net/home/mules/antenna.html
http://www.anarc.org/naswa/badx/antennas/low-noise_antenna.html
http://www.hard-core-dx.com/nordicdx/antenna/feed/magbal3.html
http://www.hard-core-dx.com/nordicdx/antenna/feed/magbalun.html
http://www.albany.net/~bg/topband/BeverageXfmrs.htm
http://www.antennex.com/palomar/page_6.htm
http://www.universal-radio.com/catalog/sw_ant/1465.html
http://www.anarc.org/naswa/issues/0398/tech0398.html
http://users.erols.com/r.smith/feed1.html
http://www.wellbrook.uk.com/UMB.html
http://www.wellbrook.uk.com/longwire.html
http://www.cwsbytemark.com/prices/ununs.php
http://www.alphalink.com.au/~parkerp/nojun98.htm
http://www.iserv.net/~n8kdv/xfmr.htm

2612. Re: So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 21:37:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m6pv205tcneq8a0c3ni15kd2h2a49savdr@4ax.com>
Source record: 99934

On Sun, 15 Feb 2004 16:19:05 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:
>> "Outdoor FM Radio Antenna". Possibly 88-108MHz?
>Hehe, but the guy who is selling does not know if the description is
>correct.
>
Hi Richard,

Consider, if you could accumulate half a dozen of these you could then
build your own phased array to take care of your interference (some).

73's
Richard Clark, KB7QHC

2613. Re: So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 21:49:12 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0opfg$19lqn5$1@ID-150848.news.uni-berlin.de>
Source record: 99935

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:m6pv205tcneq8a0c3ni15kd2h2a49savdr@4ax.com...
> On Sun, 15 Feb 2004 16:19:05 -0000, "Richard"
> <nearlynews_email@ntlworld.com> wrote:
> >> "Outdoor FM Radio Antenna". Possibly 88-108MHz?
> >Hehe, but the guy who is selling does not know if the description is
> >correct.
> >
> Hi Richard,
>
> Consider, if you could accumulate half a dozen of these you could then
> build your own phased array to take care of your interference (some).

Yea! :c)

No, what I decided was that I needed to use phase nullinhg/cancelation, I mean adjusting the phase and amplitude of the undesired local signal (got from a dipole or omnidirectional antenna) and combining it with the intefering signal from a directional beam. Which is a different tack than nulling out using nulls in antenna lobe patterns.

I could so with an FM omnidirectional antenna, but the one that is on ebay, I don't think it is an FM antenna, despite the description. Looks possibly a scanner type. But, I don't know.

Rich.

2614. Re: So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 22:28:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cirv20pmff32m5f5tqlbi0vnv8r1ffan69@4ax.com>
Source record: 99936

On Sun, 15 Feb 2004 21:49:12 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:

>> Consider, if you could accumulate half a dozen of these you could then
>> build your own phased array to take care of your interference (some).
>
>Yea! :c)
>
>No, what I decided was that I needed to use phase nullinhg/cancelation, I
>mean adjusting the phase and amplitude of the undesired local signal (got
>from a dipole or omnidirectional antenna) and combining it with the
>intefering signal from a directional beam. Which is a different tack than
>nulling out using nulls in antenna lobe patterns.
>
>I could so with an FM omnidirectional antenna, but the one that is on ebay,
>I don't think it is an FM antenna, despite the description. Looks possibly
>a scanner type. But, I don't know.
>
>Rich.

Hi Richard,

My suggestion is the classic approach and more aggressive than the one
you describe (which uses the same logic).

Basically you set up the several many different antennas and combine
them at one point. Difference is, that before you combine them, you
introduce a delay in each. The delay selected then combines with the
others to perform the cancellation (or addition, depends wholly on the
delays involved).

In some, fixed designs, it is simply a matter of where the many
antennas are located (their physical distance imparts some portion of
delay) and the length of their transmission lines to the combining
point.

Delay is simply a matter of wavelength. For the FM band we are
talking about 3M representing a total of 360 degrees of delay. If two
antennas are separated by 1.5M and combined, they add with 180 degrees
of difference iff their transmission lines are the same length. They
would cancel. If two antennas are separated by 3M and combined, they
add with 360 degrees of delay and add (again, iff their lines are
equal length).

Now, if we took two antennas separated by 3M and combined them through
lines that themselves show 180 degrees different length, then their

combined signals would cancel. So, through the manipulation of line length with fixed antennas, you can either add or negate signals by choice (phase cancellation through line length).

The boxes for sale you describe are simply virtual lines that can be changed electrically instead of physically. This allows you to combine any two antennas with any line lengths and eventually cobble together enough delay to accomplish the job.

So, delay can be obtained through physical separation of antennas, AND/OR varying the length of their lines, AND/OR inserting variable tuning components before the combination point.

If you invest in more actual antennas you also boost your flexibility (and complexity) and deepen the null, or enhance the gain. If you get particularly good at this through the use of electronic tuning of the delay, you can then construct a "steerable beam" antenna.

Hence my oblique comment on garnering several many of these antennas (far cheaper to build them from brazing rod and SO-238 chassis connectors).

73's
Richard Clark, KB7QHC

2615. Re: So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 22:50:59 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0ot3g$19le60$1@ID-150848.news.uni-berlin.de>
Source record: 99937

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:cirv20pmff32m5f5tqlbi0vnv8r1ffan69@4ax.com...
> On Sun, 15 Feb 2004 21:49:12 -0000, "Richard"
> <nearlynews_email@ntlworld.com> wrote:
>
> >> Consider, if you could accumulate half a dozen of these you could then
> >> build your own phased array to take care of your interference (some).
> > >
> > >Yea! :c)
> > >
> > >No, what I decided was that I needed to use phase nullinhg/cancelation, I
> > >mean adjusting the phase and amplitude of the undesired local signal (got
> > >from a dipole or omnidirectional antenna) and combining it with the
> > >intefering signal from a directional beam. Which is a different tack than
> > >nulling out using nulls in antenna lobe patterns.
> > >
> > >I could so with an FM omnidirectional antenna, but the one that is on
ebay,
> > >I don't think it is an FM antenna, despite the description. Looks
possibly
> > >a scanner type. But, I don't know.
> > >
> > >Rich.
>
> Hi Richard,
>
> My suggestion is the classic approach and more aggressive than the one
> you describe (which uses the same logic).
>
> Basically you set up the several many different antennas and combine
> them at one point. Difference is, that before you combine them, you
> introduce a delay in each. The delay selected then combines with the
> others to perform the cancellation (or addition, depends wholly on the
> delays involved).
>
> In some, fixed designs, it is simply a matter of where the many
> antennas are located (their physical distance imparts some portion of
> delay) and the length of their transmission lines to the combining
> point.
>
> Delay is simply a matter of wavelength. For the FM band we are
> talking about 3M representing a total of 360 degrees of delay. If two
> antennas are separated by 1.5M and combined, they add with 180 degrees
> of difference iff their transmission lines are the same length. They

> would cancel. If two antennas are separated by 3M and combined, they
> add with 360 degrees of delay and add (again, iff their lines are
> equal length).
>
> Now, if we took two antennas separated by 3M and combined them through
> lines that themselves show 180 degrees different length, then their
> combined signals would cancel. So, through the manipulation of line
> length with fixed antennas, you can either add or negate signals by
> choice (phase cancellation through line length).
>
> The boxes for sale you describe are simply virtual lines that can be
> changed electrically instead of physically. This allows you to
> combine any two antennas with any line lengths and eventually cobble
> together enough delay to accomplish the job.
>
> So, delay can be obtained through physical separation of antennas,
> AND/OR varying the length of their lines, AND/OR inserting variable
> tuning components before the combination point.
>
> If you invest in more actual antennas you also boost your flexibility
> (and complexity) and deepen the null, or enhance the gain. If you get
> particularly good at this through the use of electronic tuning of the
> delay, you can then construct a "steerable beam" antenna.
>
> Hence my oblique comment on garnering several many of these antennas
> (far cheaper to build them from brazing rod and SO-238 chassis
> connectors).

Understood.

What do you think about the antenna on ebay? I've not yet had anyone say what they think it is, which I'm finding curious. The seller does not know what it is depite the description, because I've talked to him. He just put it down as an FM antenna, but I have my doubts. But if it is not, maybe I could modify. What does it look like to you, a scanner antenna, a CB antennna, a marine antenna, a 2 meter antenna? Model is CA-815, but you will not find a match on Google. Rich.

2616. Re: Any comments on LDG Z-100?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 22:54:26 UTC
From: Bill on the hill <wjo13@yahoo.com>
Message-ID: <CMSXb.14799$q%6.5485544@newsfep2-win.server.ntli.net>
Source record: 99938

Use mine with an IC718.
Have the cables to control it from the rig, works like an Icom tuner but I
get to keep more cash in the bank!
Delighted with it!

73 de Bill

"Ken Bessler" <kg0wxIHATESPAM@yahoo.com> wrote in message
news:c0mjvk$193lop$1@ID-213023.news.uni-berlin.de...
>
> "Dave K6DLW" <k6dlw@skyhighway.com> wrote in message
> news:c0mhbh01squ@enews2.newsguy.com...
> > I am looking at one of these for use with my mobile station. It is a
> Kenwood
> > TS50S and Hamstick. Anyone using one? How is it working? Thanks.
> >
> > Dave K6DLW
> >
> >
>
> I use mine with a FT-817/K5OOR amp/Van Gorden all bander
> dipole. Works great!
>
> You'd have to put a gun to my head to get my Z100......
>
> Ken KG0WX
>
>

2617. Re: So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 23:06:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qutv2011d5eoj9po8tb24tgfkr8ts3rdgc@4ax.com>
Source record: 99939

On Sun, 15 Feb 2004 22:50:59 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:

>Understood.

Kewel.

>
>What do you think about the antenna on ebay? I've not yet had anyone say
>what they think it is, which I'm finding curious. The seller does not know
>what it is depite the description, because I've talked to him. He just put
>it down as an FM antenna, but I have my doubts. But if it is not, maybe I
>could modify. What does it look like to you, a scanner antenna, a CB
>antennna, a marine antenna, a 2 meter antenna? Model is CA-815, but you will
>not find a match on Google. Rich.
>

FM can mean Marine or 440 or 2M FM as easily as broadcast FM. Either
way, having an exact size antenna for receive is not particularly
essential. It is more meaningful for those of us who transmit, but
that is not your concern.

At this scale, there are far more, cheaper alternatives available to
constructing in an hour or two (such as my suggestion of rods and
connector). Having one antenna is not very useful to your problem of
interference and the greater complexity is actually in the method of
combination. Here too you can roll-your-own equipment, but this will
enlarge the project.

73's
Richard Clark, KB7QHC

2618. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 23:13:32 UTC
From: jgboyles@aol.com
Message-ID: <20040215181332.19430.00000331@mb-m28.aol.com>
Source record: 99940

>I am looking for some suggestions on putting up a 30-40 foot mast or push up
>pole...

Radio Shack used to sell all the stuff you would need. I would check with them
first.
Home Depot and Lowes also sell home TV antenna equipment that should get you
fixed up. I have done what you are contemplating many times.
73 Gary N4AST

2619. Re: Bandwith of antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 23:27:26 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402151527.6fa4f8b3@posting.google.com>
Source record: 99941

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:<c0kvhg$16lqoi$1@ID-150848.news.uni-berlin.de>...
> Hi. Is there a standard way to measure antenna bandwith? Is it within 3dB
> down of maximum gain, or is it between SWR limits?
>
> I'm looking at an FM receiving yagi that is advertised as covering the
> frequency range 87.5 - 108 Mhz. And I'm wondering what this means. Is the
> received signal going to be 3dB down at the band edges or what?
>
> I notice that there are commecial yagis (that are probably suitable for
> transmission) that have 150-174 Mhz in their description. Yet they are
> stated as having a bandwidth of say 1.3 Mhz. What's the deal here?

What it means is that they have an antenna that will provide all the
signals
on a 1.3 Mhz frequency spread at the same time. It is incumbent on the
user to provide equipment that discriminates against unwanted signals
that the antenna supplies thru out the 1.3 Mhz frequency span even tho
it is resonant on only one frequency.
This makes it a very low 'Q' antenna where a very high 'Q' is desired
for a particular mode of communication is used such as audio.
Idealy one wants an antenna that is resonant on any frequency of
choice and where the band pass is tailored around audio carrier if
audio is the mode of communication. The latter is the antenna I use.

Cheers
Art

2620. Re: So, you think you know all about antennas!! Okay, what is this?...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 23:38:42 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0ovsj$18p79f$1@ID-150848.news.uni-berlin.de>
Source record: 99942

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c0o3ik$190bks$1@ID-150848.news.uni-berlin.de...
> ...point you web browser to:
>
> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3077597082
>
> It's model CA-815.

Well, I'm off to bed.

I'm hoping that when I awake in 7 or 8 hours time someone will have posted
their opinion on what band(s) the antenna might reasonably cover. The seller
does not really know if it's an FM (87.5 - 108Mhz) antenna.

See ya!!

I'm going to the land of nod.

Rich G8VOQ

2621. Re: Wierd RFI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-15 23:53:12 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <if-dnR9yjLP2m63dRVn-ig@comcast.com>
Source record: 99943

On 14-Feb-2004, "Pete Holden" <peter.holden@comcast.net> wrote:

> > I had a similar problem. It turned out to be the "ice-cube-tray-dumping"
> > motor in the ice maker in my freezer. I didn't find it until long after I
> > had had the power company come out and inspect their HV line, up about 40'
> > and their transformers. Naturally they didn't have any problems.
> > 73 DE N6UF, Jim
> >
>
> Oh brother! That makes me wonder about all the nearly "untold" devices and
> gizmos I have around the house.
>
> Thanks again, folks... I'm still looking -- or will be when it shows up
> again.
>
> Pete

I once had a flourescent light fixture in my garage which would intermittently generate an arc-like
noise in my AM radio. Sometimes the noise would start when the light was first turned on. Sometimes it would appear after several hours. Changes of lamp tubes, ballasts, and grounding were
all to no effect. Several years later while I was changing the power cord in the light, I noticed a
small brown spot on a wire nut which was laying on the metal fixture. There was very little visible
damage to the plastic of the wire nut but after replacing it, the noise was gone. Apparently some
carbonization of the plastic was allowing an arc-through to ground, a case where lack of a ground on
the fixture might have eliminated the noise.

-ken-

2622. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 00:49:27 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402151649.467e13aa@posting.google.com>
Source record: 99944

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<402fbca5_7@corp.newsgroups.com>...
> Gary Boyer wrote:
> > I am looking for some suggestions on putting up a 30-40 foot mast or push up
> > pole...it does not have to be the fiberglass poles that you see
> > advertised...the mast would be used for an inverted vee 80 meter antenna
> > only...also, how do you bracket to the house or how would you attach it to
> > something similar...thanks...Gary...K8BY
>
> Guyed Vs self-supporting makes a huge difference. A TV mast comes
> in ten foot sections and will work for the above if guyed. TV
> telescoping poles are available at Home Depot, Lowe's, Radio Shack,
> et al. My favorite is 20 ft of fiberglas pole mounted on top of
> 20 ft of 2x4s.

Re fibre glass pole. How is it made? Solid or hollow?
Is it a vaulting sports pole that is modified? Fishing pole?
Can you supply any details?
Art

2623. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 01:01:30 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402151701.3612b5b5@posting.google.com>
Source record: 99945

k3bu@aol.comNoUsama (Yuri Blanarovich) wrote in message
news:<20040215104220.17312.00000280@mb-m13.aol.com>...
> >
> >If you want maximum gain on one frequency, or sub-band, then I agree
> >that a Long John tuned to your favorite frequency is the way to go. But,
> >if you want good to very good performance across the whole HF spectrum
> >from 13.5 to 33 MHz, or higher, in ONE antenna then the ONLY choice,
> >IMO, is a LPDA.
> >
> >There is a solid reason why the governments of the world use LPDAs for
> >State Department, FAA and Defense HF communications.
> >
> >
>
>
> Aaaah, not so fast.
> Have you checked StepIR tunable antennas with monobander performance on any
> frequency within that band? Plus instant pattern flip and much less cumbersome
> than LP. Read comments from users. This antenna is making LPs obsolete (unless
> you need spread spectrum instant coverage)
>
> Yuri, K3BU.

Yuri,
I find your comment very interesting. I was totally unaware that the
IR
antenna had laterally moveable elements so it can compete with
monobanders.
Can you point me to a URL that shows how the elements are moved along
the boom?
I suspect that such a design would provide spread spectrum coverage
since it would be resonant on all frequencies.

Regards
Art

2624. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 01:14:49 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040215201449.25730.00001009@mb-m04.aol.com>
Source record: 99946

Their web page is at
http://www.steppir.com/
they have range of beams and verticals that are tunable accross the range. On beams they do not change element spacing, but there is enough range to maintaing good pattern and gain. Many users love them, they are weather resistant. The idea is that they use metallic tape inside of fiberglass tubing and motion is done by stepping motors, which are very reliable.

They are tunable to particular frequencies, so they are not "broadband" like LP arrays, but they beat LP in performance on any frequency withing the range.

73 Yuri

> I find your comment very interesting. I was totally unaware that the
>IR
>antenna had laterally moveable elements so it can compete with
>monobanders.
>Can you point me to a URL that shows how the elements are moved along
>the boom?
>I suspect that such a design would provide spread spectrum coverage
>since it would be resonant on all frequencies.
>
>Regards
>Art

2625. FS: Nye Viking MBVA antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 01:34:00 UTC
From: k9sqg@aol.com
Message-ID: <20040215203400.21805.00001672@mb-m25.aol.com>
Source record: 99947

Have a Nye Viking MBVA tuner for sale. Some of the lettering on the front panel is "weak", but other than that, it is in excellent condition inside and out. No arcs, burns, worn spots on the inductor, etc. Auto SWR meter works fine and wattmeter tracks with my Autek WM-1 and also auto switches between 300 watt and 3 kw ranges. Have a good photocopy of the manual. Unfortunately, I don't have digital pictures.

Thanks for reading the posting.

73s,

Evan

2626. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 02:06:04 UTC
From: "Z.Z." <nobody@nowhere.com>
Message-ID: <Xns9490C24F3C7A4nobodynowhere@68.6.19.6>
Source record: 99948

Art Unwin KB9MZ wrote:

> Cecil Moore wrote:
>> ... My favorite is 20 ft of fiberglas pole mounted on top of
>> 20 ft of 2x4s.
>
> Re fibre glass pole. How is it made? Solid or hollow?
> Is it a vaulting sports pole that is modified? Fishing pole?
> Can you supply any details?
>

I'd be interested in the 20 ft of 2x4. What's the best way to do
that?

73... MArk AA7TA

2627. Re: FS: Nye Viking MBVA antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 02:14:53 UTC
From: k9sqg@aol.com
Message-ID: <20040215211453.21903.00001579@mb-m25.aol.com>
Source record: 99949

PS Price is $500 shipped, continental US only.

2628. Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 03:03:50 UTC
From: Drink <drink@gnt.net>
Message-ID: <c0pbu1$o4j$1@news.utelfla.com>
Source record: 99950

I've been studying for my Extra Class for a pretty long time now (Sheesh!
A couple YEARS) and understand that the question pool has changed. No, I'm
not interested in a question pool/cheat sheet. I want to make sure I
understand all the subject matter and pass the test. I have the "ARRL Extra
Class License Manual" published in 2000 and want to continue studying with
it. Here's my question.
Since the question pool has changed, has the material changed? Should I
go buy the 8th printing to make sure I have a manual that focuses on newer
requirements?
o_o_o_o
Best Regards, /| ,[_____],
Jim, WP3JQ |���L --O|||||||O-
()_)�()_) ������)_)
EM60qk 30.447439N 086.628959W

2629. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 03:40:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2me0305u8a3svas5d9dkolson1fq2kd29v@4ax.com>
Source record: 99951

On Sun, 15 Feb 2004 21:03:50 -0600, "Drink" <drink@gnt.net> wrote:

> I've been studying for my Extra Class for a pretty long time now (Sheesh!
>A couple YEARS)
...
> Should I
>go buy the 8th printing to make sure I have a manual that focuses on newer
>requirements?

Hi OM,

Relieve the stress and just take the test. You don't need a perfect
score to pass.

If you don't pass, take it again.

73's
Richard Clark, KB7QHC

2630. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 04:04:53 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <1030g7v4r7jjgc0@corp.supernews.com>
Source record: 99953

I can almost echo that experience. Some years ago, while working on an automated frequency usage project, I noticed a fast drifting signal. It would key up several repeaters as it drifted through their input frequencies (in those days of too little use of "PL"). It also caused havoc with the automated system as it made it appear that frequencies were being used that were not being used.
I tracked it down to a dispatch transmitter used by a newspaper in the 170 MHz range. The Motorola people would fix the radio only to have it start up some time latter. Finally had a scheme where I would call the radio shop technicians, many of whom were radio amateurs, and say "guess who is back?"
Because the transmitter's frequency was above most of the Federal frequencies, guess who it mostly interfered with.
A study a few years latter in a metropolitan area suggested that oscillating (at an HF rate) of VHF transmitters was much too common. Since the signals were always drifting, they just presented temporary interference to any one user who was inclined to pass it off as just-one-of-those-things.
Be vigilant. The oscillating transmitters are out there. 73 Mac N8TT

--
J. Mc Laughlin - Michigan USA

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message news:402efd09_2@news1.prserv.net...
> Steve:
>
> Sorry to speak of your employer like this, but this is unfortunately a true
> story. I can provide names, dates and times. Doesn't have to be on a
> nearby frequency. When Micor series radios were first delivered, Motorola
> told shops not to tune the finals of the base transmitters after
> installation (!!!!). There was a brand new Micor high band pager here which
> had a spur on 440 when cold, but not later in the day (sound familiar yet?).
> Drifted through the 440 machine(s) input(s) all morning, buzzing away, with
> also some commercial FM broadcast content also. Two spectrum analyzers and
> 3 months were necessary to nail the problem, and a quiet promise to make
> their 400 foot tower about 398 feet shorter one night got them to tune

the
> $&*%* thing and fix the problem. They quoted the Motorola directive
to me
> when I first contacted them. However, given my reputation, they
believed
> the promise and went against Motorola's advice.
>
> --
> Crazy George
> Remove N O and S P A M imbedded in return address

2631. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 04:29:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40304811_5@corp.newsgroups.com>
Source record: 99954

Art Unwin KB9MZ wrote:
> Re fibre glass pole. How is it made? Solid or hollow?

They have both solid and hollow, round and square.

> Can you supply any details?

Here's where I get mine in Houston. The one I like comes in
40 foot lengths.

http://www.ryanherco.com/auto/GRPindex.cfm?FAM=775&SEC=860&GRP=120
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2632. Re: microstrip antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 04:35:06 UTC
From: spam@spam.com
Message-ID: <40304754.14190937@news.east.cox.net>
Source record: 99955

Most people use an electrically-short loop antenna that is resonated to operate at 400 MHz. There are a number of application notes on the web for RKE (remote keyless entry) devices that have antenna design equations. Look at companies like Linx Technologies, Maxim, Micrel, Xemics, Melexis, Chipcon, etc. that make devices operating in this frequency range.

Mark

--
On 15 Feb 2004 10:08:23 -0800, ultanir_99@yahoo.com (erdem) wrote:

>I am looking for microstrip antennas that work around 400Mhz, and can
>fit into a key chain. What I heard is; car starters, lockers all have
>these kind of antennas, but I cannot find any place who sells these
>things. Could you guys help?
>
>Thanks,
>Adam

Mark

2633. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 04:54:16 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <-cSdnWlv39KBoq3dRVn-jw@ctc.net>
Source record: 99952

"Drink" <drink@gnt.net> wrote in message
news:c0pbu1$o4j$1@news.utelfla.com...
> I've been studying for my Extra Class for a pretty long time now
(Sheesh!
> A couple YEARS) and understand that the question pool has changed. No,
I'm
> not interested in a question pool/cheat sheet. I want to make sure I
> understand all the subject matter and pass the test. I have the "ARRL
Extra
> Class License Manual" published in 2000 and want to continue studying with
> it. Here's my question.
> Since the question pool has changed, has the material changed? Should I
> go buy the 8th printing to make sure I have a manual that focuses on newer
> requirements?

Forget about learning anything from the question pool book. Just get the new Q/A book and memorize the thing. If you want to learn things, got a ARRL Handbook. I took the old advanced test and only read the answers once. Took the old Extra test and never did read the Q/A book. I did have an advantage of having a good electronics background andwas a ham for about 25 years before. Electronics don't change but the rules and frequencies do change.

I have had to take many tests where I work for various things. One was on refrigeration systems as required by the government. The company had about 20 of us in a cram session for a day and the next day we took the test. The instructor made one statement the stuck with me. He said "that many of us may know more about refrigeration than I do but we are going to learn the answers the government wants". I know almost nothing about refrigeration, but I did learn the rules for releasing freon in the atmosphere.

2634. Re: Any comments on LDG Z-100?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 08:53:01 UTC
From: Lloyd Mitchell <lloydm75@hotmail.com>
Message-ID: <VC%Xb.3115$fE4.160@bignews5.bellsouth.net>
Source record: 99956

An email from Dwayne to me last night sez that a new tuner is on the market
by the end of February 04. It will be named z-100 pro... he wont give me
any details except to watch the website for details.

It should be another good prodct from LDG.

Mitch KD4HTW

"Bill on the hill" <wjo13@yahoo.com> wrote in message
news:CMSXb.14799$q%6.5485544@newsfep2-win.server.ntli.net...
> Use mine with an IC718.
> Have the cables to control it from the rig, works like an Icom tuner but I
> get to keep more cash in the bank!
> Delighted with it!
>
> 73 de Bill
>
>
> "Ken Bessler" <kg0wxIHATESPAM@yahoo.com> wrote in message
> news:c0mjvk$193lop$1@ID-213023.news.uni-berlin.de...
> >
> > "Dave K6DLW" <k6dlw@skyhighway.com> wrote in message
> > news:c0mhbh01squ@enews2.newsguy.com...
> > > I am looking at one of these for use with my mobile station. It is a
> > Kenwood
> > > TS50S and Hamstick. Anyone using one? How is it working? Thanks.
> > >
> > > Dave K6DLW
> > >
> > >
> >
> > I use mine with a FT-817/K5OOR amp/Van Gorden all bander
> > dipole. Works great!
> >
> > You'd have to put a gun to my head to get my Z100......
> >
> > Ken KG0WX
> >
> >
>
>

2635. Re: Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 09:37:58 UTC
From: Whoopydoo <vk3kcg@guess>
Message-ID: <40308f71$0$28867$afc38c87@news.optusnet.com.au>
Source record: 99957

http://dxantennas.com

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c0ooe1$19p4hp$1@ID-150848.news.uni-berlin.de...
>
> "JEFF UK" <Birdnbloke@btopenworld.com> wrote in message
> news:c0ocs3$1qo$1@titan.btinternet.com...
> > Hi.
> > Would some please explain to me the different types of SWL Baluns and
> > what type should be used for which antenna.?
> > I use a long wire at the moment. What is best for this.?
> > 1:1, 1:4, 1:9 ??? Not sure what all this means.
> > Is there a site where i can see different homebrew projects for each of
> > these ?
> > All help welcome
> > Regards
> > Jeff
> >
> Sorry, I just copied all my links:
>
> http://anarc.org/naswa/badx/antennas/
> http://users.netonecom.net/~swordman/Radio/unun.htm
> http://www.bytemark.com/index.htm
> http://www.google.com/
> http://members.aol.com/DXerCapeCod/z_transformers.pdf
> http://www.palacenet.net/home/mules/antenna.html
> http://www.anarc.org/naswa/badx/antennas/low-noise_antenna.html
> http://www.hard-core-dx.com/nordicdx/antenna/feed/magbal3.html
> http://www.hard-core-dx.com/nordicdx/antenna/feed/magbalun.html
> http://www.albany.net/~bg/topband/BeverageXfmrs.htm
> http://www.antennex.com/palomar/page_6.htm
> http://www.universal-radio.com/catalog/sw_ant/1465.html
> http://www.anarc.org/naswa/issues/0398/tech0398.html
> http://users.erols.com/r.smith/feed1.html
> http://www.wellbrook.uk.com/UMB.html
> http://www.wellbrook.uk.com/longwire.html
> http://www.cwsbytemark.com/prices/ununs.php
> http://www.alphalink.com.au/~parkerp/nojun98.htm
> http://www.iserv.net/~n8kdv/xfmr.htm
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).

Version: 6.0.588 / Virus Database: 372 - Release Date: 13/02/2004

2636. Re: capacitor su PCB FR-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 11:04:46 UTC
From: Massi <msignorini@calearotlc.com>
Message-ID: <c0q7lp$j31$1@fata.cs.interbusiness.it>
Source record: 99958

"Tom Bruhns" <k7itm@aol.com> ha scritto nel messaggio
news:3200347.0402121050.6ba6bdfb@posting.google.com...
> I know there are some pretty good PCB-capacitor aplets on the web.
> Try a Google or similar search for them.
>
> "RFSim99" is free for the downloading and has lots of tools, including
> a component calculator that covers, among other components,
> capacitors. It lets you just select FR4 dielectric (or any of several
> others, or your specific relative dielectric constant), thickness, and
> plate area, and will tell you the capacitance. Beware of fringing
> effects, though, if your capacitor plate dimensions are not large
> compared with the board thickness. RFSim99 doesn't do anything to
> account for fringing as far as I can see. The capacitance is mainly
> dependent on the plate area, but beware also of making one that is
> long and narrow, because it will act like a transmission line. Also,
> a problem with FR4 is that the dielectric constant is not well
> controlled, so the capacitance may not be very consistent from
> manufacturer to manufacturer.

Fantastic, bellissimo, thankx
Massimo

2637. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 14:26:32 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4030d5ad_1@news1.prserv.net>
Source record: 99959

Mac:

I'm sad to hear that others had to go through the same experience, IIRC, back in the early 70s. Few labs had spectrum analyzers, and almost no hams had them, and it was very difficult to find these drifting signals otherwise. I studied enough of the spectrum to get the idea that the type acceptance of certain designs should never have been issued. Hopefully all those transmitters are now defunct.

About the user reactions. Only hams, it seemed, were concerned with actually finding and getting those problems fixed. As you observe, commercial users just passed it off, and let the dispatchers suffer. More ham repeaters were 'open' than commercial, but the interference was there, nevertheless. The commercial shops found the hams a convenient whipping boy, blaming them for the various problems. Here, the records I kept indicated about a 50 to 1 ratio of commercial caused problems to ham caused problems.

--
Crazy George
Remove N O and S P A M imbedded in return address

"J. McLaughlin" <JCM@Power-Net.Net> wrote in message
news:1030g7v4r7jjgc0@corp.supernews.com...
> I can almost echo that experience. Some years ago, while working on an
> automated frequency usage project, I noticed a fast drifting signal. It
> would key up several repeaters as it drifted through their input
> frequencies (in those days of too little use of "PL"). It also caused
> havoc with the automated system as it made it appear that frequencies
> were being used that were not being used.
> I tracked it down to a dispatch transmitter used by a newspaper in
> the 170 MHz range. The Motorola people would fix the radio only to have
> it start up some time latter. Finally had a scheme where I would call
> the radio shop technicians, many of whom were radio amateurs, and say
> "guess who is back?"
> Because the transmitter's frequency was above most of the Federal
> frequencies, guess who it mostly interfered with.
> A study a few years latter in a metropolitan area suggested that
> oscillating (at an HF rate) of VHF transmitters was much too common.
> Since the signals were always drifting, they just presented temporary
> interference to any one user who was inclined to pass it off as
> just-one-of-those-things.
> Be vigilant. The oscillating transmitters are out there. 73 Mac
> N8TT
>

> --
> J. Mc Laughlin - Michigan USA
>
> "Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
> news:402efd09_2@news1.prserv.net...
> > Steve:
> >
> > Sorry to speak of your employer like this, but this is unfortunately a
> true
> > story. I can provide names, dates and times. Doesn't have to be on a
> > nearby frequency. When Micor series radios were first delivered,
> Motorola
> > told shops not to tune the finals of the base transmitters after
> > installation (!!!!). There was a brand new Micor high band pager here
> which
> > had a spur on 440 when cold, but not later in the day (sound familiar
> yet?).
> > Drifted through the 440 machine(s) input(s) all morning, buzzing away,
> with
> > also some commercial FM broadcast content also. Two spectrum
> analyzers and
> > 3 months were necessary to nail the problem, and a quiet promise to
> make
> > their 400 foot tower about 398 feet shorter one night got them to tune
> the
> > $&*%* thing and fix the problem. They quoted the Motorola directive
> to me
> > when I first contacted them. However, given my reputation, they
> believed
> > the promise and went against Motorola's advice.
> >
> > --
> > Crazy George
> > Remove N O and S P A M imbedded in return address
>
>

2638. Special @rohntowers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 15:15:45 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <hdn130hipqdf1cv7guc3ntjbqdgmrs3j4t@4ax.com>
Source record: 99960

Get to the top of your tower in a hurry.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3078059896&category=4672

2639. Re: Special @rohntowers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 15:32:46 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <Zn5Yb.30290$gl2.3546@lakeread05>
Source record: 99961

"Wes Stewart" <n7ws@_arrl.net> wrote in message
news:hdn130hipqdf1cv7guc3ntjbqdgmrs3j4t@4ax.com...
> Get to the top of your tower in a hurry.
>
>
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3078059896&category=4672

For my tower, you'd stand it on end and use if for a ladder.

2640. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 16:04:20 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <402f92f2_6@newsfeed.slurp.net>
Source record: 99962

Can you at least bend something over? Comet makes a series of VHF/UHF antennas with a breakover joint at the base.

Your other choice is to mount the antenna on a bumper, and live with reduced performance...

- Mike KI6PR
El Rancho R.F., CA

"Bruce D. Meyer" wrote
> I park in a parking garage at work, so my 2 meter anetnnae won't fit on the
> car (P.T. Cruiser) while in the garage. Removing it, just before entering
> the garage is not an option. Does anyone have a recomendation on an
> alternate 2 meter antennae?
>
> Bruce Meyer
> www.kg4tac.net
>
>

2641. Re: diople help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 16:11:02 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <402f9488_6@newsfeed.slurp.net>
Source record: 99963

Steve, how low on space are you? There are a lot of us out here with our pet wire antennas, but we can't recommend them unless we know how much room you've got.

How about this one? Stick a pole up in the center of your roof, as high as it will stand without guys (probably 10 ft). From there, run two wires down to either end of the house, then, from the edges of the roof, run the wires to the far back corners of your yard, then along the fence-top, until the ends of the wires are about to meet. Feed it with twin lead and a tuner. It's not a monster, but it will get you on the air, and will work DX, if you know what you're doing...

- Mike KI6PR
El Rancho R.F., Ca

"Steve Trook" wrote
> Soon to be new to HF. I need help in choosing a dipole. I want to work
> 10-80 meters but low on space.....any ideas? help??
>
>

2642. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 16:18:01 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <402f9624_5@newsfeed.slurp.net>
Source record: 99964

Gary, you've got a lot of choices. Radio Shack, or your local TV shop, or even Home Depot can sell you steel masts, and guy wires, as well as house brackets. I don't recommend this, though, if you're wanting to do an inverted vee (why would anyone want one of those, anyway?). But if you insist on a vee, then you should probably consider either a Rohn 25/45 tower, or look at ABS/PVC 3" pipes - you can get them in 20' sections, they're easy to join together, and they can be guyed with nylon/dacron line.

- Mike KI6PR
El Rancho R.F. CA

"Gary Boyer" wrote
> I am looking for some suggestions on putting up a 30-40 foot mast or push up
> pole...it does not have to be the fiberglass poles that you see
> advertised...the mast would be used for an inverted vee 80 meter antenna
> only...also, how do you bracket to the house or how would you attach it to
> something similar...thanks...Gary...K8BY
>
>

2643. Re: Can anyone recommend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 16:57:26 UTC
From: bunnydawg <r.heenan@sympatico.ca>
Message-ID: <nG6Yb.2890$d34.423151@news20.bellglobal.com>
Source record: 99965

Still remember the sound of of breaking flourscent lights the first time i parked in an underground parking lot.
My learning curve improved after that lol.
Robert
"Mikey" <ki6pr@arrl.net> wrote in message news:402f92f2_6@newsfeed.slurp.net...
> Can you at least bend something over? Comet makes a series of VHF/UHF
> antennas with a breakover joint at the base.
>
> Your other choice is to mount the antenna on a bumper, and live with reduced
> performance...
>
> - Mike KI6PR
> El Rancho R.F., CA
>
> "Bruce D. Meyer" wrote
> > I park in a parking garage at work, so my 2 meter anetnnae won't fit on
> the
> > car (P.T. Cruiser) while in the garage. Removing it, just before entering
> > the garage is not an option. Does anyone have a recomendation on an
> > alternate 2 meter antennae?
> >
> > Bruce Meyer
> > www.kg4tac.net
> >
> >
>
>

2644. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 17:29:40 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c0quphram1@newshost.mot.com>
Source record: 99966

"Ed Price" <edprice@cox.net> wrote in message
news:jaoXb.72863$fD.59039@fed1read02...
> THAT
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:c0ji6c$ee7$1@newshost.mot.com...
> > Diathermy was mentioned in the longwire exposure thread and made me
think
> of
> > this long standing problem here in northern IL..
> >
> > For some years now, there has been interference on the local 2M repeater
> > (145.41) which sounds just like the diathermy I used to hear on 10M long
> > ago. [snip]
> > Steve N, K,9;d, c. i My email has no u's.

> [snip] If the RF source is quite close to the repeater, maybe you are
> seeing an image response to the 5th harmonic.
> wb6wsn

Not an image. Spec analizer and many other receivers hear it, as well
as other repeaters.

Steve

2645. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 18:22:39 UTC
From: Mike Coslo <mjc5@psu.edu>
Message-ID: <40310A6F.5070407@psu.edu>
Source record: 99968

Drink wrote:
> I've been studying for my Extra Class for a pretty long time now (Sheesh!
> A couple YEARS) and understand that the question pool has changed. No, I'm
> not interested in a question pool/cheat sheet. I want to make sure I
> understand all the subject matter and pass the test. I have the "ARRL Extra
> Class License Manual" published in 2000 and want to continue studying with
> it. Here's my question.
> Since the question pool has changed, has the material changed? Should I
> go buy the 8th printing to make sure I have a manual that focuses on newer
> requirements?
>
You can download the question pool from ARRL:

http://www.arrl.org/arrlvec/2002_Extra_Pool3_.pdf

ot text:

http://www.arrl.org/arrlvec/2002_Extra_Pool3_.txt

You can also take one of the online tests at a place like qrz.com

Nothing wrong with using the question pool. If you can read a study
guide book where the answers are, it's just about the same thing. Go for
it, Drink!

p.s. unless you are into the idea of memorizing 800 some questions,
you're better off to take the online tests, then study up on the
questions you missed.

- mike KB3EIA -

2646. FS: AEA IsoLoop 10-30 MHz antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 18:22:53 UTC
From: jonweiner@aol.com
Message-ID: <20040216132253.24678.00002016@mb-m16.aol.com>
Source record: 99967

Excellent condition AEA model 10-30 IsoLoop antenna. Lightly used INDOORS only. Includes 50 foot control cable and model LC-2 controller. Very easy to use. Handles up to 150 watts. Perfect for indoor or antenna restricted use. Only 43" in diameter. Covers 10 to 30 MHz. Less than 1.5:1 SWR at resonance. Price:$250.

2647. Re: Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 19:42:25 UTC
From: JEFF UK <Birdnbloke@btopenworld.com>
Message-ID: <c0r6f0aao1@hercules.btinternet.com>
Source record: 99819

Cheers guys
Jeff

"Whoopydoo" <vk3kcg@guess the rest.con> wrote in message
news:40308f71$0$28867$afc38c87@news.optusnet.com.au...
> http://dxantennas.com
>
>
> "Richard" <nearlynews_email@ntlworld.com> wrote in message
> news:c0ooe1$19p4hp$1@ID-150848.news.uni-berlin.de...
> >
> > "JEFF UK" <Birdnbloke@btopenworld.com> wrote in message
> > news:c0ocs3$1qo$1@titan.btinternet.com...
> > > Hi.
> > > Would some please explain to me the different types of SWL Baluns and
> > > what type should be used for which antenna.?
> > > I use a long wire at the moment. What is best for this.?
> > > 1:1, 1:4, 1:9 ??? Not sure what all this means.
> > > Is there a site where i can see different homebrew projects for each
of
> > > these ?
> > > All help welcome
> > > Regards
> > > Jeff
> > >
> > Sorry, I just copied all my links:
> >
> > http://anarc.org/naswa/badx/antennas/
> > http://users.netonecom.net/~swordman/Radio/unun.htm
> > http://www.bytemark.com/index.htm
> > http://www.google.com/
> > http://members.aol.com/DXerCapeCod/z_transformers.pdf
> > http://www.palacenet.net/home/mules/antenna.html
> > http://www.anarc.org/naswa/badx/antennas/low-noise_antenna.html
> > http://www.hard-core-dx.com/nordicdx/antenna/feed/magbal3.html
> > http://www.hard-core-dx.com/nordicdx/antenna/feed/magbalun.html
> > http://www.albany.net/~bg/topband/BeverageXfmrs.htm
> > http://www.antennex.com/palomar/page_6.htm
> > http://www.universal-radio.com/catalog/sw_ant/1465.html
> > http://www.anarc.org/naswa/issues/0398/tech0398.html
> > http://users.erols.com/r.smith/feed1.html
> > http://www.wellbrook.uk.com/UMB.html
> > http://www.wellbrook.uk.com/longwire.html
> > http://www.cwsbytemark.com/prices/ununs.php

> > http://www.alphalink.com.au/~parkerp/nojun98.htm
> > http://www.iserv.net/~n8kdv/xfmr.htm
> >
> >
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.588 / Virus Database: 372 - Release Date: 13/02/2004
>
>

2648. CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 20:08:53 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <9g823099nvgm978hos4naa5o21aduguegs@4ax.com>
Source record: 99820

I have an old mag mount RS CB antenna with a 24" (approx.) telescopic whip. It is fitted with an integral audio cable (as the feedline) terminating in (what else?) a male RCA jack that plugs into the CB's antenna jack. The CB is rated at 5 watts FM.

The whip can be shortened quite a bit. Is there any reason it wouldn't resonate on 10M?

Audio cable ain't RG-8/U, but is it enough to handle 30 watts FM on 10M?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

2649. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 20:33:35 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40312a06_4@corp.newsgroups.com>
Source record: 99821

Jim Kelley wrote:
> There is no convention describing
> unidirectional flow of alternating current. That is what you've been
> trying to say, i.e. current into one end of a coil.

When the instantaneous voltage across a resistor is '+' on one end
and '-' on the other, instantaneous current is flowing into the '+'
end and out the '-' end, by convention. What do you mean there is no
convention describing instantaneous current flow for AC? How could
we possibly be in the 21st Century without such a convention?

From _University_Physics_ by Young and Freedman, 9th edition:

"i = I cos(wt) where 'i' is the instantaneous current ..."

"But if we pass a sinusoidal current through a d'Arsonval
meter, the torque on the moving coil varies sinusoidally, WITH
ONE DIRECTION HALF THE TIME AND THE *OPPOSITE* DIRECTION THE
OTHER HALF." (emphasis mine so you won't miss it)

Instantaneous AC current "is represented by the projection (of a
phasor) onto a horizontal axis ...". A '+' sign for the cos(wt)
term represents one direction and a '-' sign represents the
opposite direction.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2650. Re: Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 21:02:58 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <1032c03700q8b9a@corp.supernews.com>
Source record: 99822

Hi Jeff, the short, simple answer , for a long wire antenna, is: you would use an antenna tunner, NOT A BALUN !
A BALUN converts from an unbalanced source (or load) -- read that : COAX, to a BALANCED load
(or source) Like TWIN-LEAD, or LADDER LINE! The 1:1, 1:4, and 1:9 is the impedence ratio (like a transformer) 1:1 means that , say 75 ohm in will still be 75 ohm on the output side, 1:4 means that the same
75 ohms in will become matched at 300 ohms on the output side, 1:9 would give you 675 ohms on the output
side! BUT, a longwire antenna is a different beast, altogether!! its impedence can change drastically, depending upon length, frequency applied, height above ground, ect. A antenna tuner can match our 75, or 50 ohm from a transciever, to very complex impediences , even reactive impedences Like 67 ohm capacitive and 22 ohm
resistive, or even inductive reactances ! and, for recieve, probably makes little difference, unless you have
lots of feedline loss! It would be the same for transmitting, except, that many rigs (especially solid state) dont
like impedences that the were designed for, causinf a swr monitoring device to shut down the power amp, or worse-- causing excessive voltages to appear across the pa, causing self destruction! To use a tuner, simply adjust it, until you have a 1:1 match on an swr bridge, placed between the tuner, and your transmtter!
And, btw, maximum power transfer occurs when the input impedence and the output impedence are the same!
that is what the tuner does-- makes the input impedence match the output impedence-- have fun! Jim NN7K

"Whoopydoo" <vk3kcg@guess the rest.con> wrote in message
news:40308f71$0$28867$afc38c87@news.optusnet.com.au...
> http://dxantennas.com
>
>
> "Richard" <nearlynews_email@ntlworld.com> wrote in message
> news:c0ooe1$19p4hp$1@ID-150848.news.uni-berlin.de...
> >
> > "JEFF UK" <Birdnbloke@btopenworld.com> wrote in message
> > news:c0ocs3$1qo$1@titan.btinternet.com...
> > > Hi.
> > > Would some please explain to me the different types of SWL Baluns and
> > > what type should be used for which antenna.?
> > > I use a long wire at the moment. What is best for this.?
> > > 1:1, 1:4, 1:9 ??? Not sure what all this means.
> > > Is there a site where i can see different homebrew projects for each

of
> > > these ?
> > > All help welcome
> > > Regards
> > > Jeff

2651. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 21:12:42 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4031324A.D508BC8C@cwis.net>
Source record: 99823

Ken,
Most 11 meter antennas will work on 10 meters with just
a little retuning, so it should work. The 'RCA' plug will
be a problem so either change it or use an adaptor.
'Doc

2652. Re: dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 21:35:46 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <SIaYb.6291$tL3.5434@newsread1.news.pas.earthlink.net>
Source record: 99824

Steve -

This type of antenna works, and can work VERY well.

But Reg left out a very important detail: You will need some
form of wide-range antenna tuner for multi-band operation.

Your rig may have a built-in tuner that will work over at least some
of the frequency range. Another option is to buy a desk-top tuner.
(Life will be simpler if you buy one that is sized to your present and
near-future power requirements.) Yet another option is to implement
a tuner in distributed form using switchable lengths of the same ladder
line you use in your feedline. (This will require some home-brewing
aptitude, and possibly a very tolerant XYL.) There is a strong advocate
of this approach that frequently posts here, and can tell you all about it.
Don't forget you will need to re-tune when you QSY, unless you have
implemented some form of auto-tuner.

For what it's worth, I dealt with a similar situation using W9INN multi-
band dipoles in an inverted vee configuration; and I'd do it again in a
heartbeat. Meanwhile, a friend of mine decided to try the classic vee+
ladder line+tuner approach, and he's been fighting it for a few months now.
He's on his second or third tuner, while I don't even need one. I think
he'd do it "my" way, if he was starting again.

73, Ed

2653. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 21:49:22 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <1032en4rfbkv3d7@corp.supernews.com>
Source record: 99825

Bruce-- there is an antenna--made for heavy equipment, and railroads that would
solve your problem, if you could find one-- these are spendy, or if spmeone can
tell you how to build one-- Used lots of them, they are called an EXCALIBUR antenna, and are about 3-4 inches high, about 18-20 inches long, and look kinda
like an anvil with the center hollowed out
(these are a "SLOT" antenna, and, tho mount horizontally, radiate
in the verticle plane!) If can find someone here, that can design one, and probably
be pretty good market for them!, might give that a try--would take 2 or 3 mag mounts
the comercial version mounts with 6 sheet metal screws, or bolts! But they do work,
and quite well (used for locomotives, and for talking hot box detectors on railroad on
old S.P. on signal cases for various detectors, they look like someone put a "HANDLE"
on a signal case!! Also, might find under the EXCALIBUR name , on Motorola's web
page (food for thought)?? Jim NN7K (ex radioman-- Southern, and UNION Pacific Railroads)
P.S. they also have one, covers 450-470 MHz .

"Bruce D. Meyer" wrote
I park in a parking garage at work, so my 2 meter anetnnae won't fit on the car (P.T. Cruiser) while in the garage. Removing it, just before entering the garage is not an option. Does anyone have a recomendation on an alternate 2 meter antennae?

Bruce Meyer

www.kg4tac.net

2654. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 22:27:17 UTC
From: Duane Allen <computeruser@sprintmail.com>
Message-ID: <9tbYb.6254$WW3.1969@newsread2.news.pas.earthlink.net>
Source record: 99826

Jim, WP3JQ wrote:

> ... Since the question pool has changed, has the material changed? Should I
> go buy the 8th printing to make sure I have a manual that focuses on newer
> requirements?

Jim,

Mike, KB3EIA suggests using
http://www.arrl.org/arrlvec/2002_Extra_Pool3.pdf. This is a good idea.
You also will need the graphics
http://www.arrl.org/arrlvec/2002_Extra_Graphics.pdf that go along with
the question pool.

Actually the questions of the pool are arranged very nicely for
organizing your studies. And they contain indication of how many
questions on the exam are related to each general area. Basically one
question from each group. If you can answer all the questions in each
group, you should be able to answer all the exam questions.

SUBELEMENT E1 -- COMMISSION'S RULES [7 Exam Questions -- 7 Groups]
Download the Part 97 rules from
http://www.access.gpo.gov/nara/cfr/waisidx_02/47cfr97_02.html

SUBELEMENT E2 -- OPERATING PROCEDURES [5 Exam Questions - 5 Groups]
SUBELEMENT E3 -- RADIO WAVE PROPAGATION [3 Exam Questions - 3 Groups]
SUBELEMENT E4 -- AMATEUR RADIO PRACTICES [5 Exam Questions -- 5 Groups]
SUBELEMENT E5 -- ELECTRICAL PRINCIPLES [9 Exam Questions -- 9 Groups]
SUBELEMENT E6 -- CIRCUIT COMPONENTS [5 Exam Questions -- 5 Groups]
SUBELEMENT E7 -- PRACTICAL CIRCUITS [7 Exam Questions -- 7 Groups]
SUBELEMENT E8 -- SIGNALS AND EMISSIONS [4 Exam Questions -- 4 Groups]
SUBELEMENT E9 -- ANTENNAS [5 Exam Questions -- 5 Groups]

For your studies, since you don't want to depend on rote memory of the
answers, I suggest that you go throught all the questions as if you were
taking an open book exam. If you have a good knowledge, two hours per
day for two weeks or less should get you through the questions.

During my review, for those questions where I didn't know answer or had
forgotten the equations, I looked up the material in references. The
ARRL Handbook served as a reference for more than 80 percent of
subelements E2 through E9. A calculator that can convert between
rectangular and polar coordinates proved very useful. While most of my
review just refreshed that which I knew before, in answering questions
on Q, I actually learned something new.

Best wishes,

Duane, N6JPO

2655. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-16 23:15:46 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <CacYb.2894$t16.2394482@newssvr28.news.prodigy.com>
Source record: 99827

"Drink" <drink@gnt.net> wrote in message
news:c0pbu1$o4j$1@news.utelfla.com...
> I've been studying for my Extra Class for a pretty long time now
(Sheesh!
> A couple YEARS) and understand that the question pool has changed. No,
I'm
> not interested in a question pool/cheat sheet. I want to make sure I
> understand all the subject matter and pass the test. I have the "ARRL
Extra
> Class License Manual" published in 2000 and want to continue studying with
> it. Here's my question.
> Since the question pool has changed, has the material changed? Should I
> go buy the 8th printing to make sure I have a manual that focuses on newer
> requirements?
> o_o_o_o
> Best Regards, /| ,[_____],
> Jim, WP3JQ |ï¿½ï¿½ï¿½L --O|||||||O-
> ()_)ï¿½()_) ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½)_)
> EM60qk 30.447439N 086.628959W
>
>

Try the practice exams at sites like QRZ.com and I think eham has them also.

However, the license manual published in 2000 is seriously out of date.
Since that time, the material has been dramatically expanded. The material
from the old Advanced Class licensed was added into the Extra exam and there
have also been some rule changes. Most of that Advanced Class material was
NOT covered in the guide available in 2000. You've missed the window where
the Extra exam had not yet been upgraded to include that material.

So try the practice exams and see where you stand. The odds are that you
will need to study the 8th edition to successfully prepare for the test.

Dee D. Flint, N8UZE

2656. Want K2BT "Ham Radio" articles on phasing verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 01:33:17 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@no_spam.peoplepc.com>
Message-ID: <1032rqvr1es0ua4@corp.supernews.com>
Source record: 99828

Forrest Gehrke wrote a series of articles in the 70's on
the technical details of phasing verticals. I think there were
4 or 5 articles in Ham Radio Magazine. I would love to get copies or buy the
magazines from someone. He used
to be my qsl manager years ago when I was a DX station. I am now looking
into phasing some verticals now that I have the room to do it. I'd like to
start on 40m.

Doug N4IJ

2657. Re: Want K2BT "Ham Radio" articles on phasing verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 01:43:26 UTC
From: TOM <noname@noprovider.nodomain>
Message-ID: <2leYb.34140$1S1.32085@nwrddc01.gnilink.net>
Source record: 99829

This was surely the best and definitive work on phasing and feeding vertical arrays.

You can buy the CDROM from ARRL or CQ. It's broken into 3 sets which can be purchased sepately:
1968-1976
1977-1983
1984-1990

"Vertical Phased Arrays: Part 1," Gehrke, Forrest, K2BT, Ham Radio, May 1983, pp. 18-21
"Vertical Phased Arrays: Part 2," Gehrke, Forrest, K2BT, Ham Radio, June 1983, pp. 24-29, 33-36
"Vertical Phased Arrays: Part 3," Gehrke, Forrest, K2BT, Ham Radio, July 1983, pp. 26-27, 29-34
"Vertical Phased Arrays: Part 4," Gehrke, Forrest, K2BT, Ham Radio, October 1983, pp. 34-36, 38-40, 42-45
"Vertical Phased Arrays: Part 5," Gehrke, Forrest, K2BT, Ham Radio, December 1983, pp. 59-64
"Vertical Phased Arrays: Part 6," Gehrke, Forrest, K2BT, Ham Radio, May 1984, pp. 45-47, 49-50, 52, 55-57, 59

-- Tom, N5EG

"DOUGLAS SNOWDEN" <SNOWDEN@no_spam.peoplepc.com> wrote in message news:1032rqvr1es0ua4@corp.supernews.com...
> Forrest Gehrke wrote a series of articles in the 70's on
> the technical details of phasing verticals. I think there were
> 4 or 5 articles in Ham Radio Magazine. I would love to get copies or buy the
> magazines from someone. He used
> to be my qsl manager years ago when I was a DX station. I am now looking
> into phasing some verticals now that I have the room to do it. I'd like to
> start on 40m.
>
> Doug N4IJ
>
>
>
>

2658. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 01:53:11 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <bueYb.44123$yE5.184960@attbi_s54>
Source record: 99830

The audio cable is a problem.

Why not just buy a 10 meter antenna?

Ken wrote:

> I have an old mag mount RS CB antenna with a 24" (approx.) telescopic
> whip. It is fitted with an integral audio cable (as the feedline)
> terminating in (what else?) a male RCA jack that plugs into the CB's
> antenna jack. The CB is rated at 5 watts FM.
>
> The whip can be shortened quite a bit. Is there any reason it
> wouldn't resonate on 10M?
>
> Audio cable ain't RG-8/U, but is it enough to handle 30 watts FM on
> 10M?
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

2659. Balun Toroids?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 02:05:06 UTC
From: mustang <adrian@ratherbeflying.net>
Message-ID: <40317710$1_4@news.chariot.net.au>
Source record: 99831

Does anyone know if the toroids in pc power supplies would be suitable
for low power balun experiments for up to 30MHz?
Thanks,
Adrian.

2660. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 02:22:16 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <7OOdnb6DS89C56zdRVn-uQ@comcast.com>
Source record: 99832

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:bueYb.44123$yE5.184960@attbi_s54...
> The audio cable is a problem.
>
> Why not just buy a 10 meter antenna?
>
Yeah, and the 24 inch whip is not going to be a ball of fire either.

Tam/WB2TT

2661. Re: Balun Toroids?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 02:22:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40317bdf_1@corp.newsgroups.com>
Source record: 99833

mustang wrote:
> Does anyone know if the toroids in pc power supplies would be suitable
> for low power balun experiments for up to 30MHz?

If they are the toroids used in the switching power supply as transformers,
they are not very good for RF. They are probably powdered iron cores
optimized for a frequency like 400 Hz. Most baluns use ferrite toroids
optimized for a range of RF frequencies.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2662. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 02:29:14 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40317d61$1_1@corp.newsgroups.com>
Source record: 99834

Ken wrote:
> I have an old mag mount RS CB antenna with a 24" (approx.) telescopic
> whip.
> Audio cable ain't RG-8/U, but is it enough to handle 30 watts FM on
> 10M?

If it is 24" long, it has a coil somewhere. That coil is designed to
handle 5 watts AM. It might handle 30 watts SSB but probably not 30
watts FM.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2663. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 03:56:19 UTC
From: "Bruce D. Meyer" <noforhumanconsumption@spambites.wow>
Message-ID: <DhgYb.13305$eL2.1412877@twister.southeast.rr.com>
Source record: 99835

Wow! I never heard of such. I remeber an antennae we had on an M113A3 APC
for the Air Force. Looked just like a sharks fin, but only about 4 inches
tall. I will do some searching for Excalibur. Thank you for passing that on.

Bruce Meyer
www.kg4tac.net

"Jim" <NN7K@Reno.Rmci.Net> wrote in message
news:1032en4rfbkv3d7@corp.supernews.com...
> Bruce-- there is an antenna--made for heavy equipment, and railroads that
> would
> solve your problem, if you could find one-- these are spendy, or if
spmeone
> can
> tell you how to build one-- Used lots of them, they are called an
EXCALIBUR
> antenna, and are about 3-4 inches high, about 18-20 inches long, and look
> kinda
> like an anvil with the center hollowed out
> (these are a "SLOT" antenna, and, tho mount horizontally, radiate
> in the verticle plane!) If can find someone here, that can design one,
and
> probably
> be pretty good market for them!, might give that a try--would take 2 or 3
> mag mounts
> the comercial version mounts with 6 sheet metal screws, or bolts! But
they
> do work,
> and quite well (used for locomotives, and for talking hot box detectors
on
> railroad on
> old S.P. on signal cases for various detectors, they look like someone
put
> a "HANDLE"
> on a signal case!! Also, might find under the EXCALIBUR name , on
> Motorola's web
> page (food for thought)?? Jim NN7K (ex radioman-- Southern, and UNION
> Pacific Railroads)
> P.S. they also have one, covers 450-470 MHz .
>
>
>
> "Bruce D. Meyer" wrote
> I park in a parking garage at work, so my 2 meter anetnnae won't fit on
the

> car (P.T. Cruiser) while in the garage. Removing it, just before entering
> the garage is not an option. Does anyone have a recomendation on an
> alternate 2 meter antennae?
>
>
> Bruce Meyer
>
> www.kg4tac.net
>
>

2664. Re: Can anyone recommend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 03:57:21 UTC
From: "Bruce D. Meyer" <noforhumanconsumption@spambites.wow>
Message-ID: <BigYb.13306$eL2.1412985@twister.southeast.rr.com>
Source record: 99837

I hear you. When I knocked my antennae off i had just swooped on into a parking garage (I had a pickup then) and knocked that sucker right off the top of my truck. My blood froze in my veins...

"bunnydawg" <r.heenan@sympatico.ca> wrote in message news:nG6Yb.2890$d34.423151@news20.bellglobal.com...
> Still remember the sound of of breaking flourscent lights the first time i
> parked in an underground parking lot.
> My learning curve improved after that lol.
> Robert
> "Mikey" <ki6pr@arrl.net> wrote in message
> news:402f92f2_6@newsfeed.slurp.net...
> > Can you at least bend something over? Comet makes a series of VHF/UHF
> > antennas with a breakover joint at the base.
> >
> > Your other choice is to mount the antenna on a bumper, and live with
> reduced
> > performance...
> >
> > - Mike KI6PR
> > El Rancho R.F., CA
> >
> > "Bruce D. Meyer" wrote
> > > I park in a parking garage at work, so my 2 meter anetnnae won't fit
on
> > the
> > > car (P.T. Cruiser) while in the garage. Removing it, just before
> entering
> > > the garage is not an option. Does anyone have a recomendation on an
> > > alternate 2 meter antennae?
> > >
> > > Bruce Meyer
> > > www.kg4tac.net
> > >
> > >
> >
> >
>
>

2665. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 03:59:09 UTC
From: "Bruce D. Meyer" <noforhumanconsumption@spambites.wow>
Message-ID: <hkgYb.13309$eL2.1413408@twister.southeast.rr.com>
Source record: 99836

I have a PT Druiser, so almost the eintire length of the 5/8th wave would radiate directly into the body of my car. if I mounted onto the plastic bumper. Fold-away IS an option, that and the shorter 1/4 wave. I am researching a few of the posts, and will now add the Comet to my list.

Thank you for your help.

Bruce Meyer
www.kg4tac.net

"Mikey" <ki6pr@arrl.net> wrote in message
news:402f92f2_6@newsfeed.slurp.net...
> Can you at least bend something over? Comet makes a series of VHF/UHF
> antennas with a breakover joint at the base.
>
> Your other choice is to mount the antenna on a bumper, and live with
reduced
> performance...
>
> - Mike KI6PR
> El Rancho R.F., CA
>
> "Bruce D. Meyer" wrote
> > I park in a parking garage at work, so my 2 meter anetnnae won't fit on
> the
> > car (P.T. Cruiser) while in the garage. Removing it, just before
entering
> > the garage is not an option. Does anyone have a recomendation on an
> > alternate 2 meter antennae?
> >
> > Bruce Meyer
> > www.kg4tac.net
> >
> >
>
>

2666. Looking for protable antenna mast with tripod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 08:11:34 UTC
From: DJboutit <Recordking@Hotmail.com>
Message-ID: <W0kYb.513$OM1.14@newssvr22.news.prodigy.com>
Source record: 99838

I am looking for a new or used a protable telescoping antenna mast with tripod for $200 or less. The ones I have see on ebay kinda look like a camera tripod with a 36ft to 80ft telescoping mast where can I get one of these kinda cheap. Would the best place to get one of the be at a arm/military surpuls store. I am in half way between Dallas & Austin so any place near here on online will do fine also in the Houston area would work to.

2667. Re: Balun Toroids?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 08:15:49 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0402170015.70ba8717@posting.google.com>
Source record: 99839

The basic frequency of SPSU is usually in the range of 40 - 60 kHz. I see no reason why the cores should be optimized for 400 Hz. Moreover, the waveforms in SPSUs are rich of harmonics. According to Miro OM3CKU at http://www.cq.sk/modules.php?name=News&file=print&sid=53 , the transformer toroid cores from PC SPSUs are suitable in HF baluns up to 150 watts and in ATUs up to at least 50 watts.

73 Ivan OK1SIP

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:<40317bdf_1@corp.newsgroups.com>...
> mustang wrote:
> > Does anyone know if the toroids in pc power supplies would be suitable
> > for low power balun experiments for up to 30MHz?
>
> If they are the toroids used in the switching power supply as transformers,
> they are not very good for RF. They are probably powdered iron cores
> optimized for a frequency like 400 Hz. Most baluns use ferrite toroids
> optimized for a range of RF frequencies.

2668. Re: microstrip antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 08:20:05 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0402170020.135abb7d@posting.google.com>
Source record: 99840

Hi Adam,
the antennas are made directly on the device's PCB in the form of
meander or loop. IMHO nobody sells them separately.

BR from Ivan

ultanir_99@yahoo.com (erdem) wrote in message
news:<c403e21f.0402151008.60765b3@posting.google.com>...
> I am looking for microstrip antennas that work around 400Mhz, and can
> fit into a key chain. What I heard is; car starters, lockers all have
> these kind of antennas, but I cannot find any place who sells these
> things. Could you guys help?
>
> Thanks,
> Adam

2669. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 10:42:13 UTC
From: Dick Ballard <ballardr@att.net>
Message-ID: <n5r3309t2j5grvhauvk0keom8k5plandt7@4ax.com>
Source record: 99841

Try the Comet SBB-1NMO dual band mounted on mag mount base with NMO connector such as Larsen MNO MM. Page 98 of HRO Winter 03 catalog, $39.95. It's 17 inches long (plus an inch for the mag mount), looks like a rubber duck, and is super flexible.

I have one on my Toyota Land Cruiser which is quite tall. The antenna hits some of the overheads in an 84 inch (7 ft) clearance garage, but it just flexes and plonks along. I would think that your vehicle is not as tall as mine so that even the Larsen NMOQ 2/70 B at 18 inches might work. That one is on page 100 of HRO catalog.

Dick Ballard
Beaverton OR
W7AND

On Sun, 15 Feb 2004 02:30:24 GMT, "Bruce D. Meyer" <bdmeyer44@msn.com> wrote:

>I park in a parking garage at work, so my 2 meter anetnnae won't fit on the
>car (P.T. Cruiser) while in the garage. Removing it, just before entering
>the garage is not an option. Does anyone have a recomendation on an
>alternate 2 meter antennae?

2670. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 11:12:58 UTC
From: Scott Vanzandt <zandt@midsouth.rr.com>
Message-ID: <f4r3301732eekuii3ejm6dnbcfklpq603n@4ax.com>
Source record: 99842

I use a diamond NR72BNMO aboutt 14" or so. I get great results and it
is very low profile. I live around Memphis, TN, and I work on the
other side of town from our repeater and consistantly get in on low
power. Gain is only about 2.1 on 2M and 70CM, but does me well.

Scott
N2WMD

On Mon, 16 Feb 2004 08:04:20 -0800, "Mikey" <ki6pr@arrl.net> wrote:

>Can you at least bend something over? Comet makes a series of VHF/UHF
>antennas with a breakover joint at the base.
>
>Your other choice is to mount the antenna on a bumper, and live with reduced
>performance...
>
>- Mike KI6PR
>El Rancho R.F., CA
>
>"Bruce D. Meyer" wrote
>> I park in a parking garage at work, so my 2 meter anetnnae won't fit on
>the
>> car (P.T. Cruiser) while in the garage. Removing it, just before entering
>> the garage is not an option. Does anyone have a recomendation on an
>> alternate 2 meter antennae?
>>
>> Bruce Meyer
>> www.kg4tac.net
>>
>>
>

2671. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 11:55:08 UTC
From: "Bruce D. Meyer" <noforhumanconsumption@spambites.wow>
Message-ID: <winYb.17536$jx3.2082016@twister.southeast.rr.com>
Source record: 99843

This sounds good. Since I already have a Larsen NMO Mag Mount, this makes
for good economy also.
Thank-you.

Bruce

"Dick Ballard" <ballardr@att.net> wrote in message
news:n5r3309t2j5grvhauvk0keom8k5plandt7@4ax.com...
> Try the Comet SBB-1NMO dual band mounted on mag mount base with NMO
> connector such as Larsen MNO MM. Page 98 of HRO Winter 03 catalog,
> $39.95. It's 17 inches long (plus an inch for the mag mount), looks
> like a rubber duck, and is super flexible.
>
> I have one on my Toyota Land Cruiser which is quite tall. The antenna
> hits some of the overheads in an 84 inch (7 ft) clearance garage, but
> it just flexes and plonks along. I would think that your vehicle is
> not as tall as mine so that even the Larsen NMOQ 2/70 B at 18 inches
> might work. That one is on page 100 of HRO catalog.
>
> Dick Ballard
> Beaverton OR
> W7AND
>
>
> On Sun, 15 Feb 2004 02:30:24 GMT, "Bruce D. Meyer" <bdmeyer44@msn.com>
> wrote:
>
> >I park in a parking garage at work, so my 2 meter anetnnae won't fit on
the
> >car (P.T. Cruiser) while in the garage. Removing it, just before entering
> >the garage is not an option. Does anyone have a recomendation on an
> >alternate 2 meter antennae?
>

2672. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 11:57:36 UTC
From: "Bruce D. Meyer" <noforhumanconsumption@spambites.wow>
Message-ID: <QknYb.17537$jx3.2080978@twister.southeast.rr.com>
Source record: 99844

I am glad to hear this, I was a bit discouraged by a post about reduced perofrmance. i understand that going to 1/4 wave will giv eme reduced performance, but glad to hear you can still deal with the concrete jungle. I work in Columbia, SC> We have a good bunch of repeaters in the City (Even an IRLP!) You folks have been very helpful. (Why did I wait so long to ask?) sheesh.

Bruce
"Scott Vanzandt" <zandt@midsouth.rr.com> wrote in message
news:f4r3301732eekuii3ejm6dnbcfklpq603n@4ax.com...
> I use a diamond NR72BNMO aboutt 14" or so. I get great results and it
> is very low profile. I live around Memphis, TN, and I work on the
> other side of town from our repeater and consistantly get in on low
> power. Gain is only about 2.1 on 2M and 70CM, but does me well.
>
> Scott
> N2WMD
>
> On Mon, 16 Feb 2004 08:04:20 -0800, "Mikey" <ki6pr@arrl.net> wrote:
>
> >Can you at least bend something over? Comet makes a series of VHF/UHF
> >antennas with a breakover joint at the base.
> >
> >Your other choice is to mount the antenna on a bumper, and live with
reduced
> >performance...
> >
> >- Mike KI6PR
> >El Rancho R.F., CA
> >
> >"Bruce D. Meyer" wrote
> >> I park in a parking garage at work, so my 2 meter anetnnae won't fit on
> >the
> >> car (P.T. Cruiser) while in the garage. Removing it, just before
entering
> >> the garage is not an option. Does anyone have a recomendation on an
> >> alternate 2 meter antennae?
> >>
> >> Bruce Meyer
> >> www.kg4tac.net
> >>
> >>
> >
>

2673. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 12:15:10 UTC
From: Phil <phil.bradway@verizon.net>
Message-ID: <iBnYb.52639$IF1.46284@nwrdny03.gnilink.net>
Source record: 99845

You might consider a DDRR antenna. See
http://www.antennex.com/preview/2mddrr.htm. They are available commercially,
too.

Phil, KB2HQ

"Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
news:9nvu20h9cqt0rjt6qvvi3mehsdf6hrsv8k@4ax.com...
> On Sun, 15 Feb 2004 02:30:24 GMT, "Bruce D. Meyer" <bdmeyer44@msn.com>
> wrote:
>
> >I park in a parking garage at work, so my 2 meter anetnnae won't fit on
the
> >car (P.T. Cruiser) while in the garage. Removing it, just before entering
> >the garage is not an option. Does anyone have a recomendation on an
> >alternate 2 meter antennae?
> >
> >Bruce Meyer
> >www.kg4tac.net

2674. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 12:38:51 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <mXnYb.502$C21.147@fed1read07>
Source record: 99846

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:c0quphram1@newshost.mot.com...
>
> "Ed Price" <edprice@cox.net> wrote in message
> news:jaoXb.72863$fD.59039@fed1read02...
> > THAT
> > "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> > news:c0ji6c$ee7$1@newshost.mot.com...
> > > Diathermy was mentioned in the longwire exposure thread and made me
> think
> > of
> > > this long standing problem here in northern IL..
> > >
> > > For some years now, there has been interference on the local 2M
repeater
> > > (145.41) which sounds just like the diathermy I used to hear on 10M
long
> > > ago. [snip]
> > > Steve N, K,9;d, c. i My email has no u's.
>
> > [snip] If the RF source is quite close to the repeater, maybe you are
> > seeing an image response to the 5th harmonic.
> > wb6wsn
>
> Not an image. Spec analizer and many other receivers hear it, as well
> as other repeaters.
>
> Steve

Well, if you have that much time to observe the offending signal, start
DF'ing it.

Ed
wb6wsn

2675. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 13:42:18 UTC
From: "Bruce D. Meyer" <noforhumanconsumption@spambites.wow>
Message-ID: <_SoYb.17548$jx3.2099631@twister.southeast.rr.com>
Source record: 99847

Very neat! I love the idea.
Bruce, KG4TAC
"Phil" <phil.bradway@verizon.net> wrote in message
news:iBnYb.52639$IF1.46284@nwrdny03.gnilink.net...
> You might consider a DDRR antenna. See
> http://www.antennex.com/preview/2mddrr.htm. They are available
commercially,
> too.
>
> Phil, KB2HQ
>
> "Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
> news:9nvu20h9cqt0rjt6qvvi3mehsdf6hrsv8k@4ax.com...
> > On Sun, 15 Feb 2004 02:30:24 GMT, "Bruce D. Meyer" <bdmeyer44@msn.com>
> > wrote:
> >
> > >I park in a parking garage at work, so my 2 meter anetnnae won't fit on
> the
> > >car (P.T. Cruiser) while in the garage. Removing it, just before
entering
> > >the garage is not an option. Does anyone have a recomendation on an
> > >alternate 2 meter antennae?
> > >
> > >Bruce Meyer
> > >www.kg4tac.net
>
>

2676. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 14:25:50 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <OvpYb.538$aW2.399@newssvr22.news.prodigy.com>
Source record: 99848

"Mikey" <ki6pr@arrl.net> wrote in message
news:402f9624_5@newsfeed.slurp.net...
> Gary, you've got a lot of choices. Radio Shack, or your local TV shop, or
> even Home Depot can sell you steel masts, and guy wires, as well as house
> brackets. I don't recommend this, though, if you're wanting to do an
> inverted vee (why would anyone want one of those, anyway?).

What do *you* use on 75/80m? Most folks use an
inverted vee... very easy to erect. My lot has power
lines in the back, and street in the front, and is narrow;
the vee makes a lot of sense for my installation.

Inverted vees are more omnidirectional than dipoles,
and are closer to 50ohms impedance. There is a real
bonus from not having to put up *two* supports, as
well as having the one support in the middle, where
guys (if necessary) are easier to fit on your property.

> But if you
> insist on a vee, then you should probably consider either a Rohn 25/45
> tower, or look at ABS/PVC 3" pipes - you can get them in 20' sections,
> they're easy to join together, and they can be guyed with nylon/dacron
line.

Now why would someone put up a tower just to
hold an inv. vee? And a PVC mast? I have never
seen one used... it's going to have more wind loading,
as well as taking up more sky space for the neighbors.

--
Steve
KI5YG
.

> "Gary Boyer" wrote
> > I am looking for some suggestions on putting up a 30-40 foot mast or
push
> up
> > pole...it does not have to be the fiberglass poles that you see
> > advertised...the mast would be used for an inverted vee 80 meter antenna
> > only...also, how do you bracket to the house or how would you attach it
to
> > something similar...thanks...Gary...K8BY
> >
> >
>
>

2677. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 14:26:07 UTC
From: jder8745@aol.com
Message-ID: <20040217092607.00995.00000971@mb-m10.aol.com>
Source record: 99849

Howdy,

The thing I have noticed in my travels is that most of the quad antennas I've seen are CB antennas.

And many of them are damaged presumeably by the wind. I seem to see the wires "blowin' in the wind".

It's hard to beat a Yagi for gain, performance, durability, weight, cost, ability to match, etc.

73, Jack K9CUN

2678. GSM patch antenna (900/1800/1900 MHz) ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 14:31:24 UTC
From: charlie <charlie@earth.planet>
Message-ID: <10349dttht1u23f@corp.supernews.com>
Source record: 99850

(newbie here)

I'm cobbling together a hobby project with a GSM module (1900 MHz). It needs a fairly small antenna but I haven't found anything online (digikey.com, mouser.com, emj.com)

Would you have a recommendation or design I can use for this purpose?

Thanks, Caesar.

2679. FA: Trap Dipole & RF Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 14:55:06 UTC
From: Max <codtrap@usa.net>
Message-ID: <40322B4A.39F4CD93@usa.net>
Source record: 99855

To View:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&include=0&userid=newfoundlander&sort=3&rows=25&since=-1&rd=1

Thanks

2680. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 14:59:49 UTC
From: Vito <vito@crosslink.net>
Message-ID: <40322c6b$0$32013@dingus.crosslink.net>
Source record: 99851

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:2me0305u8a3svas5d9dkolson1fq2kd29v@4ax.com...
> On Sun, 15 Feb 2004 21:03:50 -0600, "Drink" <drink@gnt.net> wrote:
>
> > I've been studying for my Extra Class .....
>
> Hi OM,
>
> Relieve the stress and just take the test. You don't need a perfect
> score to pass.
>
> If you don't pass, take it again.....

Try a practice exam at www.qrz.com.

Understanding the answers is all well and good but more and more the "right"
answer depends on FCC and/or ARRL fiat rather than physics. Nor is that
unreasonable. Why require theory if everybody is an appliance ham anyway?
The times, they are a changing and nobody can stop it.

73, K3DWW

2681. Re: GSM patch antenna (900/1800/1900 MHz) ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 15:09:13 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <qf6dnTODCs49s6_dRVn-hA@comcast.com>
Source record: 99852

Do a web search on " Cellphone Antennas" and you will get a hundred hits. You can also go to a local cellphone store and buy an external cellphone antenna that is meant to be glued to a car window for maybe $15. The one type is a patch antenna in a plastic housing with about 8 feet of coax attached.

Tam/WB2TT
"charlie" <charlie@earth.planet> wrote in message news:10349dttht1u23f@corp.supernews.com...
> (newbie here)
>
> I'm cobbling together a hobby project with a GSM module (1900 MHz). It needs
> a fairly small antenna but I haven't found anything online (digikey.com,
> mouser.com, emj.com)
>
> Would you have a recommendation or design I can use for this purpose?
>
> Thanks, Caesar.
>
>

2682. Re: GSM patch antenna (900/1800/1900 MHz) ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 15:11:14 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <O8ydnW8SYbWEsq_dRVn-vA@comcast.com>
Source record: 99853

I should have mentioned that you need a store that handles ATT, Cingular, or T Mobile.

Tam/WB2TT

2683. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 15:18:45 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <5pudnS3KefdBra_dRVn-jA@comcast.com>
Source record: 99854

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40317d61$1_1@corp.newsgroups.com...
> Ken wrote:
> > I have an old mag mount RS CB antenna with a 24" (approx.) telescopic
> > whip.
> > Audio cable ain't RG-8/U, but is it enough to handle 30 watts FM on
> > 10M?
>
> If it is 24" long, it has a coil somewhere. That coil is designed to
> handle 5 watts AM. It might handle 30 watts SSB but probably not 30
> watts FM.
> --
> 73, Cecil http://www.qsl.net/w5dxp

On such a short antenna, the whole thing may be helically wound. I once bought an 18 inch long 11m antenna for RC use. It consisted of wire wound on a fiberglass rod, covered with a plastic sleeve

Tam/WB2TT.

Tam/WB2TT

2684. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 16:25:21 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4032415a_5@corp.newsgroups.com>
Source record: 99856

Tarmo Tammaru wrote:

> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>Ken wrote:
>>>I have an old mag mount RS CB antenna with a 24" (approx.) telescopic
>>>whip.

>>If it is 24" long, it has a coil somewhere. That coil is designed to
>>handle 5 watts AM. It might handle 30 watts SSB but probably not 30
>>watts FM.
>
> On such a short antenna, the whole thing may be helically wound.

Is there such a thing as a telescoping helical antenna?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2685. Re: question about 160m Isotron Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 16:30:52 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403242a5$1_5@corp.newsgroups.com>
Source record: 99857

K9SQG wrote:
> The laws of physics must prevail...

Before or after those laws are revised? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2686. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 16:30:53 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <403244ed_3@news1.prserv.net>
Source record: 99858

Ed:

I think Steve would be interested in hearing a methodology for DFing a non-stationary signal, as would I. I have tried to track one of these spurs with a receiver while simultaneously attempting to get a bearing, and gave up. The Doppler DF systems need it in the passband and frequency stable for at least one "revolution" of the virtual antenna, which doesn't happen, so let's hear what works.

--
Crazy George
Remove N O and S P A M imbedded in return address

"Ed Price" <edprice@cox.net> wrote in message
news:mXnYb.502$C21.147@fed1read07...
>
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:c0quphram1@newshost.mot.com...
> >
> > "Ed Price" <edprice@cox.net> wrote in message
> > news:jaoXb.72863$fD.59039@fed1read02...
> > > THAT
> > > "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> > > news:c0ji6c$ee7$1@newshost.mot.com...
> > > > Diathermy was mentioned in the longwire exposure thread and made me
> > think
> > > of
> > > > this long standing problem here in northern IL..
> > > >
> > > > For some years now, there has been interference on the local 2M
> repeater
> > > > (145.41) which sounds just like the diathermy I used to hear on 10M
> long
> > > > ago. [snip]
> > > > Steve N, K,9;d, c. i My email has no u's.
> > >
> > > [snip] If the RF source is quite close to the repeater, maybe you are
> > > seeing an image response to the 5th harmonic.
> > > wb6wsn
> > >
> > Not an image. Spec analizer and many other receivers hear it, as
well
> > as other repeaters.
> >
> > Steve

>
>
> Well, if you have that much time to observe the offending signal, start
> DF'ing it.
>
> Ed
> wb6wsn
>

2687. FS: KLM-2M-20LBX BOOMER

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 16:48:27 UTC
From: n2ion@aol.com
Message-ID: <20040217114827.13140.00001441@mb-m20.aol.com>
Source record: 99859

I have for sale a KLM 2M-20 LBX 20 element boomer

20 elements on a 38.5 foot boom
15.5 db forward gain
10 lbs.

If you operate 2M sideband, this is the antenna for you.
There's nothing better around.

Price $175 Firm + shipping.

2688. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 16:50:07 UTC
From: richardharrison@webtv.net
Message-ID: <20939-4032463F-170@storefull-3252.bay.webtv.net>
Source record: 99861

Reg, G4FGQ wrote:
"If the input impedance is LESS THAN 50 ohms then an unun makes it worse>"

A transformer can step down as well as step up. Early crystal sets stepped down antenna impedance to the low impedance of the rectifier using a continuously variable autoformer (a sliding contact on a coil). Position was adjusted for best results.

Best regards, Richard Harrison, KB5WZI

2689. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 17:01:50 UTC
From: Ken Bessler <kg0wxIHATESPAM@yahoo.com>
Message-ID: <c0thdv$1b21fk$1@ID-213023.news.uni-berlin.de>
Source record: 99860

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4032415a_5@corp.newsgroups.com...
>
> Is there such a thing as a telescoping helical antenna?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>

Yea - it's called a slinky!

Ken KG0WX

2690. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 17:26:58 UTC
From: richardharrison@webtv.net
Message-ID: <20938-40324EE2-468@storefull-3252.bay.webtv.net>
Source record: 99862

Crazy George wrote:
"I think Steve would be interested in hearing a methodology for DFing a non-stationary signal, as would I."

Terman says on page 1050 of his 1955 edition:
"The errors in bearing caused by downcoming horizontally polarized sky waves can be eliminated by replacing the loop antenna with an Adcock antenna, which in its simplest form consists of two spaced vertical antennas, connected as shown in Fig. 26-28."

The ARRL Antenna book also gives information and says construction is not critical.

Best regards, Richard Harrison, KB5WZI

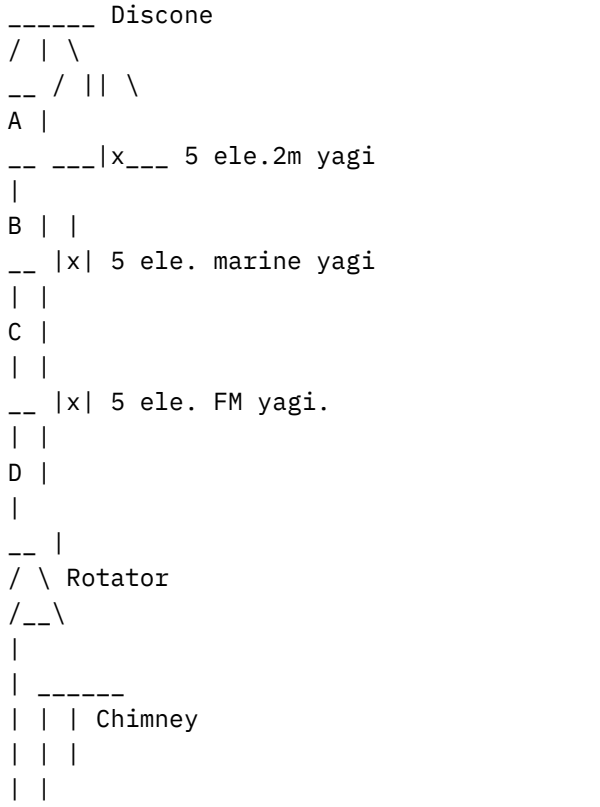
2691. Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 17:47:39 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0tk22$1audle$1@ID-150848.news.uni-berlin.de>
Source record: 99863

I've no real experience of putting up antennas on the chimney of a house.

Obviously, I must not overload the chimney breast.

I'm thinking about putting up the following:



I'm wondering about the spacings, A, B, C, and D.

A, spacing between bottom of the discone and the boom of 2 m yagi.

B, spacing between boom of 2m yagi and boom of marine band yagi.

C, spacing between boom of marine band yagi and boom of FM yagi.

D, spacing between boom of FM yago and top of rotator.

As for the mast, I'm thinking what about 1.5" steel tube.

As for rotator. No idea what model I'd need.

Any thoughts? Am I trying to be too ambitious? I could leave out the
marine yagi if I had to.

Thanks.

Rich.

2692. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 18:09:58 UTC
From: bunnydawg <r.heenan@sympatico.ca>
Message-ID: <GQsYb.4981$d34.764380@news20.bellglobal.com>
Source record: 99865

I'm wondering if your chimney will handle the weight ?
Robert

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c0tk22$1audle$1@ID-150848.news.uni-berlin.de...
> I've no real experience of putting up antennas on the chimney of a house.
>
> Obviously, I must not overload the chimney breast.
>
> I'm thinking about putting up the following:
>
>
> ______ Discone
> / | \
> __ / || \
> A |
> __ ___|x___ 5 ele.2m yagi
> |
> B | |
> __ |x| 5 ele. marine yagi
> | |
> C |
> | |
> __ |x| 5 ele. FM yagi.
> | |
> D |
> |
> __ |
> / \ Rotator
> /__\
> |
> | ______
> | | | Chimney
> | | |
> | |
>
> I'm wondering about the spacings, A, B, C, and D.
>
> A, spacing between bottom of the discone and the boom of 2 m yagi.
>
> B, spacing between boom of 2m yagi and boom of marine band yagi.
>
> C, spacing between boom of marine band yagi and boom of FM yagi.
>

> D, spacing between boom of FM yago and top of rotator.
>
> As for the mast, I'm thinking what about 1.5" steel tube.
>
> As for rotator. No idea what model I'd need.
>
> Any thoughts? Am I trying to be too ambitious? I could leave out the
> marine yagi if I had to.
>
> Thanks.
>
> Rich.
>
>

2693. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 18:17:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4em430lp34nqog05mm8ak6vu6j94nj2lct@4ax.com>
Source record: 99864

On Tue, 17 Feb 2004 17:47:39 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:

>I'm wondering about the spacings, A, B, C, and D.

Hi Richard,

You should be thinking more of the tensile failure of the brick mortar
leveraged by the moment of the load above. Chimneys are very strong
to compressive loads, and as brittle as candy to torsion.

The upshot of this is that on a windy night you may find the chimney
in your bed.

73's
Richard Clark, KB7QHC

2694. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 18:46:17 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <m34qtpzgqu.fsf@qmc.ph.msstate.edu>
Source record: 99866

>I've no real experience of putting up antennas on the chimney of a house.
>
>Obviously, I must not overload the chimney breast.

I think your antenna plan is workable.

At one qth I had up a 2 element 10m yagi and a 5 el 2m yagi on a chimney mount. Replaced those with a 2 el 15/10 quad for a while.

This was with a Radio Shack chimney mount. Just the chimney mount by itself was too flimsy. I found that it was necessary to add a set of guys, attached just below the rotator and running to the roof corners. The guys made the whole thing much more secure and took some of the windload off of the chimney.

Torsten
N4OGW

2695. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 19:01:10 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <403264F6.4478E922@uci.edu>
Source record: 99867

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > There is no convention describing
> > unidirectional flow of alternating current. That is what you've been
> > trying to say, i.e. current into one end of a coil.

> What do you mean there is no
> convention describing instantaneous current flow for AC?

What do *you* mean by it? I never said anything like that.

> From _University_Physics_ by Young and Freedman, 9th edition:
>
> "i = I cos(wt) where 'i' is the instantaneous current ..."

Yes, you'll also find that in one of my earlier posts in this thread.
Cecil, why don't you wait until you've finished learning this stuff
before you begin lecturing to me about it. I learned it a long time
ago.

73, Jim AC6XG

2696. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 19:37:03 UTC
From: garigue <garigue@comcast.net>
Message-ID: <z3uYb.49337$yE5.203451@attbi_s54>
Source record: 99868

> >I've no real experience of putting up antennas on the chimney of a house.

I have seen chimeys come down in severe wx with just large TV antennas on them. I guess it would be dependent not only on the structural integrity of the chimney but also physical size but I certainly would be careful. I don't know your particulars but wouldn't it be better to have something bolted on the side of the house even with the insurance issues????

Good Luck and God Bless Tom KI3R

2697. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 19:38:26 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40326DB2.5E64CB81@cwis.net>
Source record: 99769

Richard,
I'm not going to tell you that it's workable or not,
I have no honest way of doing so. At least not without
seeing your chimney, or rather putting my hands on it to
see what condition it's in and how well it's put together,
etc, etc. The most realistic thing anyone can tell you is
that in general, chimneys are not built to support anything
except themselves, and do not do well if large 'wind loads'
are placed on them.
The other side of that coin is that people have 'gotten-
away' with mounting antennas on chimneys for years with no
problems at all. Just depends on the chimney and how much
'stuff' you try to tack onto them.
Something else you may not have thought of is what does the
smoke and other combustion products do to the antennas and
rotor on the chimney? Of course, that depends on if you ever
use the 'fireplace', or not. What you burn if you do use it,
and how often you have it cleaned (if ever). You haven't
lived until you've had a chimney fire (LOL), inside or outside
the flue!
'Doc

2698. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 20:01:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403273f5_4@corp.newsgroups.com>
Source record: 99772

Jim Kelley wrote:
>
> Cecil Moore wrote:
>
>>Jim Kelley wrote:
>>>There is no convention describing
>>>unidirectional flow of alternating current. That is what you've been
>>>trying to say, i.e. current into one end of a coil.
>
>>What do you mean there is no
>>convention describing instantaneous current flow for AC?
>
> What do *you* mean by it? I never said anything like that.

There is indeed a convention for describing unidirectional flow of
alternating current during 1/2 of the AC cycle. And RMS is exactly a
convention, adopted from DC, of describing an equivalent unidirectional
flow of AC current. That is what has been confusing you all along. Once
again, AC current changes direction every 1/2 cycle and the sign of
the cos(phase) function determines which of two, and only two directions,
it flows. Current is NOT a vector. Current is a phasor with two and only
two directions in a wire. Your phasor current "phase" is only an imaginary
math function, a crutch to make the math easier. One amp at 90 degrees
exists in your head, not in the real world..
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2699. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 20:01:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c0trv4cmu1@hercules.btinternet.com>
Source record: 99770

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:4em430lp34nqog05mm8ak6vu6j94nj2lct@4ax.com...
> On Tue, 17 Feb 2004 17:47:39 -0000, "Richard"
> <nearlynews_email@ntlworld.com> wrote:
>
> >I'm wondering about the spacings, A, B, C, and D.
>
> Hi Richard,
>
> You should be thinking more of the tensile failure of the brick mortar
> leveraged by the moment of the load above. Chimneys are very strong
> to compressive loads, and as brittle as candy to torsion.
>
> The upshot of this is that on a windy night you may find the chimney
> in your bed.
>
> 73's
> Richard Clark, KB7QHC

==========

Better get in a stock of viagra.

Brickwork is weakest when under a tensile stress. So the chimney brickwork
is most likely to fail under tension due to sideways thrust of the wind.

Placing the chimney under torsion causes only a horizontal shear force on
the brickwork to which it is more able to resist.

Reg.

2700. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 20:02:50 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4032731F.D918EB7F@shaw.ca>
Source record: 99771

Richard wrote:

> I've no real experience of putting up antennas on the chimney of a house.
>
> Obviously, I must not overload the chimney breast.
>
> I'm thinking about putting up the following:
>
> ______ Discone
> / | \
> __ / || \
> A |
> __ ___|x___ 5 ele.2m yagi
> |
> B | |
> __ |x| 5 ele. marine yagi
> | |
> C |
> | |
> __ |x| 5 ele. FM yagi.
> | |
> D |
> |
> __ |
> / \ Rotator
> /__\
> |
> | ______
> | | | Chimney
> | | |
> | |
>
> I'm wondering about the spacings, A, B, C, and D.
>
> A, spacing between bottom of the discone and the boom of 2 m yagi.
>
> B, spacing between boom of 2m yagi and boom of marine band yagi.
>
> C, spacing between boom of marine band yagi and boom of FM yagi.
>
> D, spacing between boom of FM yago and top of rotator.
>
> As for the mast, I'm thinking what about 1.5" steel tube.
>

> As for rotator. No idea what model I'd need.
>
> Any thoughts? Am I trying to be too ambitious? I could leave out the
> marine yagi if I had to.
>
> Thanks.
>
> Rich.

Check to make sure there are no ordnances against attaching structures
to chimneys. You would do better with a tripod mount on the roof.

Hope this helps...

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2701. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 20:25:25 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <c0ttbl$s4i$1@mail.specsol.com>
Source record: 99773

Reg Edwards <g4fgq.regp@zzzbtinternet.com> wrote:

> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:4em430lp34nqog05mm8ak6vu6j94nj2lct@4ax.com...
> > On Tue, 17 Feb 2004 17:47:39 -0000, "Richard"
> > <nearlynews_email@ntlworld.com> wrote:
> >
> > >I'm wondering about the spacings, A, B, C, and D.
> >
> > Hi Richard,
> >
> > You should be thinking more of the tensile failure of the brick mortar
> > leveraged by the moment of the load above. Chimneys are very strong
> > to compressive loads, and as brittle as candy to torsion.
> >
> > The upshot of this is that on a windy night you may find the chimney
> > in your bed.
> >
> > 73's
> > Richard Clark, KB7QHC

> ========================

> Better get in a stock of viagra.

> Brickwork is weakest when under a tensile stress. So the chimney brickwork
> is most likely to fail under tension due to sideways thrust of the wind.

> Placing the chimney under torsion causes only a horizontal shear force on
> the brickwork to which it is more able to resist.
> ----
> Reg.

All this presupposes the chimney is brick.

Mine is cast concrete and has had a big TV antenna on it for years and
this is a high wind area.

There is a smoke and soot problem and I only run the fireplace a few times
a year. I wouldn't put an expensive ham antenna (or a rotor) up there.

--
Jim Pennino

Remove -spam-sux to reply.

2702. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 20:28:32 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40327b4a_3@news1.prserv.net>
Source record: 99774

And how does that help track a non - (frequency) - stationary signal? And 150 MHz two-way has nit to do with downcoming horizontally polarized sky waves, I theenk.

By the way, Terman and Pettit got themselves into a heap o' grief with that simplistic approach. I've sent them on to the archives now, but there is a large volume of correspondence in Proc. IRE back about '47 about how that doesn't work.
--
Crazy George
Remove N O and S P A M imbedded in return address
"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:20938-40324EE2-468@storefull-3252.bay.webtv.net...
> Crazy George wrote:
> "I think Steve would be interested in hearing a methodology for DFing a
> non-stationary signal, as would I."
>
> Terman says on page 1050 of his 1955 edition:
> "The errors in bearing caused by downcoming horizontally polarized sky
> waves can be eliminated by replacing the loop antenna with an Adcock
> antenna, which in its simplest form consists of two spaced vertical
> antennas, connected as shown in Fig. 26-28."
>
> The ARRL Antenna book also gives information and says construction is
> not critical.
>
> Best regards, Richard Harrison, KB5WZI
>

2703. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 20:35:45 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40327ded_4@news1.prserv.net>
Source record: 99775

"Ralph Mowery" <rmowery@ctc.net> wrote in message
news:-cSdnWlv39KBoq3dRVn-jw@ctc.net...
> I have had to take many tests where I work for various things. One was on
> refrigeration systems as required by the government. The company had
about
> 20 of us in a cram session for a day and the next day we took the test.
The
> instructor made one statement the stuck with me. He said "that many of us
> may know more about refrigeration than I do but we are going to learn the
> answers the government wants". I know almost nothing about refrigeration,
> but I did learn the rules for releasing freon in the atmosphere.
>
>

You call it nitrogen and do it quickly when no one is looking, right?
--
Crazy George
Remove N O and S P A M imbedded in return address

2704. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 20:43:24 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40327CEC.21F6E922@uci.edu>
Source record: 99776

Cecil Moore wrote:

> That is what has been confusing you all along.

No confusion here, Cecil. Wouldn't such a statement be considered by most to be ad hominem, i.e. about the person, rather than about the subject being discussed? You accuse people of doing it to you all the time, but never seem to be able to fess up to it yourself.

> Once
> again, AC current changes direction every 1/2 cycle and the sign of
> the cos(phase) function determines which of two, and only two directions,
> it flows.

Why do you keeps saying the sign of the _cosine_ of the phase determines instantaneous direction? That's no more true than saying the sign of the sine of the phase determines the instaneous direction. It could in fact be completely untrue.

> Current is NOT a vector. Current is a phasor with two and only
> two directions in a wire.

According to definition, current is a rate. That should be obvious from it's units of coulombs per second. Alternating current can be expressed as a rotating vector, or phasor.

> Your phasor current "phase" is only an imaginary
> math function, a crutch to make the math easier.

Are you talking to me? Helloooo.

> One amp at 90 degrees
> exists in your head, not in the real world..

Methinks that conversation must exist only in your head, Cecil.

73, and good health de Jim AC6XG

2705. Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 21:09:08 UTC
From: bb <bb@private.com>
Message-ID: <403282F3.CA0E80E3@private.com>
Source record: 99781

First... what is phasing of verticals.

My 40 m dipole is only 30' up...would vertical phasing be an improvement?

What would be the dimensions of the vertical and spacing distance?

2706. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 21:10:17 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <YqvYb.3034$t16.2557719@newssvr28.news.prodigy.com>
Source record: 99777

"Vito" <vito@crosslink.net> wrote in message
news:40322c6b$0$32013@dingus.crosslink.net...
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:2me0305u8a3svas5d9dkolson1fq2kd29v@4ax.com...
> > On Sun, 15 Feb 2004 21:03:50 -0600, "Drink" <drink@gnt.net> wrote:
> >
> > > I've been studying for my Extra Class .....
> >
> > Hi OM,
> >
> > Relieve the stress and just take the test. You don't need a perfect
> > score to pass.
> >
> > If you don't pass, take it again.....
>
> Try a practice exam at www.qrz.com.
>
> Understanding the answers is all well and good but more and more the
"right"
> answer depends on FCC and/or ARRL fiat rather than physics. Nor is that
> unreasonable. Why require theory if everybody is an appliance ham anyway?
> The times, they are a changing and nobody can stop it.
>
> 73, K3DWW

Well the hams may end up being "appliance operators" but they will each be responsible for the quality of signal that there station puts out. The FCC will not accept the excuse that one doesn't know how to address problems with their station signal whether or not the material remains on the test. They will continue to require that you comply with the rules and thus it's a good idea to actually learn and understand the material.

Dee D. Flint, N8UZE

2707. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 21:20:27 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040217162027.22686.00001849@mb-m19.aol.com>
Source record: 99778

>
>It's hard to beat a Yagi for gain, performance, durability, weight, cost,
>ability to match, etc.
>
>73, Jack K9CUN
>
>

Properly designed and built Quad will beat Yagi in all the above mentioned "parameters". Little more cumbersome to raise on a tower with guy wires, but easily doable.

Yuri, K3BU.us

2708. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 21:52:31 UTC
From: w9juc@comcast.net
Message-ID: <f4306045.0402171352.65b439d1@posting.google.com>
Source record: 99779

Hi Dave,

RE: http://www.gopherlink.com/DeltaXray/3x3-Graph-Compare-Detailed.html

Apparently you did not click on the image (page listed above) for the SWR/Bandwidth graph to zoom the image and scroll to the bottom chart which shows actual performance SWR @ Fr = 1:1 Z=47R Bandwidth = 680 khz @ 10 meters.

Actual and modeling parameters are shown on the web page listed above.

The following page are photographs of the monoband 10 meter version

http://www.gopherlink.com/DeltaXray/hfantenn.htm

However the Yagi and the Quad require impedance transformations ï¿½ the stated modeling parameters specify "series current source" for all three modeled antennas.

73,

Rich

W9JUC (since 1954)

Dave Shrader <david.shrader@comcast.net> wrote in message news:<xaJXb.39183$jk2.86580@attbi_s53>...
> These images appear to be for Maximum Gain. Look at the VSWR curves. You
> will need a tuner to get today's rigs to load any of these antennas.
>
> Rich wrote:
>
> > The following web page shows azimuth and elevation projection
> > comparisons for a 2 element quad with quarter wave spacing vs. 3
> > element Yagi vs. 2 element delta loop driven array (both elements
> > driven.)
> >
> > (A larger image is available by clicking on the smaller images.)
> >
> > http://www.gopherlink.com/DeltaXray/3x3-Graph-Compare-Detailed.html

2709. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 21:53:10 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c0u2g3$45vd$1@news3.infoave.net>
Source record: 99780

How can you be so elitist as to expect anyone to learn anything, is it not sufficient that they want it?

It's simply is not fair for someone to obtain somethng through effort, if you have it and I want it, I deserve it with no additional effort on my part.

It is Kenwood, Icom or whatever's responsibility that my station works correctly. I can't be bothered by some stupid rules or code as in inhibits my right to everything.

Member "No code, No test, Know Nothing International"

"Dee D. Flint" <deehays@qix.net> wrote in message
news:YqvYb.3034$t16.2557719@newssvr28.news.prodigy.com...
> Well the hams may end up being "appliance operators" but they will each be
> responsible for the quality of signal that there station puts out. The
FCC
> will not accept the excuse that one doesn't know how to address problems
> with their station signal whether or not the material remains on the test.
> They will continue to require that you comply with the rules and thus it's
a
> good idea to actually learn and understand the material.
>
> Dee D. Flint, N8UZE
>

2710. G5RV or 35 ft center fed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 21:55:57 UTC
From: GJS917 <gjs917@yahoo.com>
Message-ID: <N5wYb.53208$IF1.49797@nwrdny03.gnilink.net>
Source record: 99782

I have an 80x100 foot lot. On a diagonal between trees I could put up a flattop of 102 feet. Should I put up a G5RV or bend the wire at each end and go for a 135 foot center fed? My rig is a TS-440S with a built in tuner. What type of feed do you recommend. Some say you get the least loss with twin lead. Should I use 300 or 450 ohm? Then should I put an air choke at the end of the run and tie the other end of the air choke directly into the rig's auto tuner? Also should I install a lightning arrestor at the point where the feed enters the house (I'll probably drop the feed to the roof and bring it into the attic. The shack is in a second floor bedroom.) I am presently studying for my license so any advice would be greatly appreciated.

Thanks,

Gene

2711. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 22:26:57 UTC
From: Dave <noone@nowhere.com>
Message-ID: <b6mdnePeb8unCK_dRVn-gg@crocker.com>
Source record: 99783

"bb" <bb@private.com> wrote in message news:403282F3.CA0E80E3@private.com...
> First... what is phasing of verticals.
>
> My 40 m dipole is only 30' up...would vertical phasing be an
> improvement?
>
> What would be the dimensions of the vertical and spacing distance?
>

probably. depends on how tall you can make verticals and if you can put enough radials under them. a square array of 4 vertical's 1/4 wavelength on a side can outperform a 2 element beam at 120' at some times on some paths, and most of the time on a few long paths in my experience. phasing 2 inverted L's can perform as well as and sometimes better than a single inverted V. just remember, the verticals probably won't be better close in, so when you compare them do it with stations that are a good distance away.

2712. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 22:36:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <po55301jr33o9qa24sgd2pvkjalirt33ul@4ax.com>
Source record: 99784

On Tue, 17 Feb 2004 20:01:40 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>sideways thrust of the wind.
=
>Placing the chimney under torsion

2713. Re: Putting antennas on house chimneys

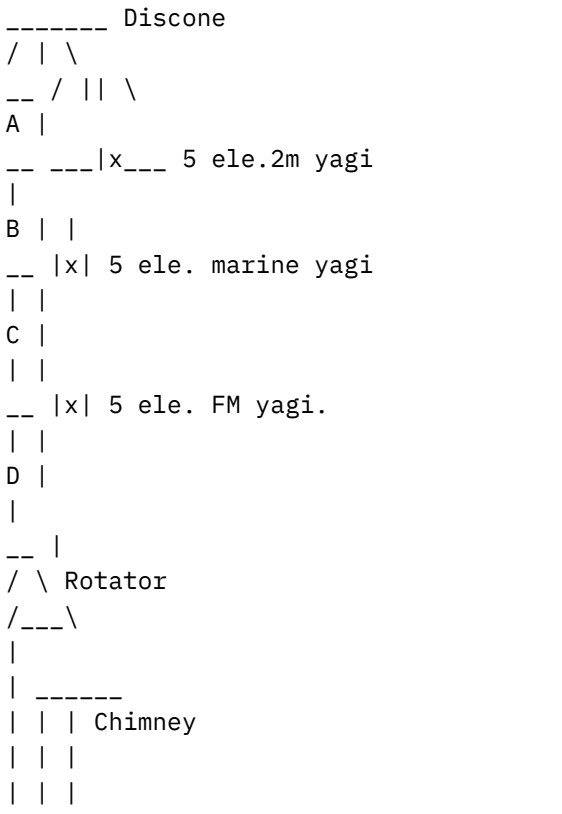
Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 22:41:16 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0u589$1c1mtr$1@ID-150848.news.uni-berlin.de>
Source record: 99785

[This post is sent again in plain text (cannot avoid that). I've
used a monospaced font type, "courier new", font size, "smaller"
to view the page on my PC. To correctly view the ASCII art, you
ay need to adjust your viewing font (Tools>Options>Read>Fonts)
to: Proportional Font: "Courier new" Font size: "smaller".]

I've no real experience of putting up antennas on the chimney
of a house.

Obviously, I must not overload the chimney breast.

I'm thinking about putting up the following:



I'm wondering about the spacings, A, B, C, and D.

A, spacing between bottom of the discone and the boom of 2 m yagi.

B, spacing between boom of 2m yagi and boom of marine band yagi.

C, spacing between boom of marine band yagi and boom of FM yagi.

D, spacing between boom of FM yago and top of rotator.

As for the mast, I'm thinking what about 1.5" steel tube.

As for rotator. No idea what model I'd need.

Any thoughts? Am I trying to be too ambitious? I could
leave out the marine yagi if I had to.

Thanks.

Rich.

2714. Re: G5RV or 35 ft center fed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 22:55:39 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <40329bed$1_2@news.vo.lu>
Source record: 99786

"GJS917" <gjs917@yahoo.com> wrote in message
news:N5wYb.53208$IF1.49797@nwrdny03.gnilink.net...
> I have an 80x100 foot lot. On a diagonal between trees I could put up a
> flattop of 102 feet. Should I put up a G5RV or bend the wire at each end
and
> go for a 135 foot center fed? My rig is a TS-440S with a built in tuner.
> What type of feed do you recommend. Some say you get the least loss with
> twin lead. Should I use 300 or 450 ohm?

Hi,

About G5RV, http://www.astrosurf.com/lombry/qsl-g5rv.htm
specially p2 for the matching section. Standard is 300ohm ribbon "windowed"
with a balun 4:1
I used it with a TS-570D with quasi a SWR 1:1 on most non-warc bands.

> Then should I put an air choke at
> the end of the run and tie the other end of the air choke directly into
the
> rig's auto tuner? Also should I install a lightning arrestor at the point
> where the feed enters the house (I'll probably drop the feed to the roof
and

About lightnings,
http://www.astrosurf.com/lombry/qsl-lightning-protection.htm
Your need an arrestor and also a serious ground. See my article (with sounds
!).

Thierry, ON4SKY

> bring it into the attic. The shack is in a second floor bedroom.) I am
> presently studying for my license so any advice would be greatly
> appreciated.
>
>
>
> Thanks,
>
> Gene
>
>
>

2715. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 22:58:47 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <40329ca9$1_1@news.vo.lu>
Source record: 99787

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:4em430lp34nqog05mm8ak6vu6j94nj2lct@4ax.com...
> On Tue, 17 Feb 2004 17:47:39 -0000, "Richard"
> <nearlynews_email@ntlworld.com> wrote:
>
> >I'm wondering about the spacings, A, B, C, and D.
>
> Hi Richard,
>
> You should be thinking more of the tensile failure of the brick mortar
> leveraged by the moment of the load above. Chimneys are very strong
> to compressive loads, and as brittle as candy to torsion.

Hi,

I confirmed too that you will experiment problems with the maconnery.
I attached the end of a G5RV to my chimney, fine, no problem for years, but
the vertical damaged the bricks and the cement udner high wind.
A small roof pylon (2-3m high) is by far preferable and more secure.

Thierry
ON4SKY
http://www.astrosurf.com/lombry/menu-qsl.htm

>
> The upshot of this is that on a windy night you may find the chimney
> in your bed.
>
> 73's
> Richard Clark, KB7QHC

2716. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 23:07:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40329fa8_4@corp.newsgroups.com>
Source record: 99788

Jim Kelley wrote:

> Cecil Moore wrote:
>>That is what has been confusing you all along.
>
> No confusion here, Cecil. Wouldn't such a statement be considered by
> most to be ad hominem, i.e. about the person, rather than about the
> subject being discussed? You accuse people of doing it to you all the
> time, but never seem to be able to fess up to it yourself.

It's not ad hominem if it's true, Jim. You have demonstrated a certain level of confusion about the direction of AC current travel (of which there are only two) in a wire. In a single source, single load configuration, instantaneous AC current is either flowing toward the load or toward the source. For a phasor current in a wire, phase is an imaginary concept which exists only in your mind's math model. It is simply an artifact of the math model which doesn't exist in reality. That's why I keep harping on the seduction by the math models. Ask yourself, exactly where does that one amp at 90 degrees exist and exactly how can you measure it?

> Why do you keeps saying the sign of the _cosine_ of the phase determines
> instantaneous direction?

Because it's true, Jim. Given that the reference is the source at zero degrees, which indicates a forward direction for current flow, all other current phases are referenced to the source. i=I*cos(phase_angle) If the cosine of that phase angle is positive, by convention, the instantaneous AC current is flowing toward the load. If the cosine of that phase angle is negative, by convention, the instantaneous AC current is flowing toward the source.

> According to definition, current is a rate. That should be obvious from
> it's units of coulombs per second. Alternating current can be expressed
> as a rotating vector, or phasor.

Yes, but it goes in only one of two directions at a time. That is what you are missing. There are only two directions possible in a wire. The direction of travel in that wire is the sign of cos(phase_angle) referenced to the source. i*cos(20) and i*cos(60) are traveling in *EXACTLY* the same direction. Until you comprehend that fact of physics, you will not understand the superposition of forward current and reflected current, which is the original point of confusion. When you take time to understand the basics, and comprehend the difference between a vector and a phasor, then we can return to the original argument.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2717. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 23:13:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4032a120_4@corp.newsgroups.com>
Source record: 99789

bb wrote:
> First... what is phasing of verticals.

Essentially the same as phasing of horizontal elements. If you turn a 40m horizontal Yagi on it's side and bury half of it under a good ground plane, you have a vertical beam.

> My 40 m dipole is only 30' up...would vertical phasing be an
> improvement?

Maybe, maybe not. At my QTH, the vertical noise is 2 s-units higher than the horizontal noise rendering any vertical antenna virtually unusable. No vertical that I have ever tried could overcome that -10 dB disadvantage. But your QTH could be entirely different from mine. It is possible, but not likely, that your vertical noise is lower than your horizontal noise.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2718. Re: G5RV or 35 ft center fed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 23:42:15 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4032A6D7.53423894@cwis.net>
Source record: 99790

Gene,
It depends on what bands you want to be able to use. For all
bands (almost), either the G5RV or the 135 foot doublet fed with
450 ohm ladder line should work okay. The tuner in the '440
will
probably not have enough range to make the 135 foot antenna work
on all bands, maybe. A more capable (wider range) tuner should
be
able to with no problems. One way around that is by the length
of
feed line you use, it can make a big difference. It's also
possible
to use coax, but with the same provision about length and there
will be some additional unknown amount of loss.
The G5RV is limited to the bands it will conveniently tune,
more
or less forget the WARC bands.
Good luck with the license...
'Doc

2719. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 23:59:21 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4032AAD9.DC056EDC@uci.edu>
Source record: 99792

Cecil Moore wrote:

> You have demonstrated a certain
> level of confusion about the direction of AC current travel (of which
> there are only two) in a wire.

Any confusion in this thread must be on your end. It began when you claimed more current goes into one end of an inductor than comes out the other end. That notion is utterly without merit. You may continue to try to defend your notion if you like, but please don't do it by insulting the intelligence of your correspondents.

> > According to definition, current is a rate. That should be obvious from
> > it's units of coulombs per second.

> Yes, but it goes in only one of two directions at a time.

There are no "buts"; no exceptions to the definition of current.

> That is what you
> are missing.

Saying I am "missing" something does not make it true. Repeatedly explaining how alternating current alternates does nothing but illustrate what a low level of understanding you have for the point being made by your correspondent. Why not just ask what I mean?

73, Jim AC6XG

2720. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-17 23:59:28 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4032AAE0.1ED9EE7A@uci.edu>
Source record: 99793

Cecil Moore wrote:
>
> Jim Kelley wrote:
>
> > Cecil Moore wrote:
> >>That is what has been confusing you all along.
> >
> > No confusion here, Cecil. Wouldn't such a statement be considered by
> > most to be ad hominem, i.e. about the person, rather than about the
> > subject being discussed? You accuse people of doing it to you all the
> > time, but never seem to be able to fess up to it yourself.
>
> It's not ad hominem if it's true, Jim. You have demonstrated a certain
> level of confusion about the direction of AC current travel (of which
> there are only two) in a wire. In a single source, single load configuration,
> instantaneous AC current is either flowing toward the load or toward the source.
> For a phasor current in a wire, phase is an imaginary concept which exists only
> in your mind's math model. It is simply an artifact of the math model which doesn't
> exist in reality. That's why I keep harping on the seduction by the math models.
> Ask yourself, exactly where does that one amp at 90 degrees exist and exactly how
> can you measure it?
>
> > Why do you keeps saying the sign of the _cosine_ of the phase determines
> > instantaneous direction?
>
> Because it's true, Jim. Given that the reference is the source at zero
> degrees, which indicates a forward direction for current flow, all other
> current phases are referenced to the source. i=I*cos(phase_angle) If the
> cosine of that phase angle is positive, by convention, the instantaneous
> AC current is flowing toward the load. If the cosine of that phase angle
> is negative, by convention, the instantaneous AC current is flowing toward
> the source.
>
> > According to definition, current is a rate. That should be obvious from
> > it's units of coulombs per second. Alternating current can be expressed
> > as a rotating vector, or phasor.
>
> Yes, but it goes in only one of two directions at a time. That is what you
> are missing. There are only two directions possible in a wire. The direction
> of travel in that wire is the sign of cos(phase_angle) referenced to the
> source. i*cos(20) and i*cos(60) are traveling in *EXACTLY* the same direction.
> Until you comprehend that fact of physics, you will not understand the
> superposition of forward current and reflected current, which is the
> original point of confusion. When you take time to understand the basics,

> and comprehend the difference between a vector and a phasor, then we can
> return to the original argument.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2721. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 00:06:01 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <vfadnVOcebKhMa_dRVn-hw@comcast.com>
Source record: 99791

I wouldn't do it.
"bunnydawg" <r.heenan@sympatico.ca> wrote in message
news:GQsYb.4981$d34.764380@news20.bellglobal.com...
> I'm wondering if your chimney will handle the weight ?
> Robert
>
> "Richard" <nearlynews_email@ntlworld.com> wrote in message
> news:c0tk22$1audle$1@ID-150848.news.uni-berlin.de...
> > I've no real experience of putting up antennas on the chimney of a
house.
> >
> > Obviously, I must not overload the chimney breast.
> >
> > I'm thinking about putting up the following:
> >
> >
> > ______ Discone
> > / | \
> > __ / || \
> > A |
> > __ ___|x___ 5 ele.2m yagi
> > |
> > B | |
> > __ |x| 5 ele. marine yagi
> > | |
> > C |
> > | |
> > __ |x| 5 ele. FM yagi.
> > | |
> > D |
> > |
> > __ |
> > / \ Rotator
> > /__\
> > |
> > | ______
> > | | | Chimney
> > | | |
> > | |
> >
> > I'm wondering about the spacings, A, B, C, and D.
> >
> > A, spacing between bottom of the discone and the boom of 2 m yagi.
> >

> > B, spacing between boom of 2m yagi and boom of marine band yagi.
> >
> > C, spacing between boom of marine band yagi and boom of FM yagi.
> >
> > D, spacing between boom of FM yago and top of rotator.
> >
> > As for the mast, I'm thinking what about 1.5" steel tube.
> >
> > As for rotator. No idea what model I'd need.
> >
> > Any thoughts? Am I trying to be too ambitious? I could leave out the
> > marine yagi if I had to.
> >
> > Thanks.
> >
> > Rich.
> >
> >
>
>

2722. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 00:16:36 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c0ub0g$j1e$1@newshost.mot.com>
Source record: 99810

Actually, if there is an *easy* way, I'd sure like to know!

I started my DF'ing in the Navy in the late 60's, so I'm no slouch.
This is a very sticky problem; few ways to do this. All phase systems
(Doppler, TDOA) require the signal to be well centered in the IF and a well
behaved IF to boot. The amplitude systems (beam, single / dual cardioid)
are better for this, but the sweep-width of this signal makes the beam less
effective due to the change in gain as you get off the design freq.

If I had the time, I'd modify a wide band FM receiver (like a broadcast
receiver 88-108) with a *really* aggressive AFC so it would follow the bogie
along. Then a TDOA should work. Actually any would be better with this
receiver, but I would have to do a little characterization across the
expected freq range first.

I think *any antenna* and a spectrum analyzer watching signal strength is
the best bet...already done some of that. The biggest problem is that it
is most active when we have the least time to hunt.
Steve

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
news:403244ed_3@news1.prserv.net...
> Ed:
>
> I think Steve would be interested in hearing a methodology for DFing a
> non-stationary signal, as would I. I have tried to track one of these
spurs
> with a receiver while simultaneously attempting to get a bearing, and gave
> up. The Doppler DF systems need it in the passband and frequency stable
for
> at least one "revolution" of the virtual antenna, which doesn't happen, so
> let's hear what works.
>
> --
> Crazy George
> Remove N O and S P A M imbedded in return address
>
> "Ed Price" <edprice@cox.net> wrote in message
> news:mXnYb.502$C21.147@fed1read07...
> >
> > "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> > news:c0quphram1@newshost.mot.com...
> > >
> > > "Ed Price" <edprice@cox.net> wrote in message
> > > news:jaoXb.72863$fD.59039@fed1read02...

> > > > THAT
> > > > "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> > > > news:c0ji6c$ee7$1@newshost.mot.com...
> > > > > Diathermy was mentioned in the longwire exposure thread and made
me
> > > think
> > > > of
> > > > > this long standing problem here in northern IL..
> > > > >
> > > > > For some years now, there has been interference on the local 2M
> > repeater
> > > > > (145.41) which sounds just like the diathermy I used to hear on
10M
> > long
> > > > > ago. [snip]
> > > > > Steve N, K,9;d, c. i My email has no u's.
> > >
> > > > [snip] If the RF source is quite close to the repeater, maybe you
are
> > > > seeing an image response to the 5th harmonic.
> > > > wb6wsn
> > >
> > > Not an image. Spec analizer and many other receivers hear it, as
> well
> > > as other repeaters.
> > >
> > > Steve
> >
> >
> > Well, if you have that much time to observe the offending signal, start
> > DF'ing it.
> >
> > Ed
> > wb6wsn
> >
>
>

2723. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 00:17:50 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c0ub2q$j1l$1@newshost.mot.com>
Source record: 99811

Not sure how this applies. It is non-stationary in FREQUENCY that is the problem.

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:20938-40324EE2-468@storefull-3252.bay.webtv.net...
> Crazy George wrote:
> "I think Steve would be interested in hearing a methodology for DFing a
> non-stationary signal, as would I."
>
> Terman says on page 1050 of his 1955 edition:
> "The errors in bearing caused by downcoming horizontally polarized sky
> waves can be eliminated by replacing the loop antenna with an Adcock
> antenna, which in its simplest form consists of two spaced vertical
> antennas, connected as shown in Fig. 26-28."
>
> The ARRL Antenna book also gives information and says construction is
> not critical.
>
> Best regards, Richard Harrison, KB5WZI
>

2724. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 00:43:57 UTC
From: w4udx@bellsouth.net
Message-ID: <VuyYb.16229$fE4.8245@bignews5.bellsouth.net>
Source record: 99794

Buy a real 10M mobile antenna and forgeddaboudit ...

"Ken" <cprstn54zz@att.net> wrote in message
news:9g823099nvgm978hos4naa5o21aduguegs@4ax.com...
> I have an old mag mount RS CB antenna with a 24" (approx.) telescopic
> whip. It is fitted with an integral audio cable (as the feedline)
> terminating in (what else?) a male RCA jack that plugs into the CB's
> antenna jack. The CB is rated at 5 watts FM.
>
> The whip can be shortened quite a bit. Is there any reason it
> wouldn't resonate on 10M?
>
> Audio cable ain't RG-8/U, but is it enough to handle 30 watts FM on
> 10M?
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

2725. johnson KW MATCHBOX FA FA FA

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 00:55:49 UTC
From: kf4toh@aol.com
Message-ID: <20040217195549.21920.00002095@mb-m14.aol.com>
Source record: 99795

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3079109067

2726. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 00:56:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t5d530lqfrpu3hvn4q4nlj57ghcalgsua7@4ax.com>
Source record: 99796

On Tue, 17 Feb 2004 22:41:16 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:
>[This post is sent again in plain text (cannot avoid that). I've
>used a monospaced font type, "courier new", font size, "smaller"
>to view the page on my PC. To correctly view the ASCII art, you
>ay need to adjust your viewing font (Tools>Options>Read>Fonts)
>to: Proportional Font: "Courier new" Font size: "smaller".]
>

Hi Richard,

It may look good to you, but for many it remains sloppy.

The convention of ASCII-Doodles is to employ fixed pitch fonts. This
is available to everyone.

>A, spacing between bottom of the discone and the boom of 2 m yagi.
0.5M to 1M
>B, spacing between boom of 2m yagi and boom of marine band yagi.
0.5M to 1M
>C, spacing between boom of marine band yagi and boom of FM yagi.
0.5M to 1M
>D, spacing between boom of FM yago and top of rotator.
0.5M

Proximity is more likely to disturb the depth of nulls than to rob
gain. Proximity will also pull resonant frequency. Recommendations
will run the gamut where a purist would demand 1 to 5 wavelengths.
Practice often accepts much less when offset by sweat-equity (more
tuning and trimming on your part).

Don't forget guy wires to preserve the mortar (its not the brick that
breaks); and don't forget to break up the guys to prevent their
resonance effects (or use non-conductive guys).

73's
Richard Clark, KB7QHC

2727. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 01:04:25 UTC
From: kashe@rahul.net
Message-ID: <lge5305fdikp8pm9rcodtfskjhknmbbc6l@4ax.com>
Source record: 99797

On Tue, 17 Feb 2004 03:56:19 GMT, "Bruce D. Meyer"
>> Jim NN7K (ex radioman-- Southern, and UNION
>> Pacific Railroads)
>>

Hey, Jim, I hope you got to retire from UP. I got outsourced,
then downsized, by SP.

Ken

2728. Re: G5RV or 35 ft center fed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 01:25:58 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <GazYb.8069$tL3.2195@newsread1.news.pas.earthlink.net>
Source record: 99798

Hi Gene -

You don't say what bands you plan to operate; and that is an important consideration. But you might include a W9INN MPD-5C dipole among your candidates. It is resonant on 80, 40, 20, 15 and 10, and is 87' long. It's coax fed, not fussy about feedline length, and would not require a separate antenna tuner.

As to lightning protection, it's always a good thing, and is essential if you
live in an area with frequent lightning. (There have been no strikes in our neighborhood in the last 25 years, thank goodness.) But if it's convenient, think about setting up so you can DISCONNECT your feedline before it enters the house, during storms. (Lightning is not very smart, and doesn't always know what it's supposed to do when it encounters little obstacles like lightning arrestors; so sometimes it ignores them.)

73, Ed

"GJS917" <gjs917@yahoo.com> wrote in message
news:N5wYb.53208$IF1.49797@nwrdny03.gnilink.net...
> I have an 80x100 foot lot. On a diagonal between trees I could put up a
> flattop of 102 feet. Should I put up a G5RV or bend the wire at each end
and
> go for a 135 foot center fed? My rig is a TS-440S with a built in tuner.
> What type of feed do you recommend. Some say you get the least loss with
> twin lead. Should I use 300 or 450 ohm? Then should I put an air choke
at
> the end of the run and tie the other end of the air choke directly into
the
> rig's auto tuner? Also should I install a lightning arrestor at the point
> where the feed enters the house (I'll probably drop the feed to the roof
and
> bring it into the attic. The shack is in a second floor bedroom.) I am
> presently studying for my license so any advice would be greatly
> appreciated.
>
>
>
> Thanks,
>
> Gene
>
>
>

2729. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 02:31:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4032cf70_1@corp.newsgroups.com>
Source record: 99799

Jim Kelley wrote:
> Any confusion in this thread must be on your end.

No, you have demonstrated confusion over and over and are doing it again
in the following quote:

> It began when you
> claimed more current goes into one end of an inductor than comes out the
> other end. That notion is utterly without merit.

Can more current go into one end of a transmission line than comes out
the other? Of course it can. Current varies up and down a transmission
line with reflections. It can be one amp at zero degrees at one point and
half an amp at 180 degrees at another point. Therefore, it is possible to
have one amp of current at the bottom of a coil and half an amp at the top
of a coil, just like it is possible in a transmission line. It is obviously
possible for one amp of instantaneous current to be flowing into a transmission
line while half an amp is flowing into the same transmission line in the opposite
direction at the other end. It appears that you don't comprehend distributed
networks at all and that's a pity.

Hint#1: in a distributed network, current can be any magnitude flowing in any
direction at different points. Exactly the same thing holds true for a coil
installed in a distributed network.

Hint#2: Current at a current loop may be one amp while 1/4WL away, the current
is always zero. How you can say that is without merit is beyond comprehension.

>>Yes, but it goes in only one of two directions at a time.
>
> There are no "buts"; no exceptions to the definition of current.

Yes, and it's time that you learned that fact. There are two and only
two possible directions of current in a wire. You seem to think there
are an infinite number of directions in a wire like there are in free
space for light waves. Current in a wire is ***NOT*** a vector. Current
in a wire can have only two directions.

> Saying I am "missing" something does not make it true.

Denying that you are missing something makes you omniscient only in
your own mind, not in reality.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!

------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2730. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 03:19:20 UTC
From: Drink <drink@gnt.net>
Message-ID: <c0uljr$2pb$1@news.utelfla.com>
Source record: 99800

Thanks for the advice gents. I really appreciate it. Didn't quite expect
some of them but I guess that's what they call "intellectual diversity".
Haha! Anyway, I guess I'll take a median approach. 1) Get the 8th edition
since Advanced Class material has been incorporated and, 2) focus on passing
the test without rote memorization of the question pool. I'm sure I'll
learn a good deal before the test. But, I'm not going to learn Everything.
So, I guess I'll just keep on learning after Extra and focus on what I think
is important, challenging or simply of interest.
Cool. I think I just had a breakthrough and you guys were part of it:)
I'm getting closer. Thanks to all.
o_o_o_o
Best Regards, /| ,[_____],
Jim, WP3JQ |���L --O|||||||O-
()_)�()_) ������)_)
EM60qk 30.447439N 086.628959W
"Dee D. Flint" <deehays@qix.net> wrote in message
news:CacYb.2894$t16.2394482@newssvr28.news.prodigy.com...
>
> "Drink" <drink@gnt.net> wrote in message
> news:c0pbu1$o4j$1@news.utelfla.com...
> > I've been studying for my Extra Class for a pretty long time now
> (Sheesh!
> > A couple YEARS) and understand that the question pool has changed. No,
> I'm
> > not interested in a question pool/cheat sheet. I want to make sure I
> > understand all the subject matter and pass the test. I have the "ARRL
> Extra
> > Class License Manual" published in 2000 and want to continue studying
with
> > it. Here's my question.
> > Since the question pool has changed, has the material changed? Should
I
> > go buy the 8th printing to make sure I have a manual that focuses on
newer
> > requirements?
> > o_o_o_o
> > Best Regards, /| ,[_____],
> > Jim, WP3JQ |���L --O|||||||O-
> > ()_)�()_) ������)_)
> > EM60qk 30.447439N 086.628959W
> >
> >
>

> Try the practice exams at sites like QRZ.com and I think eham has them
also.
>
> However, the license manual published in 2000 is seriously out of date.
> Since that time, the material has been dramatically expanded. The
material
> from the old Advanced Class licensed was added into the Extra exam and
there
> have also been some rule changes. Most of that Advanced Class material
was
> NOT covered in the guide available in 2000. You've missed the window
where
> the Extra exam had not yet been upgraded to include that material.
>
> So try the practice exams and see where you stand. The odds are that you
> will need to study the 8th edition to successfully prepare for the test.
>
> Dee D. Flint, N8UZE
>

2731. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 03:55:19 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040217225519.19241.00001783@mb-m26.aol.com>
Source record: 99801

Jim Kelley proclaimed:

>> It began when you
>> claimed more current goes into one end of an inductor than comes out the
>> other end. That notion is utterly without merit.
>

Aaaah, Flat Earth Society demonstrating their "knowledge".
Look at www.K3BU.us at pictures of RF ammeters SHOWING reality.
Not good enough? Keep harping, the eggs on your faces are getting bigger and
bigger.

Yuri

2732. Re: johnson KW MATCHBOX FA FA FA

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 04:01:01 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4032E37D.D3F94166@cwis.net>
Source record: 99802

kf4toh wrote:
>
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3079109067

Up to $150+, a 'buy' price of $450. Rediculous.
'Doc

2733. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 04:11:50 UTC
From: richardharrison@webtv.net
Message-ID: <20938-4032E606-588@storefull-3252.bay.webtv.net>
Source record: 99804

Crazy George wrote:
"And how does that help track a non-frequency-stationary signal?"

It senses the line between the transmitter and receiver that contains
the path of the signal
by finding a null along that line.

You have a broadband antenna array in the Adcock which produces a null
simultaneously in horizontal and vertical polarizations.

You can have confidence in the null produced by the Adcock array.
Cross-polarized reception causes no error so long as the antenna remains
balanced regardless of the frequency of reception. The Adcock doesn`t
require self-resonance nor a definite spacing between elements. Its
bandwidth means the balance can be good throughout the 2-meter band if
that`s the design frequency.

The longest dimension can be about 40 inches which makes the antenna a
practical size for the 2-meter band.

Best regards, Richard Harrison, KB5WZI

2734. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 04:13:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4032e753$1_2@corp.newsgroups.com>
Source record: 99803

Yuri Blanarovich wrote:
>> Jim Kelley proclaimed:
>>>It began when you
>>>claimed more current goes into one end of an inductor than comes out the
>>>other end. That notion is utterly without merit.
>>
> Aaaah, Flat Earth Society demonstrating their "knowledge".
> Look at www.K3BU.us at pictures of RF ammeters SHOWING reality.
> Not good enough? Keep harping, the eggs on your faces are getting bigger and
> bigger.

The Flat Earth Society just cannot accept the fact that there can be one
amp of current at one end of the coil and zero amps at the other end, just
like a piece of transmission line. Never mind that the coil is on top of
a mobile antenna and the current at the very top has no place to go.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2735. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 04:39:38 UTC
From: Mike Coslo <mcoslo@enoughalreadyadelphia.net>
Message-ID: <vd2dnWHB48wWca_dRVn-hw@adelphia.com>
Source record: 99805

Vito wrote:
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:2me0305u8a3svas5d9dkolson1fq2kd29v@4ax.com...
>
>>On Sun, 15 Feb 2004 21:03:50 -0600, "Drink" <drink@gnt.net> wrote:
>>
>>
>>> I've been studying for my Extra Class .....
>>
>>Hi OM,
>>
>>Relieve the stress and just take the test. You don't need a perfect
>>score to pass.
>>
>>If you don't pass, take it again.....
>
>
> Try a practice exam at www.qrz.com.
>
> Understanding the answers is all well and good but more and more the "right"
> answer depends on FCC and/or ARRL fiat rather than physics. Nor is that
> unreasonable. Why require theory if everybody is an appliance ham anyway?
> The times, they are a changing and nobody can stop it.

Well, not everybody is an appliance Ham!

- Mike KB3EIA -

2736. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 04:41:27 UTC
From: Mike Coslo <mcoslo@enoughalreadyadelphia.net>
Message-ID: <vd2dnWDB48xlca_dRVn-hw@adelphia.com>
Source record: 99806

W4JLE wrote:

> How can you be so elitist as to expect anyone to learn anything, is it not
> sufficient that they want it?
>
> It's simply is not fair for someone to obtain somethng through effort, if
> you have it and I want it, I deserve it with no additional effort on my
> part.
>
> It is Kenwood, Icom or whatever's responsibility that my station works
> correctly. I can't be bothered by some stupid rules or code as in inhibits
> my right to everything.
>
> Member "No code, No test, Know Nothing International"

Remember, you can't make things simple enough for everyone!

- Mike KB3EIA -

2737. Re: GSM patch antenna (900/1800/1900 MHz) ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 05:15:54 UTC
From: charlie <charlie@earth.planet>
Message-ID: <1035t8enflhs646@corp.supernews.com>
Source record: 99807

Great idea. Thanks !

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:qf6dnTODCs49s6_dRVn-hA@comcast.com...
> Do a web search on " Cellphone Antennas" and you will get a hundred hits.
> You can also go to a local cellphone store and buy an external cellphone
> antenna that is meant to be glued to a car window for maybe $15. The one
> type is a patch antenna in a plastic housing with about 8 feet of coax
> attached.
>
> Tam/WB2TT
> "charlie" <charlie@earth.planet> wrote in message
> news:10349dtth t1u23f@corp.supernews.com...
> > (newbie here)
> >
> > I'm cobbling together a hobby project with a GSM module (1900 MHz). It
> needs
> > a fairly small antenna but I haven't found anything online (digikey.com,
> > mouser.com, emj.com)
> >
> > Would you have a recommendation or design I can use for this purpose?
> >
> > Thanks, Caesar.
> >
> >
>
>

2738. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 05:28:40 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402172128.2845589c@posting.google.com>
Source record: 99808

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4032a120_4@corp.newsgroups.com>...
> bb wrote:
> > First... what is phasing of verticals.
>
> Essentially the same as phasing of horizontal elements. If you turn
> a 40m horizontal Yagi on it's side and bury half of it under a good
> ground plane, you have a vertical beam.
>
> > My 40 m dipole is only 30' up...would vertical phasing be an
> > improvement?

A single vertical would be an improvement over a dipole at 30 ft if
working dx.
Two phased would be even better. If you aren't working dx, but more
close in stations within a few hundred miles, you would be better off
phasing parallel dipoles for gain. A bit of gain nearly equal to a 2
el yagi, and about an average 20 db f/b.
>
> Maybe, maybe not. At my QTH, the vertical noise is 2 s-units higher
> than the horizontal noise rendering any vertical antenna virtually
> unusable. No vertical that I have ever tried could overcome that
> -10 dB disadvantage. But your QTH could be entirely different from
> mine. It is possible, but not likely, that your vertical noise is
> lower than your horizontal noise.

If you are using the vertical for long haul, the increased received
noise is a non issue. The signals will override the noise. IE: the
noise might be 2 s units higher, but the signal increase over the low
dipole will likely be more than that. The vertical still wins overall.
Noise was never an issue when I used mine. The increased signals
always overrode it by a good amount. You didn't see this because you
didn't use yours for long haul. Many times my GP was nearly as quiet
as the dipole. If there is no vertically polarized local noise, there
is little difference between the two. At the moment I have three
antennas on 160. An inv L, a top load vertical, and a Z dipole. All
receive about equal noise as far as S meter reading. The dipole is
just as noisy as the other two on that band. Only my indoor 16 inch
small loop is really quiet...:/ MK

2739. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 06:53:20 UTC
From: mick <chim_chim_chimney@nosmoke.com>
Message-ID: <40330BDE.4303FC53@nosmoke.com>
Source record: 99809

Hi,

One thing I have not seen in previous replies,

If you use a band clamp to attach the mast to the chimney,
water can get behind the metal band and when it freezes, cause
damage to the brick.

In warm weather, the bricks expand and the metal bands
damage the bricks.

I'm not an engineer but another post recommended to use guy
wires so to reduce windload off the chimney.

I don't believe this will reduce windload at all, the guys will
be attached to the mast only and not the actual antenna so
no reduction in windload.

Best to avoid using the chimney and attach the mast to the house
at the eave using long bolts and nuts attached to some pressure treated
(and painted) 2x4's on outside and inside the attic. stronger and
you don't have to worry about the coax getting too hot from the heat
of the chimney exhaust.

mick

2740. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 08:10:55 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <n77630te1b58qeu7nff43g66d7p7l9oa8d@4ax.com>
Source record: 99812

A chimney is one of the worst places you can locate an antenna. They appear to be handy, but even on an old chimney there are corrosive gases that will really do a job on Aluminum. Gas fired furnaces are bad, wood is worse,a nd coal is terrible.

If the chimney appears to be solid enough to hold a small antenna, (they rarely are strong enough to hold much more than a VHF, or TV antenna) then give all the aluminum about 4 or 5 coats of clear Krylon. Give the coax connector and attach points several coats of liquid electrical tape.

Even then it most likely will have to be done every year or two at best.

Steel mast fittings will rust beyond repair within just a few months. They'll hold, but usually have to be cut off, or will twist off when an attempt to remove the nuts is made.

If at all possible, put the antennas some where other than on a chimney.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

2741. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 09:12:07 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c0va7d$1bdtha$1@ID-150848.news.uni-berlin.de>
Source record: 99813

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:t5d530lqfrpu3hvn4q4nlj57ghcalgsua7@4ax.com...
> On Tue, 17 Feb 2004 22:41:16 -0000, "Richard"
> <nearlynews_email@ntlworld.com> wrote:
> >[This post is sent again in plain text (cannot avoid that). I've
> >used a monospaced font type, "courier new", font size, "smaller"
> >to view the page on my PC. To correctly view the ASCII art, you
> >ay need to adjust your viewing font (Tools>Options>Read>Fonts)
> >to: Proportional Font: "Courier new" Font size: "smaller".]
> >
>
> Hi Richard,
>
> It may look good to you, but for many it remains sloppy.
>
> The convention of ASCII-Doodles is to employ fixed pitch fonts. This
> is available to everyone.

Hi.

I have used fixed pitch on the second post. Courier new is fixed
pitch/monospaced.

I beleive the viewer though has to change the veiwing font to courier new.

2742. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 11:09:05 UTC
From: "David J. Windisch" <davidw@copper.net>
Message-ID: <4031f073_4@newsfeed.slurp.net>
Source record: 99814

Yuri, the earth *is* almost flat, at least on one side. I have pictures from major earth-satellites showing that reality.

The pictures also prove that there must be strong winds on at least one of the satellites, cuz a US flag in some of the pictures is not hanging straight down.

Maybe you and Cecil can explain to us why, with all the evidence in the pictures, the guy is wearing the funny suit, and isn't eating an egg-on-his-face omelet made with the locally-cultured chartreuse-colored cheese, in his skivvies, under some trees on a park bench.

Or is there another picture?

73, Dave, N3HE

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message news:20040217225519.19241.00001783@mb-m26.aol.com...
> Jim Kelley proclaimed:
>
> >> It began when you
> >> claimed more current goes into one end of an inductor than comes out the
> >> other end. That notion is utterly without merit.
> >
>
>
> Aaaah, Flat Earth Society demonstrating their "knowledge".
> Look at www.K3BU.us at pictures of RF ammeters SHOWING reality.
> Not good enough? Keep harping, the eggs on your faces are getting bigger and
> bigger.
>
> Yuri

2743. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 11:17:37 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <9RHYb.2479$C21.45@fed1read07>
Source record: 99815

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:c0ub0g$j1e$1@newshost.mot.com...
> Actually, if there is an *easy* way, I'd sure like to know!
>
> I started my DF'ing in the Navy in the late 60's, so I'm no slouch.
> This is a very sticky problem; few ways to do this. All phase systems
> (Doppler, TDOA) require the signal to be well centered in the IF and a
well
> behaved IF to boot. The amplitude systems (beam, single / dual cardioid)
> are better for this, but the sweep-width of this signal makes the beam
less
> effective due to the change in gain as you get off the design freq.
>
> If I had the time, I'd modify a wide band FM receiver (like a broadcast
> receiver 88-108) with a *really* aggressive AFC so it would follow the
bogie
> along. Then a TDOA should work. Actually any would be better with this
> receiver, but I would have to do a little characterization across the
> expected freq range first.
>
> I think *any antenna* and a spectrum analyzer watching signal strength is
> the best bet...already done some of that. The biggest problem is that it
> is most active when we have the least time to hunt.
> Steve
>
>
>
>
>
> "Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
> news:403244ed_3@news1.prserv.net...
> > Ed:
> >
> > I think Steve would be interested in hearing a methodology for DFing a
> > non-stationary signal, as would I. I have tried to track one of these
> spurs
> > with a receiver while simultaneously attempting to get a bearing, and
gave
> > up. The Doppler DF systems need it in the passband and frequency stable
> for
> > at least one "revolution" of the virtual antenna, which doesn't happen,
so
> > let's hear what works.
> >

> > --
> > Crazy George

I agree with Steve's observations (although I prefer that he bottom-post), but I would still try to keep the process simple.

First, you know the very limited frequency range of the offending signal (you said it slowly drifts across your repeater input at 145.41 MHz). So that means you know which way it drifts, about how fast the frequency slew is, and about how far it shifts. Further, you know the characteristic modulation on the signal. And, to make it even easier, the signal isn't playing tricks on you to spoof your search. Finally, you must have some idea by now as to when the signal is most likely to be present.

Time to get a directional antenna (Yagi, log periodic, a loop resonant to 145 MHz, even an inefficient horn) and look for the signal. I would use a spectrum analyzer (those HP boxes are too big and heavy, so look for a Leader or Anritsu. Why not turn this into a real learning experience? Why not build a 2 meter version of the Poor Man's Spectrum Analyzer into a briefcase, maybe updating the display by using a small laptop?

As a first assumption, I suppose we can assume that the offending signal isn't in a vehicle. So get out and grab a bearing when you can. Obviously, you have to be prepared to get into the field quickly and efficiently to make your observations. After a couple of bearings, at least you will guess which side of town to look first.

Hey, if this was easy, then T-hunts would be no fun, and clandestine radio would be a short path to a bullet.

Ed
wb6wsn

2744. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 14:04:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c0vrcl$9pf$1@hercules.btinternet.com>
Source record: 99816

When a body in the form of a rod or a tube, albeit a short rod, is placed under torsion, ie., it is subjected to a TWISTING MOMENT, then SHEAR stresses are set up in it.

The shear stresses are in the plane of the cross-section - adjacent cross-sections tending to slide over each other.

When the body experiences a sideways thrust, as from wind, then a BENDING MOMENT is set up in it. One side of the body is under vertical TENSION and the other side is under vertical COMPRESSION.

Brickwork and concrete are much the weakest when under tension. Not so weak when under shear. Much the strongest when under compression.

The weight of brickwork exerts a uniform compressive stress over the cross-section. Initially there is no tensile stress. But the bending moment due to wind on ONE side of the structure eventually overcomes the compression. On THAT side the stress becomes tensile and the brickwork parts company with itself, ie., the structure initially fails under tension.

It is only AFTER failure has occurred due to tension that shearing takes place and bricks begin to slide sideways, one over the other.

The art in the design of brick and concrete structures, eg., as for chimneys, bridges and gravity damns, is NOT to allow any TENSILE stresses to be set up. Hence the frequent use of steel reinforcement.

Memo: In view of the variability in such materials apply large factors of safety.

Reg, G4FGQ

2745. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 14:27:33 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40322039_1@newsfeed.slurp.net>
Source record: 99817

Yes, phased verticals will outperform a dipole. The concept of phased verticals involves two or more verticals, specifically spaced, and fed with specific lengths of feedline to control the phasing of the signals they're transmitting.

Based on the spacing used, and the phasing arrangements, you can creat patterns of directed transmitted energy, just like a beam antenna - it *is* a beam antenna.

Your best option now is to pick up a few books on basic antenna theory; I would suggest the ARRL Antenna Book, and Low-Band DXing by ON4UN...

Mike KI6PR
El Rancho R.F., CA

"bb" wrote
> First... what is phasing of verticals.
>
> My 40 m dipole is only 30' up...would vertical phasing be an
> improvement?
>
> What would be the dimensions of the vertical and spacing distance?
>

2746. Re: G5RV or 35 ft center fed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 14:35:29 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4032221a_6@newsfeed.slurp.net>
Source record: 99818

Gene,either antenna will fit into your yard without a problem, but don't get locked into the idea that these are your only options, just because a lot of other folks use them. That's not to say that either antenna wouldn't do a good job for you; you just have more options.

If you run either antenna, feed with 450-ohm ladder line (look for the stuff with stranded wire - it holdsup better in the wind. And, 450-ohm line tends to tune a bit wider than 300-ohm. Forget the auto tuner, and use a good external tuner - you'll get much better results.

Good luck with your upgrade...

Mike KI6PR
El Rancho R.F., CA

"GJS917" wrote
> I have an 80x100 foot lot. On a diagonal between trees I could put up a
> flattop of 102 feet. Should I put up a G5RV or bend the wire at each end
and
> go for a 135 foot center fed? My rig is a TS-440S with a built in tuner.
> What type of feed do you recommend. Some say you get the least loss with
> twin lead. Should I use 300 or 450 ohm? Then should I put an air choke
at
> the end of the run and tie the other end of the air choke directly into
the
> rig's auto tuner? Also should I install a lightning arrestor at the point
> where the feed enters the house (I'll probably drop the feed to the roof
and
> bring it into the attic. The shack is in a second floor bedroom.) I am
> presently studying for my license so any advice would be greatly
> appreciated.
>
>
>
> Thanks,
>
> Gene
>
>
>

2747. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 15:55:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40338be6_5@corp.newsgroups.com>
Source record: 99719

Mikey wrote:
> Yes, phased verticals will outperform a dipole.

Some phased verticals will outperform a dipole, depending upon how one defines "outperform". A dipole at a decent height can have a 7 dB gain over a 1/4 WL monopole. A two-element phased vertical cannot equal that figure over average ground. Reference: Fig 10, Chapter 8, The ARRL Antenna Book, 15th edition. The maximum gain figure for a two-element phased vertical is 4.7 dB over a 1/4 WL monopole. The average is about 3 dB depending on spacing and phasing. That same graphic is Fig 11, Chapter 8, on the ARRL Antenna Book CD, ver 2.0.

EZNEC sez my simple 130 ft. dipole at 40 ft. has a gain of 10.8 dBi on 10m with a take-off-angle of 12 degrees. It would take quite a vertical array to equal that. (Then I would have to somehow overcome a +10 dB vertically polarized noise level. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2748. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 15:58:21 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <10372sppitcn649@corp.supernews.com>
Source record: 99720

Had forgot about the DDRR -- After further checking , the geometry of it,
and the Excalibur, they are really the same antennas, just that the DDRR is
formed into a circle, while the Excalibur is a straight line
The Excalibur looks like : __X_____________
/__X_____________
, with the middle open, 1/4 wavelength long

and as stated,

"X's" would be the feedpoint !
is a "slot" antenna . These are related to aircraft antennas, where , a
slot is cut into the frame, and then fed with R.F. You don't see it, as it
is covered with fabric, plastic, or some other non-conductive media !
As a further aside, is used , in bombers, extensively, and have arrays of
these , stacked in phase!!
reason is if one, or 2 shot out, the antenna will still work, literally
until the plane is destroyed!
As info, Jim NN7K

"Phil" <phil.bradway@verizon.net> wrote in message
news:iBnYb.52639$IF1.46284@nwrdny03.gnilink.net...
> You might consider a DDRR antenna. See
> http://www.antennex.com/preview/2mddrr.htm. They are available
commercially,
> too.
>
> Phil, KB2HQ
>
> "Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
> news:9nvu20h9cqt0rjt6qvvi3mehsdf6hrsv8k@4ax.com...
> > On Sun, 15 Feb 2004 02:30:24 GMT, "Bruce D. Meyer" <bdmeyer44@msn.com>
> > wrote:
> >
> > >I park in a parking garage at work, so my 2 meter anetnnae won't fit on
> the
> > >car (P.T. Cruiser) while in the garage. Removing it, just before
entering
> > >the garage is not an option. Does anyone have a recomendation on an
> > >alternate 2 meter antennae?
> > >
> > >Bruce Meyer
> > >www.kg4tac.net
>
>

2749. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 16:40:14 UTC
From: richardharrison@webtv.net
Message-ID: <12324-4033956E-47@storefull-3256.bay.webtv.net>
Source record: 99721

Yuri, K3BU wrote:
"Properly designed and built Quad will beat Yagi in all the Above mentioned "parameters"."

The author of "All About Cubical Quad Antennas", Bill Orr, W6SAI says:
"The power of the 3-element or 2-element Yagi, however, is not swept aside by the Monster Quad, no matter what the size and power gain of this impressive antenna."

Orr says measurements with an accuracy of a decibel or better are hard to believe. His table shows about 1.7 dB advantage for a Quad with 2 or 3 elements over the Yagi, and the boom length may be about 2/3 that of the Yagi, he says the reason for building a Quad instead of a Yagi is likely a matter of opinion as to the value of the small edge the Quad may have versus the extra cost and effort to get the Quad up.

Orr says he used both the Yagi and the Quad for years as did many of his good friends. He says objective and subjective tests show the Quad has a definite advantage in terms of signal strength over the Yagi antenna.

Best regards, Richard Harrison, KB5WZI

2750. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 17:24:04 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <0p7730t7nbsfolp2lculd2278tgqnt36ou@4ax.com>
Source record: 99722

On Wed, 18 Feb 2004 03:17:37 -0800, "Ed Price" <edprice@cox.net>
wrote:

>
>I agree with Steve's observations (although I prefer that he bottom-post),
>but I would still try to keep the process simple.
>
>First, you know the very limited frequency range of the offending signal
>(you said it slowly drifts across your repeater input at 145.41 MHz). So
>that means you know which way it drifts, about how fast the frequency slew
>is, and about how far it shifts. Further, you know the characteristic
>modulation on the signal. And, to make it even easier, the signal isn't
>playing tricks on you to spoof your search. Finally, you must have some idea
>by now as to when the signal is most likely to be present.
>
>Time to get a directional antenna (Yagi, log periodic, a loop resonant to
>145 MHz, even an inefficient horn) and look for the signal. I would use a
>spectrum analyzer (those HP boxes are too big and heavy, so look for a
>Leader or Anritsu. Why not turn this into a real learning experience? Why
>not build a 2 meter version of the Poor Man's Spectrum Analyzer into a
>briefcase, maybe updating the display by using a small laptop?
>
>As a first assumption, I suppose we can assume that the offending signal
>isn't in a vehicle. So get out and grab a bearing when you can. Obviously,
>you have to be prepared to get into the field quickly and efficiently to
>make your observations. After a couple of bearings, at least you will guess
>which side of town to look first.
>
>Hey, if this was easy, then T-hunts would be no fun, and clandestine radio
>would be a short path to a bullet.
>
>Ed
>wb6wsn

It sounds a lot easier than it is. Sometimes the interference that you
hear is the result of a spur from one transmitter getting into another
and the IM product of the second is what you hear. Try and track that
one down!
The most successful way I have seen is to first find the general
direction the problem is coming from (spectrum analyzer and
directional antenna) and then spending many hours watching the
spectrum analyzer to see what transmitters come on the air when the
interference is present.

Problem is that they are not always there. Temperature difference at a particular site can cause the spur to change or not be there. Amount of use of the transmitter can make a difference. These things can drift across the whole VHF band or more.
73
Gary K4FMX

2751. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 18:31:46 UTC
From: tdonaly@aol.com
Message-ID: <20040218133146.17156.00002311@mb-m03.aol.com>
Source record: 99723

Cecil wrote,
>
>The Flat Earth Society just cannot accept the fact that there can be one
>amp of current at one end of the coil and zero amps at the other end, just
>like a piece of transmission line. Never mind that the coil is on top of
>a mobile antenna and the current at the very top has no place to go.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

What's that you said about ad hominem attacks, Cecil? I'm still waiting
for Yuri to make his far-out-outtasite-wow! mobile antenna based on the
results he gets from measuring coils with fish tank thermometers.
As for your ideas about current, they're just another example of someone
being led astray by the reification of abstract words and don't really account
for much.
You often use the
technique of telling other people what they believe, Cecil, in order, I
suppose,
to get them so embroiled in trying to explain what they do believe that the
original argument is obscured. This is what you've done in the above posting.
If you have to sink to misrepresenting other people's ideas in order to "win"
your argument, you've actually admitted that you've lost.
73,
Tom Donaly, KA6RUH

2752. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 18:35:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033b17a_6@corp.newsgroups.com>
Source record: 99724

Richard Harrison wrote:
> Orr says he used both the Yagi and the Quad for years as did many of his
> good friends. He says objective and subjective tests show the Quad has a
> definite advantage in terms of signal strength over the Yagi antenna.

It is good to remember that the Quad was invented to solve a particular
problem.

From Orr's book concerning the 4-element Yagi initially installed:

"Totally unexpected, however, was the effect of operating the high-Q
(Yagi) beam antenna in the thin evening air of Quinto. Situated at 10,000
feet altitude in the Andes, the beam antenna reacted in a strange way to
the mountain atmosphere. Gigantic corona discharges sprang full-blown from
the tips of the driven element and directors, standing out in mid-air
and burning with a wicked hiss and crackle. The heavy industrial aluminum
tubing used for the elements of the doomed beam glowed with the heat of the
arc and turned incandescent at the tips. Large molten chunks of aluminum
dropped to the ground as the inexorable fire slowly consumed the antenna."

"The corona discharges were so loud and so intense that they could be seen
and heard singing and burning a quarter-mile away from the station. The
music and programs of HCJB could be clearly heard through the quite night
air of the city as the r-f energy gave fuel to the crowns of fire clinging
to the tips of the antenna elements."

C. Moore invented the Quad beam to solve that somewhat special problem.

Quads also have all the advantages that loops enjoy over dipoles. One
thing that comes to mind is a marked reduction in static electricity due
to wind and snow because the entire loop is virtually at DC ground.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2753. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 18:50:47 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4033B407.CFACDAA0@uci.edu>
Source record: 99725

Yuri Blanarovich wrote:
>
> Jim Kelley proclaimed:
>
> >> It began when you
> >> claimed more current goes into one end of an inductor than comes out the
> >> other end. That notion is utterly without merit.
> > >
>
> Aaaah, Flat Earth Society demonstrating their "knowledge".
> Look at www.K3BU.us at pictures of RF ammeters SHOWING reality.
> Not good enough? Keep harping, the eggs on your faces are getting bigger and
> bigger.
>
> Yuri

Yuri,

I think you're missing the point - just as Cecil is. You seem to have forgotten that I agree with the idea that there is a current gradient across these inductors - just as there is a current gradient along any quarter wavelength of transmission line with standing waves. That doesn't mean there's more current "going in one end" than is "coming out of the other end." It's a sophomoric notion. Do you wanna be a simpleton? You're almost there with this nonsense. Why do you want to screw up a valid idea by attaching a ridiculous one to it?

73, Jim AC6XG

2754. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 19:03:16 UTC
From: yooser@fluadub.com
Message-ID: <yooser-33C3E8.13054618022004@netnews.comcast.net>
Source record: 99726

In article <G5ydnUE0p9_D97Ld4p2dnA@ctc.net>,
"Ralph Mowery" <rmowery@ctc.net> wrote:

> "Mikey" <ki6pr@arrl.net> wrote in message
> news:402d6544_6@newsfeed.slurp.net...
> > As an experiment, if you're looking for something for both channels 57 and
> > 69, cut your yagi for the frequency right between them, and it should
> cover
> > both. #14 wire is relatively flimsy - are you using this indoors? If
> not,
> > you will want to tape it down to a frame of some type (wood, pvc, etc.).
> >
>
> Simple yagi antennas are relative narrow band antennas. They are not too
> effective for that broad of a frequency range. Also for many they are more
> like a low pass filter in that at frequencies below the designed one the
> pattern is not too bad but going above the designed frequency the pattern
> falls apart very rapidly. If anything design the antenna for the highest
> frequency used.
>
>
>

This is not going to work. Yagi's are narrow band to begin with, lucky
if you can get 6 mhz bandwidth. Using thin #14 wire makes it impossible.

If you want to build this antenna, make it out of 1/2" copper water
pipe. Cut the reflector to channel 69; the directors and dipole to
channel 58.

Putting a low noise amplifier at the antenna is a good idea. But good
ones cost.

I missed the setup to your question, are both channels in the same
direction?

2755. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 19:18:17 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <m3fzd8w612.fsf@qmc.ph.msstate.edu>
Source record: 99727

>Quads also have all the advantages that loops enjoy over dipoles. One
>thing that comes to mind is a marked reduction in static electricity due
>to wind and snow because the entire loop is virtually at DC ground.

A yagi built with "plumbers delight" construction has every element bolted
directly to the metal boom, so every element is at DC ground.

Torsten
N4OGW

2756. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 20:03:50 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402181203.2d2dfe03@posting.google.com>
Source record: 99728

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40338be6_5@corp.newsgroups.com>...
> Mikey wrote:
> > Yes, phased verticals will outperform a dipole.
>
> Some phased verticals will outperform a dipole, depending upon how one
> defines "outperform".

It's more depending on the distance worked.

A dipole at a decent height can have a 7 dB gain
> over a 1/4 WL monopole.

His is at 30 ft. Yea, it might have 7 db max gain over the vertical.
If he's working within 500 miles...

A two-element phased vertical cannot equal that
> figure over average ground.

Are you saying he should avoid radials, and use only the fairly lame
"average ground"? No wonder none of your verticals work well... Cecil,
I got news for you. A GOOD 2 el phased vertical setup would trounce a
dipole at 30 ft at long distances past 1000 miles. A single GOOD
vertical will beat the dipole on the same longer paths. Of course, I'm
talking real verticals with the proper number of radials per height in
wavelength, not some shortened loaded storebought junk, with no
radials.

Reference: Fig 10, Chapter 8, The ARRL Antenna
> Book, 15th edition. The maximum gain figure for a two-element phased vertical
> is 4.7 dB over a 1/4 WL monopole. The average is about 3 dB depending on
> spacing and phasing. That same graphic is Fig 11, Chapter 8, on the ARRL
> Antenna Book CD, ver 2.0.

Gain fiqures are very misleading in this case. Tells only about half
the story.
You are causing more confusion than anything, because you don't
properly apply the antennas to their proper jobs/paths. You never saw
good results with yours because you misapplied it by using it for
short paths, and also stunted it's performance by using too few
radials. It never had a chance.
>
> EZNEC sez my simple 130 ft. dipole at 40 ft. has a gain of 10.8 dBi on
> 10m with a take-off-angle of 12 degrees. It would take quite a vertical
> array to equal that. (Then I would have to somehow overcome a +10 dB
> vertically polarized noise level. :-)

What direction is all this gain? What will happen when you have to work someone in one of your nulls? Heck, I bet many of my old 5/8 ground planes would have equaled or beat your signal on 10m, to *most* people. I don't ever remember being beat by a simple dipole. In fact, when I used ground planes on 10m, I considered a horizontal dipole to generally be inferior. I know the ones I had were inferior to my ground planes at paths 1500-2000 miles away. And yes, some were long, and should have shown gain. They were over a wavelength high also. I wonder how your 10.8 dbi on 10m dipole would stack against my Cushcraft A4S beam? It has less gain according to the specs. But, I bet it beats your dipole on 10m in any direction if mounted at the same height. BTW, none of my 10m ground planes showed a 10 db increase in noise over my dipoles or other wire antennas. MK

2757. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 20:23:49 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040218152349.28530.00002269@mb-m01.aol.com>
Source record: 99729

>Yuri,
>
>I think you're missing the point - just as Cecil is. You seem to have
>forgotten that I agree with the idea that there is a current gradient
>across these inductors - just as there is a current gradient along any
>quarter wavelength of transmission line with standing waves. That
>doesn't mean there's more current "going in one end" than is "coming out
>of the other end." It's a sophomoric notion. Do you wanna be a
>simpleton? You're almost there with this nonsense. Why do you want to
>screw up a valid idea by attaching a ridiculous one to it?
>
>73, Jim AC6XG
>

OK, so it is more current "coming out in one end", than is "coming in at the other end"?
Is this what IS is?
The argument was "virtually same" vs. "different" (gradient, more at one end than the other, etc.)
Are we taking off on tangents to muddy the waters?
I am almost done with cleaning the "lab", wx is warming up, I will soon get out, do more tests and finish the article.
More articles I see in publications, more perpetuation of the wrong picture and idea that current is the same in loading coils. Even QEX and new Antenna Book keep on misleading.

Yuri, K3BU/m

2758. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 20:36:08 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040218153608.28530.00002270@mb-m01.aol.com>
Source record: 99730

>
>Quads also have all the advantages that loops enjoy over dipoles. One
>thing that comes to mind is a marked reduction in static electricity due
>to wind and snow because the entire loop is virtually at DC ground.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

That's what I thought too, I built the quads using insulated wire in hope to eliminate atmospheric static, but I could barely tell the difference. What made huge difference (wiping out static completely) is the use of stacked antennas, or having larger antenna over the one in use. The top one would be 20 over S9 while lower one is dead silent.

Quad advantages: made of wire, no corroded junctions like with Al tubing. Quads rule up to about 5 el. then Yagis take over. I have 3 el. design that is 50 ohms, no matching, broad band. One advantage quad has that it is only antenna that can be used for different polarizations with the same hardware. Parasitic loop doesn't know what polarization it is.

Yuri, K3BU.us

2759. Re: Quad vs Yagi (or log)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 20:38:45 UTC
From: "Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET>
Message-ID: <1037java8fdv1a3@corp.supernews.com>
Source record: 99731

When I compared my requirements against what a yagi versus a quad would deliver, there was no contest - a quad met my needs better than a yagi. I purchased a Gem boomless (spider) quad for the following reasons:
- lightweight (small rotor)
- small footprint (9 foot turning radius)
- all bands including WARC from 6 - 20 meters
- optimally spaced elements for each band
- individually tune each band without interaction
- good performance, quiet receive
- no magic (traps)... I can build it, tune it, fix it
- relatively inexpensive

Notice that my requirements do not include the best gain figures nor the best F/B ratio --- which I think you will only get with a monoband no-compromise yagi. Unfortunately, yagis don't meet my other requirements.

-larry
K8UT
"Thierry" <To answer me in private use
http://www.astrosurf.com/lombry/post.htm> wrote in message
news:402b4d5b$1_1@news.vo.lu...
> Hi,
>
> Before investing in a future antenna I have discussed on my site about
> antennas designs, quad vs yagi or log.
> http://www.astrosurf.com/lombry/antenna4.htm
> I would like to get more information from users. If you used both quad and
> Yagi, I should be curious to know your opinion about both designs, pro and
> cons in various conditions of work (installed on the roof, 10m away fro
the
> hosue, 2m high only, etc).
>
> I need for example some more information about the noise generated by a
yagi
> vs a quad or any other relevant information at which I don't think about.
> For example, at first "sight" the quad generates 5-10 dB less than a quad.
> Have you some similar information or other with all relevant data (nbr of
> elements of concerned antennas, wind speed during measurements, location
of
> antenna, etc).
>
> Also, I am interested in the drawbacks of each model (quad, yagi, log). I
> discuss about this problem too, but I 'd like to go further in this
matter.
> The question is : why did you choose - or didn't choose - this design

> (another reason than its price with is of course the main factor).
>
> Thanks in advance
>
> Thierry
> ON4SKY
>
>

2760. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 20:43:50 UTC
From: richardharrison@webtv.net
Message-ID: <21352-4033CE86-85@storefull-3252.bay.webtv.net>
Source record: 99732

Cecil, W5DXP wrote:
"The Flat Earth Society just cannot accept the fact that there can be one amp of current at one end of a coil and zero amps at the other end, just like a piece of transmission line."

What causes one amp of current at one end of a coil and zero amps at the other end of the coil?

It is reflection. When an incident wave meets a discontinuity which can`t take all the voltage or current contained in the incident wave, the surplus voltage or current is reflected back toward the source by the mismatched load.

At a point we might call "P" somewhere along an antenna wire, the incident wave required a period of time, we might express in electrical degrees, to reach "P" from the generator.

At the same point "P", the reflected wave takes longer to arrive as it traveled past "P" to reach the reflection point, then it traveled back to "P".

Further, either the voltage or current associated with the reflected wave is delayed by an additional 180-degrees.

If the load impedance is too low to accept all the voltage in the incident wave, the current is reversed without additional delay, but there is a reversal in the phase of the reflected voltage. This can be recalled by the fact that with a complete short, equal but opposite volts cancel making zero volts across a short.

If the load impedance is too high to accept all the current in the incident wave, the voltage is reversed without additional delay but there is a reversal in phase of the reflected current.

At a discontinuity there is a phase reversal of either reflected volts or amps, but not a reversal of phase in both.

At the open-circuits at the ends of a simple dipole antenna, nearly all the incident current runs out of wire and has nowhere to go except toward the generator that it came from.

To go to zero, the reflected current must equal the incident current but it is traveling in the reversed direction.

The cancellation of current requires H-field energy to momentarily transfer to the E-field. This so-called Ferranti effect doubles the incident voltage at the open-circuit.

The impedance of the near open circuit is the doubled voltage divided by the near zero amps. At 1/4-wave back from the extremely high-voltage, high-impedance points at the dipole tips, the picture is inverted. The volts are minimum and the amps are maximum.

Every segment of wire in a simple dipole of overall length of 1/2-wave or less has higher voltage and higher impedance on its end nearer the the dipole tip than it does on its end nearer the center of the dipole.

If any part of the simple dipole, 1/2-wave or shorter, is made of a coil instead of a straight piece of wire, the coil too has a higher impedance on the end nearer the dipole tip and a lower impedance on the coil end near the center of the dipole.

The difference in current at opposite ends of an antenna loading coil is due to the interaction of incident and reflected waves just as in a straight wire.

The above seems a clear as sailing west to reach the east, to me.

Best regards, Richard Harrison, KB5WZI

2761. Re: Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 21:01:38 UTC
From: AL KA5JGV <ABurzynski@nojunk.satx.rr.com>
Message-ID: <SoQYb.2396$J84.2003@fe1.texas.rr.com>
Source record: 99733

Some good info on impedance matching to an SWL longwire can be found here:

http://www.anarc.org/naswa/badx/antennas/SWL_longwire.html

Al KA5JGV

"JEFF UK" <Birdnbloke@btopenworld.com> wrote in message
news:c0ocs3$1qo$1@titan.btinternet.com...
> Hi.
> Would some please explain to me the different types of SWL Baluns and
> what type should be used for which antenna.?
> I use a long wire at the moment. What is best for this.?
> 1:1, 1:4, 1:9 ??? Not sure what all this means.
> Is there a site where i can see different homebrew projects for each of
> these ?
> All help welcome
> Regards
> Jeff
>
>

2762. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 21:48:30 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4033DDAE.F8E56BC1@uci.edu>
Source record: 99734

Yuri Blanarovich wrote:
>
> >Yuri,
> >
> >I think you're missing the point - just as Cecil is. You seem to have
> >forgotten that I agree with the idea that there is a current gradient
> >across these inductors - just as there is a current gradient along any
> >quarter wavelength of transmission line with standing waves. That
> >doesn't mean there's more current "going in one end" than is "coming out
> >of the other end." It's a sophomoric notion. Do you wanna be a
> >simpleton? You're almost there with this nonsense. Why do you want to
> >screw up a valid idea by attaching a ridiculous one to it?
> >
> >73, Jim AC6XG
> >
>
> OK, so it is more current "coming out in one end", than is "coming in at the
> other end"?

Do you think that is how to best describe what is happening in antenna
circuits, Yuri?

You do understand what a standing wave pattern is, right?

73, Jim AC6XG

2763. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 21:55:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033e05a$1_8@corp.newsgroups.com>
Source record: 99735

Jim Kelley wrote:
> That
> doesn't mean there's more current "going in one end" than is "coming out
> of the other end." It's a sophomoric notion.

Nope, it's not, Jim. Current cannot stand still. The current at the bottom of the coil is referenced to the source current which in EZNEC, is usually one amp at zero degrees which, *by convention*, has the RMS value flowing into the antenna. The same convention is used for circuit components.

EZNEC then tells us that the current at the bottom of the coil is 0.87a at -1.23 deg and the current at the top of the coil is 0.67a at -1.57 deg. All these currents are phasors. One amp at zero degrees is flowing into the antenna. 0.87a at -1.23 degrees is flowing into the bottom of the coil, by convention, because the cosine of the phase_angle is positive. 0.67a at -1.57 degrees is flowing out the top of the coil, by convention, because the cosine of the phase_angle is positive. All referenced to the source current (you know, that little current arrow that you draw on a diagram to indicate the RMS current flow).

What is a sophomoric notion is your notion that current doesn't flow when it's associated with a coil. Does it just sorta vegetate around the ends of the coil or what? If you were asked to draw RMS current arrows on a diagram associated with a coil, would you say it can't be done? Why do you think the RMS conventions were invented?

Incidentally, this concept of current into the coil and current out of the coil was introduced by Tom, W8JI who said in the original argument: "If you look at HOW an inductor works, the current flowing in one terminal ALWAYS equals the current flowing out the other terminal." Even if Tom was wrong about the equal currents, he clearly comprehends the AC current flow convention.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2764. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 22:06:33 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4033E1E9.824F3B46@uci.edu>
Source record: 99736

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > That
> > doesn't mean there's more current "going in one end" than is "coming out
> > of the other end." It's a sophomoric notion.
>
> Nope, it's not, Jim. Current cannot stand still.

You keep saying that as if it was relevant.

> The current at the bottom
> of the coil is referenced to the source current which in EZNEC, is usually
> one amp at zero degrees which, *by convention*, has the RMS value flowing
> into the antenna.

Both in to and out of. Not one or the other.

> What is a sophomoric notion is your notion that current doesn't flow when
> it's associated with a coil.

I have no such notion. It's another of the straw constructs you use to
try to win an argument by any means possible.

> Incidentally, this concept of current into the coil and current out of the
> coil was introduced by Tom, W8JI who said in the original argument: "If you
> look at HOW an inductor works, the current flowing in one terminal ALWAYS
> equals the current flowing out the other terminal." Even if Tom was wrong
> about the equal currents, he clearly comprehends the AC current flow convention.

Then I observe that neither you nor Tom completely understands standing
waves.

73, Jim AC6XG

2765. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 22:07:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033e31a_8@corp.newsgroups.com>
Source record: 99737

Mark Keith wrote:
> You are causing more confusion than anything, because you don't
> properly apply the antennas to their proper jobs/paths. You never saw
> good results with yours because you misapplied it by using it for
> short paths, and also stunted it's performance by using too few
> radials. It never had a chance.

I didn't say anything about my vertical, Mark. I merely quoted The
ARRL Antenna Book and EZNEC results. Your (biased) argument is with
them, not with me.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2766. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 22:14:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033e4ba_8@corp.newsgroups.com>
Source record: 99738

Richard Harrison wrote:
> If any part of the simple dipole, 1/2-wave or shorter, is made of a coil
> instead of a straight piece of wire, the coil too has a higher impedance
> on the end nearer the dipole tip and a lower impedance on the coil end
> near the center of the dipole.

Yep, and for the same power level, a higher impedance usually means
a lower current and vice versa.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2767. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 22:25:43 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4033E667.EA5E5914@uci.edu>
Source record: 99740

Cecil Moore wrote:
>
> Richard Harrison wrote:
> > If any part of the simple dipole, 1/2-wave or shorter, is made of a coil
> > instead of a straight piece of wire, the coil too has a higher impedance
> > on the end nearer the dipole tip and a lower impedance on the coil end
> > near the center of the dipole.
>
> Yep, and for the same power level, a higher impedance usually means
> a lower current and vice versa.

But the impedance *at* such points does not affect the current *at*
those points?

73, Jim AC6XG

2768. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 22:26:37 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c10ou9$1k3$1@newshost.mot.com>
Source record: 99739

"Gary Schafer" <gaschafer@comcast.net> wrote in message
news:0p7730t7nbsfolp2lculd2278tgqnt36ou@4ax.com...
> On Wed, 18 Feb 2004 03:17:37 -0800, "Ed Price" <edprice@cox.net>
> wrote:
>
>
> >
> >I agree with Steve's observations (although I prefer that he
bottom-post),
> >but I would still try to keep the process simple.
> >
> >First, you know the very limited frequency range of the offending signal
> >(you said it slowly drifts across your repeater input at 145.41 MHz). So
> >that means you know which way it drifts, about how fast the frequency
slew
> >is, and about how far it shifts. Further, you know the characteristic
> >modulation on the signal. And, to make it even easier, the signal isn't
> >playing tricks on you to spoof your search. Finally, you must have some
idea
> >by now as to when the signal is most likely to be present.
> >
> >Time to get a directional antenna (Yagi, log periodic, a loop resonant to
> >145 MHz, even an inefficient horn) and look for the signal. I would use a
> >spectrum analyzer (those HP boxes are too big and heavy, so look for a
> >Leader or Anritsu. Why not turn this into a real learning experience? Why
> >not build a 2 meter version of the Poor Man's Spectrum Analyzer into a
> >briefcase, maybe updating the display by using a small laptop?
> >
> >As a first assumption, I suppose we can assume that the offending signal
> >isn't in a vehicle. So get out and grab a bearing when you can.
Obviously,
> >you have to be prepared to get into the field quickly and efficiently to
> >make your observations. After a couple of bearings, at least you will
guess
> >which side of town to look first.
> >
> >Hey, if this was easy, then T-hunts would be no fun, and clandestine
radio
> >would be a short path to a bullet.
> >
> >Ed
> >wb6wsn
>
> It sounds a lot easier than it is. Sometimes the interference that you

> hear is the result of a spur from one transmitter getting into another
> and the IM product of the second is what you hear. Try and track that
> one down!
> The most successful way I have seen is to first find the general
> direction the problem is coming from (spectrum analyzer and
> directional antenna) and then spending many hours watching the
> spectrum analyzer to see what transmitters come on the air when the
> interference is present.
>
> Problem is that they are not always there. Temperature difference at a
> particular site can cause the spur to change or not be there. Amount
> of use of the transmitter can make a difference. These things can
> drift across the whole VHF band or more.
> 73
> Gary K4FMX
>

OK. Got it. Remember to not eliminate Tx spur / IM. We had one spur occurrence last year and the two repeaters were >20 miles apart...but it was a pretty bit Tx spur. Interesting how this PA spur just landed on the other repeater input so nicely.
Steve

2769. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 22:37:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033ea33_8@corp.newsgroups.com>
Source record: 99741

Jim Kelley wrote:
> You do understand what a standing wave pattern is, right?

At any instant of time at a standing wave current maximum point (loop, antinode), the charge carriers are either moving toward the load (ends of the dipole) or toward the source (feedpoint). By convention, if the charge carriers are moving away from the source, the current, dQ/dt, is positive. If the charge carriers are moving toward the source, by convention, the current dQ/dt is negative. Even standing wave current cannot stand still and there are only two directions available in a wire. If the current is not zero, it changes directions every 1/2 cycle.

Standing wave current is the sum of the forward current and reflected current both of which are flowing.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2770. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 23:10:20 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4033F0DC.67E5173E@uci.edu>
Source record: 99743

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > You do understand what a standing wave pattern is, right?
>
> At any instant of time at a standing wave current maximum point
> (loop, antinode), the charge carriers are either moving toward
> the load (ends of the dipole) or toward the source (feedpoint).

You do understant that a standing wave pattern is NOT a plot of
instantaneous voltages or currents, right?

73, Jim AC6XG

2771. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 23:11:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033f210_8@corp.newsgroups.com>
Source record: 99742

Jim Kelley wrote:

> Cecil Moore wrote:
>> Current cannot stand still.
>
> You keep saying that as if it was relevant.

It is relevant to the logical corner into which you have painted yourself.
There exists current at the base of a coil. It either flows into the coil
or away from the coil. There is simply no other place for it to go since
it cannot stand still.

> Both in to and out of. Not one or the other.

You are forgetting your conventions. If the current at the bottom of the
coil is in phase with the feedpoint current, it is flowing the same
direction as the feedpoint current. By convention, the feedpoint current is
assumed to be flowing *into* the antenna. Therefore, by convention, the in-phase
current at the bottom of the coil is assumed to be flowing *into* the coil
referenced to the feedpoint current. EZNEC references all currents to the
feedpoint current which (surprise!) is feeding, i.e. flowing into the antenna.
If the current at the bottom of the coil is out of phase with the feedpoint current,
by convention, the current is flowing in the opposite direction to the feedpoint
current, i.e. out of the coil. What you say is irrelevant to the established
conventions.

>>What is a sophomoric notion is your notion that current doesn't flow when
>>it's associated with a coil.
>
> I have no such notion.

You can't have it both ways, Jim. Either current flows into a coil or it
doesn't. I say it does for 1/2 cycle referenced to the source. You are
arguing with me about that assertion.

> Then I observe that neither you nor Tom completely understands standing
> waves.

I don't "completely understand" anything, Jim. It is delusional to believe
that you are unique in completely understanding anything. May I remind you
of something Einstein said: "One thing I have learned in a long life: that
all our science, measured against reality, is primitive and childlike ..."

The current in standing waves flows - it doesn't stand still. You have been
seduced by your math model. Current can only stand if dQ/dt equals zero.
Otherwise, it is flowing in one of two possible directions available in a
wire. Your notion of current phase is literally a figment of your imaginary

number imagination. All real-world non-zero current is real and, in a wire, flows in only one of two possible directions. By convention, that direction is the sign of the cosine term referenced to the source. The magnitude of the current is Imax*cos(x). The phase is always either zero or 180 degrees. There is absolutely no difference in 1a at 45 deg. and 0.707a at zero deg. The j0.707a doesn't exist in reality.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2772. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 23:20:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033f410_8@corp.newsgroups.com>
Source record: 99744

Jim Kelley wrote:

> Cecil Moore wrote:
>>Yep, and for the same power level, a higher impedance usually means
>>a lower current and vice versa.
>
> But the impedance *at* such points does not affect the current *at*
> those points?

Cause and effect, Jim. Hint: The impedance equals v/i and is completely
virtual, i.e. clearly a result, not a cause. Even the feedpoint impedance
of an antenna is a ratio of v/i which is often simply the result of
interference between forward and reflected waves.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2773. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 23:23:16 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4033F3E4.73C91E4C@uci.edu>
Source record: 99745

Cecil Moore wrote:
> There exists current at the base of a coil. It either flows into the coil
> or away from the coil.

If it is DC current, you're right. If it is AC, then you're talking
about wave propagation. You're confusing the two things. You have to
decide which one you want to talk about.

> > Both in to and out of. Not one or the other.
>
> You are forgetting your conventions. If the current at the bottom of the
> coil is in phase with the feedpoint current, it is flowing the same
> direction as the feedpoint current. By convention, the feedpoint current is
> assumed to be flowing *into* the antenna. Therefore, by convention, the in-phase
> current at the bottom of the coil is assumed to be flowing *into* the coil
> referenced to the feedpoint current. EZNEC references all currents to the
> feedpoint current which (surprise!) is feeding, i.e. flowing into the antenna.
> If the current at the bottom of the coil is out of phase with the feedpoint current,
> by convention, the current is flowing in the opposite direction to the feedpoint
> current, i.e. out of the coil. What you say is irrelevant to the established
> conventions.

Not at all. What I say is the way AC voltage and currents are summed.
We don't talk about alternating current flowing in only one direction or
another. That would be silly. It's something I've only seen you do.

73, Jim AC6XG

2774. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 23:30:15 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4033F587.7C84E4F9@uci.edu>
Source record: 99747

```
Cecil Moore wrote:
>
> Jim Kelley wrote:
>
> > Cecil Moore wrote:
> >>Yep, and for the same power level, a higher impedance usually means
> >>a lower current and vice versa.
> >
> > But the impedance *at* such points does not affect the current *at*
> > those points?
>
> Cause and effect, Jim. Hint: The impedance equals v/i and is completely
> virtual, i.e. clearly a result, not a cause.

Little v over little i, Cecil? Are we talking instantaneous impedances
now also? ;-)

73, Jim AC6XG
```

2775. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 23:30:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033f678$1_8@corp.newsgroups.com>
Source record: 99746

Jim Kelley wrote:

> Cecil Moore wrote:
>>At any instant of time at a standing wave current maximum point
>>(loop, antinode), the charge carriers are either moving toward
>>the load (ends of the dipole) or toward the source (feedpoint).
>
> You do understand that a standing wave pattern is NOT a plot of
> instantaneous voltages or currents, right?

It is whatever you define it to be, Jim. You cannot display a real-time plot on a piece of paper. The standing wave patterns in The ARRL Antenna Book are RMS patterns. I have also seen them plotted as envelope patterns which is, IMO, a better representation. Whatever is plotted on a sheet of paper is some sort of time-frozen snapshot, by definition. EZNEC can display the relative phase of standing wave current, or not, depending upon what you want.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2776. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 23:41:46 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4033F83A.9F9B9878@uci.edu>
Source record: 99748

Cecil Moore wrote:
>
> Jim Kelley wrote:
>
> > Cecil Moore wrote:
> >>At any instant of time at a standing wave current maximum point
> >>(loop, antinode), the charge carriers are either moving toward
> >>the load (ends of the dipole) or toward the source (feedpoint).
> >
> > You do understand that a standing wave pattern is NOT a plot of
> > instantaneous voltages or currents, right?
>
> It is whatever you define it to be, Jim.

If that's what you think, then the answer is you don't know what a standing wave pattern is, and there really is nothing further I can discuss with you on the subject.

Good luck, and have fun in the contest OM.

73 de AC6XG

2777. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 23:49:35 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033faff_8@corp.newsgroups.com>
Source record: 99749

Jim Kelley wrote:

> Cecil Moore wrote:
>>There exists current at the base of a coil. It either flows into the coil
>>or away from the coil.
>
> If it is DC current, you're right. If it is AC, then you're talking
> about wave propagation. You're confusing the two things. You have to
> decide which one you want to talk about.

Nope, it is you who are confusing waves (photons) with current (dQ/dt).
I have said nothing about photon waves. Everything I have said applies to
current, i.e. dQ/dt where the charge carriers are electrons and reverse
direction every 1/2 cycle. That the electrons launch photons in waves is
irrelevant to this current discussion. dQ/dt (current) doesn't change much
because of photon acquisition or loss.

> We don't talk about alternating current flowing in only one direction or
> another.

Of course we do, Jim. We talk about the AC generator source current flowing
from the power stations to our houses. In general, AC current flowing in phase
with the generator current is considered to be flowing away from the generator
toward the load, by convention. This is clearly illustrated in my college
textbooks where AC RMS values replace DC values.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2778. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-18 23:53:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4033fbfb$1_8@corp.newsgroups.com>
Source record: 99750

Jim Kelley wrote:

> Cecil Moore wrote:
>>Cause and effect, Jim. Hint: The impedance equals v/i and is completely
>>virtual, i.e. clearly a result, not a cause.
>
> Little v over little i, Cecil? Are we talking instantaneous impedances
> now also? ;-)

Give me a break, Jim. I'm reading a book titled, "The Matter Myth",
so my mind is blown and you are mostly empty space. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2779. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 00:26:19 UTC
From: Jim <NN7K@Reno.Rmci.Net>
Message-ID: <10380l7k8ttbff4@corp.supernews.com>
Source record: 99751

Jim, as I read the arguement, (and these guys are RIGHT), you are confusing current being constant, in a media, with POWER being constant in a media (minus insertion loss's, of corse). for example, visualize a 1/4 wave (or a 1/2 wave dipole) , at the feedpoint, what is the current? even at a 1:1 swr, in coax, the current is constant, as you predict! But, WHAT, PREY, is the current, at the far END (S) of that 1/4 wave (DIPOLE) ? answer is 0 ! but the voltage has increased to that necessary to equal the amount of power impressed on it (I realize that any number times, 0 = 0, but, obviously, there is a physical limit approaching this, and also, for the power to stay the same, you would have an INFINANT voltage!! This is the stuff that R.F. BURNS are made of! And, when SWR is measured in a cable, current (and voltage) will vary, depending upon WHERE , in the cable that you measure current, (or voltage, even tho, the POWER must stay the same, again considering losses in the transmission line: As information, another Jim, NN7K

--
No trees were killed in the sending of this message. However, a large number of electrons were terribly inconvenienced
"Jim Kelley" <jwkelley@uci.edu> wrote in message news:4033F587.7C84E4F9@uci.edu...
>
>
> Cecil Moore wrote:
> >
> > Jim Kelley wrote:
> >
> > > Cecil Moore wrote:
> > >>Yep, and for the same power level, a higher impedance usually means
> > >>a lower current and vice versa.
> > >
> > > But the impedance *at* such points does not affect the current *at*
> > > those points?
> >
> > Cause and effect, Jim. Hint: The impedance equals v/i and is completely
> > virtual, i.e. clearly a result, not a cause.
>
> Little v over little i, Cecil? Are we talking instantaneous impedances
> now also? ;-)
>
> 73, Jim AC6XG

2780. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 01:35:05 UTC
From: richardharrison@webtv.net
Message-ID: <18932-403412C9-101@storefull-3257.bay.webtv.net>
Source record: 99753

Jim, AC6XG wrote:
"But the impedance "at" such points does not affect the current "at" such points?"

"At" is a perfectly good preposition. R-F current can`t properly be said to be "in" the wire due to skin effect.

The point I invoked was that at a certain distance along an antenna or a transmission line, or at a certain distance from some reference point there are values which are functions of the location. Often the load is the reference chosen for a transmission line. Often the tip end of a standing-wave antenna is used as a reference for distributions along an antenna. When we know how many degrees a point lies back from the open end of an ordinary standing-wave antenna a point is, we can predict many characteristics of that point.

Impedance is a function of position on an antenna or on a transmission line with reflections. Impedance is a voltage to current imposed on a point.

On a standing-wave antenna, there are two significant actions which are related but separate which I want to mention. The first is a somewhat uniform, but declining due to radiation, incident power flow toward the open-circuit end of the antenna. The second is a somewhat uniform, but declining reflected power flow back from the open-circuit end of the antenna which travels back toward the generator of the power.

Just as in a transmission line, were you to sense the power flowing each direction alone, via a directional coupler, no standing waves would be seen. It is only the superposition of the forward (incident) and reflected waves that produces the familiar display that we might sense with a slotted (trough) line. The value of standing waves is mainly as an indicator of mismatch.

A transmission line has an iron-clad Zo due to its construction which imposes the same voltage to current ratio (Zo) on incident and reflected waves at every spot along the transmission line. Not so with the surge impedance (Zo) of the antenna wire. Zo of the antenna wire can be measured and calculated. It is a function of position along tjhe antenna. For some calculations an average Zo of an antenna is useful.

I don`t remember everything from my studies over a half century ago. Even If I did, most readers would either drop off to sleep or find a more interesting activity.

I have no intention of trying to teach a course in antennas and transmission lines. My impression is that Cecil is right on target in

this thread.

Best regards, Richard Harrison, KB5WZI

2781. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 02:46:08 UTC
From: t-tammaru@comcast.net
Message-ID: <wtednSxqHcT6vqndRVn-jA@comcast.com>
Source record: 99754

"R. Torsten Clay" <tclay@qmc.ph.msstate.edu> wrote in message
news:m34qtpzgqu.fsf@qmc.ph.msstate.edu...
> This was with a Radio Shack chimney mount. Just the chimney mount by
> itself was too flimsy. I found that it was necessary to add a set of
> guys, attached just below the rotator and running to the roof
> corners. The guys made the whole thing much more secure and took some
> of the windload off of the chimney.
>
> Torsten
> N4OGW
>
What I did was to use a 10 foot Al pipe, and extend it all the way down to the roof. This was on the inside downslope side of the chimney. I fastened the pipe to the roof with a RS roof mount. This gave me a longer moment arm, and took the vertical weight off the chimney. I have a rotor and 18 el M2 432 antenna on it, about a foot above the rotor. Smaller than a large TV antenna.

I would not do remotely what has been suggested here.

Tam/WB2TT

2782. Re: Cardiod radiation pattern - 70 cm phased vertical dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 02:47:45 UTC
From: Ray Gaschk <rgaschk@astound.net>
Message-ID: <c11851$r93$1@news.astound.net>
Source record: 99755

Mike,

Take a look at LB Cebic's (W4RNL) Moxon square
articles, and particularly "Building a 2-Meter Moxon"

Shows directivity pattern you are looking for.

ray, w6fya
"MikeN" <mnewman@clear.net.nz> wrote in message
news:7jc830hu7ci6asva13lnmd88vqe618ujss@4ax.com...
> Hi
>
> I need to develop a cardiod radiation pattern for a 70 cm local
> coverage repeater - forward gain isn't too important, but radiation
> pattern is.
>
> The repeater is located on a coastline, any radiation out to sea is
> unwanted and will interfere at times of enhanced propagation with
> another repeater using the same frequencies, which has a wide area
> coverage from an elevated (1400 ft) site, approx 70 miles away across
> a sea path.
>
> The local coverage area is mainly inland, opposite in direction to the
> distant repeater, hence we need good forward radiation and good front
> to back ratio. We also need good side radiation to cover the
> developed coastal strip.
>
> A cardiod fits our needs exactly. A yagi will have nulls in the
> coverage area, and a corner reflector won't have sufficient radiation
> sidewards.
>
> Is it difficult to get the phasing and matching correct, for say a
> pair of phased dipoles at UHF, so as too get the correct element
> currents to develop the cardiod pattern?
>
> What calculation and adjustment processes should I use.
>
> I'd be grateful for some guidance on this scenario.
>
> Thanks
>
> MikeN ZL1BNB
>

2783. Cardiod radiation pattern - 70 cm phased vertical dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 04:21:25 UTC
From: MikeN <mnewman@clear.net.nz>
Message-ID: <7jc830hu7ci6asva13lnmd88vqe618ujss@4ax.com>
Source record: 99752

Hi

I need to develop a cardiod radiation pattern for a 70 cm local coverage repeater - forward gain isn't too important, but radiation pattern is.

The repeater is located on a coastline, any radiation out to sea is unwanted and will interfere at times of enhanced propagation with another repeater using the same frequencies, which has a wide area coverage from an elevated (1400 ft) site, approx 70 miles away across a sea path.

The local coverage area is mainly inland, opposite in direction to the distant repeater, hence we need good forward radiation and good front to back ratio. We also need good side radiation to cover the developed coastal strip.

A cardiod fits our needs exactly. A yagi will have nulls in the coverage area, and a corner reflector won't have sufficient radiation sidewards.

Is it difficult to get the phasing and matching correct, for say a pair of phased dipoles at UHF, so as too get the correct element currents to develop the cardiod pattern?

What calculation and adjustment processes should I use.

I'd be grateful for some guidance on this scenario.

Thanks

MikeN ZL1BNB

2784. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 04:58:54 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4034437b$1_1@corp.newsgroups.com>
Source record: 99756

Jim Kelley wrote:
> We don't talk about alternating current flowing in only one direction or
> another. That would be silly. It's something I've only seen you do.

How about a reference? _Alternating_Current_Circuits_, by Kerchner and
Corcoran, 3rd edition, page 97. It is an AC circuit. There is an arrow
labeled 'I' for the current. The arrow exists in only one direction.
We know the current is not flowing in only one direction in an AC circuit
but the 'I' arrow assigns a convention reference for direction of the AC
current flow. In the accompanying diagram, that 'I' is assigned a value
of I at zero deg. The source voltage is also an arrow labeled 'V' which
points in only one direction. So whadda mean "we" white man?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2785. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 06:15:35 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402182215.6fdbd8ed@posting.google.com>
Source record: 99757

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4033e31a_8@corp.newsgroups.com>...
> Mark Keith wrote:
> > You are causing more confusion than anything, because you don't
> > properly apply the antennas to their proper jobs/paths. You never saw
> > good results with yours because you misapplied it by using it for
> > short paths, and also stunted it's performance by using too few
> > radials. It never had a chance.
>
> I didn't say anything about my vertical, Mark. I merely quoted The
> ARRL Antenna Book and EZNEC results. Your (biased) argument is with
> them, not with me.

I guess so then. I know that applying that info to the real world will
not really pan out on longer low band paths despite what models might
say about gain at a certain lower angle. It's below 10 degrees or so
that really counts to long dx.
Biased? Maybe so. But at least I've actually used a good full sized
elevated vertical to be able to make an accurate opinion. Over a three
or four year time span I might add. It's not like I'm speculating or
just barking at the moon. I made nightly comparisons. I nearly wore my
antenna switch out switching back and forth. When on a long path at
1500 miles or farther, not a single time was the vertical "in my case
elevated ground plane" ever beat by the dipole I had at 36 ft. Not
one. Nada. Zip. And at that 1500 mile mark to CA., the vertical was
always 2 S units better. Always! Of course, you have fading where the
peaks of each polarization swap back and forth, but the peaks of the
vertical were always 2 s units stronger than the peaks of the
horizontal dipole. And this was reciprical. I didn't have to get on
the air reports to see which antenna was better to a certain place.
Yep, I guess you could call me biased...I'd even take this farther and
speculate that the dipole even at a half wave "65 ft on 40m" would
have trouble beating the elevated vertical I had on long paths. After
all, it's going to have to come up an average of 4 S units "average
report given to me over the 36 ft dipole" to a long DX haul site to do
it. "IE: TX to VK land". Do you think raising the dipole from 36 ft to
65 ft will give me 4 more S units to VK land? Maybe, but I really
doubt it myself. W8JI's tests of high 160m dipoles, vs tower
verticals tends to back me up on this. Tom once said he thought a
high 160m dipole would surely tromp over the verticals and he put one
up. I think modeling told him it would be better. But it didn't pan
out. I seem to recall him saying it was a waste of time and tower
space.. Or something along those lines...If I add to add anything for
the benefit of the original poster, it would be to consider the path

length, when deciding which to use. If he doesn't work dx, he probably doesn't want a vertical. He'd be better off with a dipole array. If he does, he oughta try one. If it's a good vertical, he'll like it. My dipole is so lame compared to my GP on 40m late at night, I actually quit getting on the air at night after I took it down. Instantly dropping 4 s units to VK land is no fun. I still have the antenna on the side of the house though, if I ever feel the need to brown the food over there. The guys running bobtail curtains, "basically a vertical phased array" did even better than I did. They were the only ones that could beat me consistantly every night.
And they were mounted on the ground to boot, compared to my GP at 36 ft.
There is power in the number of elements...:) MK

2786. Crazy question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 09:12:16 UTC
From: cme <zcadrian@yahoo.com>
Message-ID: <poadnf8jxtLP46nd4p2dnA@look.ca>
Source record: 99758

Can one clean the elements on a antenna, to bring it back to its former self , as when it was new, with some steel wool or something. Oil the attachment point so they dont corrode.

Is there any mainenance tips one can do for an antenna.

2787. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 09:40:35 UTC
From: cme <zcadrian@yahoo.com>
Message-ID: <0aOdnfPwVrFrGandRVn-hw@look.ca>
Source record: 99759

I"m half way between two transmission zones. So I wanted to build an antenna to see if its worth upgrading beyond a Delhi bowtie without a reflector. I have Buffalo 30 miles away and Toronto about the same in the opposite direction north/south. Dont want to go to a rotor.

I bought a radio shack antenna preamp, 15-1109 to see if it will do anything, waiting for the weather to improve to try it. Its not the best , but at least it will tell me something, before dropping a bigger buck. thinking of a yagi or something more directtional or omi directional. I need ideas.
so does anyone have a drawing where I can build an antenna where all the elements are attached, I thought the dipole was the only one attached and the directors were inactive?
I want to experiment before dropping the buck.
So I'm shooting for channel 57 which is north, but the rest of the channels are in the 20s south out of Buffalo coming in crystal clear. This Delhi boxtie is attached acouple inches from the vhf antenna, this is how who installed put it..

I thought they were suppose to be attached like 3 apart.???
I have many questions?
<yooser@fluadub.com> wrote in message
news:yooser-33C3E8.13054618022004@netnews.comcast.net...
> In article <G5ydnUE0p9_D97Ld4p2dnA@ctc.net>,
> "Ralph Mowery" <rmowery@ctc.net> wrote:
>
> > "Mikey" <ki6pr@arrl.net> wrote in message
> > news:402d6544_6@newsfeed.slurp.net...
> > > As an experiment, if you're looking for something for both channels 57
and
> > > 69, cut your yagi for the frequency right between them, and it should
> > cover
> > > both. #14 wire is relatively flimsy - are you using this indoors? If
> > not,
> > > you will want to tape it down to a frame of some type (wood, pvc,
etc.).
> > >
> >
> > Simple yagi antennas are relative narrow band antennas. They are not
too
> > effective for that broad of a frequency range. Also for many they are
more
> > like a low pass filter in that at frequencies below the designed one the
> > pattern is not too bad but going above the designed frequency the
pattern

> > falls apart very rapidly. If anything design the antenna for the
highest
> > frequency used.
> >
> >
> >
>
> This is not going to work. Yagi's are narrow band to begin with, lucky
> if you can get 6 mhz bandwidth. Using thin #14 wire makes it impossible.
>
> If you want to build this antenna, make it out of 1/2" copper water
> pipe. Cut the reflector to channel 69; the directors and dipole to
> channel 58.
>
> Putting a low noise amplifier at the antenna is a good idea. But good
> ones cost.
>
> I missed the setup to your question, are both channels in the same
> direction?

2788. Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 10:30:00 UTC
From: abcdstutzer@evard.ch
Message-ID: <aca3ec4c.0402190230.bb2d1cf@posting.google.com>
Source record: 99760
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

Hi,
Every one knows, that e.g. a simple RC-parallel circuit has a frequency-dependent impedance-characteristic (Absolute Value) - the impedance (Abs) raises as the Frequency approaches zero. As a formula: Zin = 1/(1/R + i w C) , where i ist the imaginary number and w the frequency.

Now the hard part. How does one create an Impedance, which decreases "slower", for frequencies close to zero but then decreases "faster" for higher frequencies, than the simple parallel RC-Circuit?
Is there some kind of procedure like the one for syntesizeing LC-Filters (Butterworth, Chebychev,..)?

Simply increasing C does not really help, because this equals a factoring of the frequency.
Increasing R does not help as well, as it seems.

I hope one of you cracks can help me out.
So far, thanks for reading.
Diego Stutzer

2789. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 11:07:14 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <pN0Zb.3320$C21.1209@fed1read07>
Source record: 99761

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:c10ou9$1k3$1@newshost.mot.com...
>
> "Gary Schafer" <gaschafer@comcast.net> wrote in message
> news:0p7730t7nbsfolp2lculd2278tgqnt36ou@4ax.com...
> > On Wed, 18 Feb 2004 03:17:37 -0800, "Ed Price" <edprice@cox.net>
> > wrote:
> >
> >
> > >
> > >I agree with Steve's observations (although I prefer that he
> bottom-post),
> > >but I would still try to keep the process simple.
> > >
> > >First, you know the very limited frequency range of the offending
signal
> > >(you said it slowly drifts across your repeater input at 145.41 MHz).
So
> > >that means you know which way it drifts, about how fast the frequency
> slew
> > >is, and about how far it shifts. Further, you know the characteristic
> > >modulation on the signal. And, to make it even easier, the signal isn't
> > >playing tricks on you to spoof your search. Finally, you must have some
> idea
> > >by now as to when the signal is most likely to be present.
> > >
> > >Time to get a directional antenna (Yagi, log periodic, a loop resonant
to
> > >145 MHz, even an inefficient horn) and look for the signal. I would use
a
> > >spectrum analyzer (those HP boxes are too big and heavy, so look for a
> > >Leader or Anritsu. Why not turn this into a real learning experience?
Why
> > >not build a 2 meter version of the Poor Man's Spectrum Analyzer into a
> > >briefcase, maybe updating the display by using a small laptop?
> > >
> > >As a first assumption, I suppose we can assume that the offending
signal
> > >isn't in a vehicle. So get out and grab a bearing when you can.
> Obviously,
> > >you have to be prepared to get into the field quickly and efficiently
to
> > >make your observations. After a couple of bearings, at least you will
> guess

> > >which side of town to look first.
> > >
> > >Hey, if this was easy, then T-hunts would be no fun, and clandestine
> radio
> > >would be a short path to a bullet.
> > >
> > >Ed
> > >wb6wsn
> >
> > It sounds a lot easier than it is. Sometimes the interference that you
> > hear is the result of a spur from one transmitter getting into another
> > and the IM product of the second is what you hear. Try and track that
> > one down!
> > The most successful way I have seen is to first find the general
> > direction the problem is coming from (spectrum analyzer and
> > directional antenna) and then spending many hours watching the
> > spectrum analyzer to see what transmitters come on the air when the
> > interference is present.
> >
> > Problem is that they are not always there. Temperature difference at a
> > particular site can cause the spur to change or not be there. Amount
> > of use of the transmitter can make a difference. These things can
> > drift across the whole VHF band or more.
> > 73
> > Gary K4FMX
> >
>
> OK. Got it. Remember to not eliminate Tx spur / IM. We had one spur
> occurrence last year and the two repeaters were >20 miles apart...but it
was
> a pretty bit Tx spur. Interesting how this PA spur just landed on the
other
> repeater input so nicely.
> Steve
>
>

If it had landed on some other frequency, you would never have noticed it.
The odds of it affecting you were really quite low, despite Murphy's Law.
And logically, there's nearly an infinite number of other problems that
could happen, given just the right tweak or failure someplace.

Ed
wb6wsn

2790. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 11:29:16 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40349ef9_4@corp.newsgroups.com>
Source record: 99762

Mark Keith wrote:
> Yep, I guess you could call me biased...I'd even take this farther and
> speculate that the dipole even at a half wave "65 ft on 40m" would
> have trouble beating the elevated vertical I had on long paths.

But, Mark, you are neglecting physical efficiency. Divide the performance
by the amount of metal required for each antenna and see what you get. :-)
My dipole uses 1/2WL of wire. Your vertical uses how many wavelengths of
wire?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2791. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 11:32:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40349fc7_4@corp.newsgroups.com>
Source record: 99763
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

Diego Stutzer wrote:
> Now the hard part. How does one create an Impedance, which decreases
> "slower", for frequencies close to zero but then decreases "faster" for
> higher frequencies, than the simple parallel RC-Circuit?
> Is there some kind of procedure like the one for syntesizeing LC-Filters
> (Butterworth, Chebychev,..)?

For emulation modeling, there exist programmable resistors,
capacitors, and inductors. Is that what you have in mind?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2792. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 12:32:54 UTC
From: CWatters <colin.watters@pandoraBOX.be>
Message-ID: <W12Zb.6714$eN.366633@phobos.telenet-ops.be>
Source record: 99764
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

or perhaps...
http://rfdesign.com/ar/radio_interactive_directcoupled_filter/

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40349fc7_4@corp.newsgroups.com...
> Diego Stutzer wrote:
> > Now the hard part. How does one create an Impedance, which decreases
> > "slower", for frequencies close to zero but then decreases "faster" for
> > higher frequencies, than the simple parallel RC-Circuit?
> > Is there some kind of procedure like the one for syntesizeing LC-Filters
> > (Butterworth, Chebychev,..)?
>
> For emulation modeling, there exist programmable resistors,
> capacitors, and inductors. Is that what you have in mind?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2793. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 13:01:33 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <skc9309h4l94r08pu9afpgn2sn3qbq0e0p@4ax.com>
Source record: 99765

On Tue, 17 Feb 2004 19:43:57 -0500, <w4udx@bellsouth.net> wrote:
>Buy a real 10M mobile antenna and forgeddaboudit ...

Actually, I have some discontinued big megawatt (!!) "truck mirror
mount" CB whips I bought from RS on clearance last year for $1.03
(down from over $50). These can be snipped for 10M, but they are not
as convenient as a mag mount.

Ken KC2JDY
Ken
(to reply via email
remove "zz" from address)

2794. Re: Antenna Rotator problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 14:24:40 UTC
From: Sarge <sarge43@ev1.net>
Message-ID: <1039hpcvfu64f2@corp.supernews.com>
Source record: 99766

"Eric" <ericdwong@yahoo.com> wrote in message
news:7b667fe1.0401290800.2f64f638@posting.google.com...
> Hi all, on my TV/scanner/Fm antenna stack I have a problem, Im using
> an old channel master rotator and it does not "hold" the antenna from
> rotating in high wind. Are the "brakes" burnt out on it? Is there an
> easy repair? or should I just buy a new unit.

Oh yeah, bad brake. You should be able to fix it yourself depending on what
the cause is.

2795. Re: Antenna Maintenance (Was Crazy question)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 14:43:25 UTC
From: Incognito <BLB@sero.net>
Message-ID: <hY3Zb.3927$C21.1823@fed1read07>
Source record: 99767

The advice I received from an antenna guru (for what it is worth) is

"
For cleaning aluminum tubing, an antenna guru recommends the use of #0 steel wool, along with dishwashing detergent. First wet the aluminum tubing with water and wet the steel wool. Add a small amount of dishwashing detergent to the steel wool and then scrub the aluminum. Rinse out the steel wool periodically with water. Then add more dishwashing detergent to the steel wool and clean again. Rinse off the aluminum tubing periodically. After cleaning a piece of aluminum tubing, rinse it thoroughly with clean water and then dry it off with a clean rag. When assembling an antenna after cleaning the aluminum, apply a very thin film of Penetrox-A anti-oxidant to all of the aluminum-to-aluminum connections. Unless you totally disassemble and clean the traps, never attempt to clean the outer aluminum shells of antenna traps as water and steel wool fragments can enter the traps causing shorts and excessive trap moisture content.

When assembling any aluminum antenna, put a thin layer of based-based anti-seize compound on all aluminum to aluminum joints. These are Penetrox-A from the Burndy Corporation or another is Noalox. Never varnish any antenna - the varnish penetrates into the joints and causes continuity problems. Painting antennas for stealth can be done. Disassemble the antenna, apply paint, then scrape away any paint where the aluminum makes an electrical connection."

Comments welcome

--
Incognito By Necessity (:-(

If you can't convince them, confuse them.
- - -Harry S Truman

"cme" <zcadrian@yahoo.com> wrote in message
news:poadnf8jxtLP46nd4p2dnA@look.ca...
> Can one clean the elements on a antenna, to bring it back to its former
self
> , as when it was new, with some steel wool or something. Oil the
attachment
> point so they dont corrode.
>
> Is there any mainenance tips one can do for an antenna.
>
>

2796. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 14:54:22 UTC
From: John Jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <c12ibh$r2i$1@newsg3.svr.pol.co.uk>
Source record: 99768
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

Diego Stutzer <abcdstutzer@evard.ch> wrote in message
news:aca3ec4c.0402190230.bb2d1cf@posting.google.com...
> Hi,
> Every one knows, that e.g. a simple RC-parallel circuit has a
> frequency-dependent impedance-characteristic (Absolute Value) - the
> impedance (Abs) raises as the Frequency approaches zero. As a formula:
Zin
> = 1/(1/R + i w C) , where i ist the imaginary number and w the frequency.
>
> Now the hard part. How does one create an Impedance, which decreases
> "slower", for frequencies close to zero but then decreases "faster" for
> higher frequencies, than the simple parallel RC-Circuit?
> Is there some kind of procedure like the one for syntesizeing LC-Filters
> (Butterworth, Chebychev,..)?
>
> Simply increasing C does not really help, because this equals a factoring
of
> the frequency.
> Increasing R does not help as well, as it seems.
>
>
> I hope one of you cracks can help me out.
> So far, thanks for reading.
> Diego Stutzer

You need to graph out the required frequency-impedance slope then approximate the required roll off rates using a segmented breakpoint scheme consisting of a number of CR series sections in parallel. Essentially it's a straight line approximation to the required Z-F curve. The CR's adding zeroes as the frequency goes up.

Estimating the individual time constants can be irksome as each has effect outside it's area of interest. Use a 'least-squares approximation' to obtain a best curve fit for the number of sections involved.

It's an interesting subject but I've come across nothing out there that's of use.

regards
john

2797. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 15:52:09 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c12m12$1c6dm2$1@ID-150848.news.uni-berlin.de>
Source record: 99619

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c0tk22$1audle$1@ID-150848.news.uni-berlin.de...
> I've no real experience of putting up antennas on the chimney of a house.
>
> Obviously, I must not overload the chimney breast.
>
> I'm thinking about putting up the following:
>
>
> ______ Discone
> / | \
> __ / || \
> A |
> __ ___|x___ 5 ele.2m yagi
> |
> B | |
> __ |x| 5 ele. marine yagi
> | |
> C |
> | |
> __ |x| 5 ele. FM yagi.
> | |
> D |
> |
> __ |
> / \ Rotator
> /__\
> |
> | ______
> | | | Chimney
> | | |
> | |
>

This is too ambitious, I realise that now. I think one 4 or 5 element FM or
2m yagi is about what would be acceptable. And the antenna not far above the
rotator.

2798. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 16:13:54 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <71o93011n5kmj1u49jgldgt2go93bm3ji1@4ax.com>
Source record: 99620

On Thu, 19 Feb 2004 13:01:33 GMT, Ken <cprstn54zz@att.net> wrote:

>Actually, I have some discontinued big megawatt (!!) "truck mirror
>mount" CB whips

Ooops. Before I get inundated with derisive emails, that should have
been "kilowatt."

I just added half a gig of memory to my PC to handle Bill's bloatware
and must have lost perspective of prefixes.

The fact that I have received no comments shows that no one is
surprised that some CB'ers are operating at the megawatt level!

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

2799. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 16:18:27 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4034e2bf_7@corp.newsgroups.com>
Source record: 99621

Ken wrote:
> The fact that I have received no comments shows that no one is
> surprised that some CB'ers are operating at the megawatt level!

Some of them think all that forward power is being accepted
by the antenna. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2800. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 16:49:18 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <TbCdnYZDgrZidandRVn-jQ@comcast.com>
Source record: 99622

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4034e2bf_7@corp.newsgroups.com...
> Ken wrote:
> > The fact that I have received no comments shows that no one is
> > surprised that some CB'ers are operating at the megawatt level!
>
> Some of them think all that forward power is being accepted
> by the antenna. :-)

I sometimes stop into CB shops, just for the comic relief.

500W amplifiers, with big heavy cables, and 10A fuses...
5000W antennas, with RG-58 coax in the package..
"ground plane" extenders, consisting of three 3" stubs that screw in to the
antenna near the base..

Just the antenna names are worth a laugh, "Penetrator", "Intruder",
"Dominator"..

Still, I run a CB on long trips, because I've never had any luck getting
road info on the ham bands.

Lately, there's a big trend to tilt the antennas on trucks forward by 20-45
degrees.
Not sure what that's about.

2801. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 16:51:39 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <8JmdnQPg6-UWdKnd4p2dnA@comcast.com>
Source record: 99623

> > Obviously, I must not overload the chimney breast.

Chimneys have surprisingly little structural strength.
I'd have more faith in a vent pipe mount. At least the pipe will bend,
instead of cracking.

2802. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 17:21:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0nr9301ua7d74os2eo1sueh0s5nda2re8l@4ax.com>
Source record: 99624

On Thu, 19 Feb 2004 05:29:16 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>But, Mark, you are neglecting physical efficiency.

On 18 Feb 2004 22:15:35 -0800, nm5k@wt.net (Mark Keith) wrote:

> After
>all, it's going to have to come up an average of 4 S units "average
>report given to me over the 36 ft dipole" to a long DX haul site to do
>it. "IE: TX to VK land".

Hi Mark,

The Flat Earth Socialists invent new forms of "efficiency" to argue
against success. With their logic, a dummy load is the world's best
antenna (and quiet too). The are obviously seduced by their own math
models where less current emerges from a resistor than goes in. ;-)

73's
Richard Clark, KB7QHC

2803. Re: G5RV or 35 ft center fed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 17:23:34 UTC
From: F8BOE <"f8boe free.fr">
Message-ID: <4034f11f$0$21692$636a15ce@news.free.fr>
Source record: 99625

Hello,

Forget the G5RV and get a Levy coupler to feed your 35 ft dipole via the twinlead!

73 de F8BOE Olivier ...-.-

2804. Re: Antenna Maintenance (Was Crazy question)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 17:35:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kds930lnm9ro59s7g5nft4jkant7kqee9c@4ax.com>
Source record: 99626

On Thu, 19 Feb 2004 06:43:25 -0800, "Incognito" <BLB@sero.net> wrote:
>Comments welcome

Hi OM,

Baking Soda and Vinegar in the place of detergent. Much more
effective cleaner.

As for
> Never varnish any antenna ...
> Painting antennas for stealth can be done.
Is obviously contradictory - and within the space of two sentences.
At best, its only benefit is cosmetic and bare oxidized aluminum is
fairly invisible as it is. Attempts to "camouflage" it only attract
the eye.

73's
Richard Clark, KB7QHC

2805. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 17:47:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c1t93092gd1ftev5768nd0dsnkjc38th1m@4ax.com>
Source record: 99627

On Thu, 19 Feb 2004 04:40:35 -0500, "cme" <zcadrian@yahoo.com> wrote:

>I"m half way between two transmission zones. So I wanted to build an antenna
>to see if its worth upgrading beyond a Delhi bowtie without a reflector. I
>have Buffalo 30 miles away and Toronto about the same in the opposite
>direction north/south. Dont want to go to a rotor.

Remove the reflector (if not already gone).

>I bought a radio shack antenna preamp, 15-1109 to see if it will do
>anything, waiting for the weather to improve to try it. Its not the best ,
>but at least it will tell me something, before dropping a bigger buck.

It offers more gain than you will ever obtain from a new antenna. In
fact it may have too much gain. This will be discovered with TV
channels "blacking out" when you overdrive the set's AGC. As the gain
is adjustable, be prepared to experiment here.

>thinking of a yagi or something more directtional or omi directional. I
>need ideas.

Indeed. Omni-directional brings nothing new to the table and you
stand to lose through increased ghosts. Something more directional
without a rotator condemns you to select Toronto OR Buffalo. What you
have is a paradox: your goal conflicts with a newer resolution.

>I want to experiment before dropping the buck.

You spent as much as you need to. 30 miles is actually very close,
and the only further investment is moving what you already have
straight up.

>So I'm shooting for channel 57 which is north, but the rest of the channels
>are in the 20s south out of Buffalo coming in crystal clear. This Delhi
>boxtie is attached acouple inches from the vhf antenna, this is how who
>installed put it..
>
>I thought they were suppose to be attached like 3 apart.???

3 what? Inches? Maybe OK if it part of the same antenna. 3 feet is
OK even more so.

73's
Richard Clark, KB7QHC

2806. Re: Antenna Maintenance (Was Crazy question)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 18:11:23 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <OvGdnWpFJJCmYand4p2dnA@comcast.com>
Source record: 99628

> At best, its only benefit is cosmetic and bare oxidized aluminum is
> fairly invisible as it is. Attempts to "camouflage" it only attract
> the eye.

I had some surprising results with flat black paint on antennas.

Would you believe people walking right by a 2 x 3' horn antenna, mounted at eye level, and not noticing it? Another foot closer, and they would have walked right into it.

Somehow, flat black makes things "dissapear" against normal backgrounds. Once you know it's there, you see it.

White paint is much more obvious. We had calls within days after replacing a repeater antenna. The replacement was in a 1.5" diameter radome, and the closest viewing point where you can actually see the antenna is about half a mile away, due to the location of the antenna on the roof, and the height of the building relative to the surrounding buildings.

2807. Mark Keith?? vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 18:12:40 UTC
From: bb <bb@private.com>
Message-ID: <4034FC98.8221DBEC@private.com>
Source record: 99631

Please describe your vertical in detail.

Does it have to be elevated, # of radials, length of radials, etc.

VK is exactly where I'm trying to go on 40m from the NW US.

2808. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 18:19:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4034fe7e_2@127.0.0.1>
Source record: 99629

Richard Clark wrote:
> The are obviously seduced by their own math
> models where less current emerges from a resistor than goes in. ;-)

What does your lumped circuit math model say about resistors used
on a frequency where the resistor plus its leads is 1/4WL long? At
that frequency, why are you surprised that the current in is different
from the current out (in the presence of standing waves)?

Heck, I have seen a GDO find the resonant frequency of a resistor
with the leads shorted together (that's the entire circuit).
Do you think the current is the same everywhere in a resistor
that is a 1/2WL loop?
--
73, Cecil, W5DXP

2809. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 18:22:38 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4034FEEE.D912D6CC@uci.edu>
Source record: 99630

Richard Harrison wrote:
>
> Jim, AC6XG wrote:
> "But the impedance "at" such points does not affect the current "at"
> such points?"
>
> "At" is a perfectly good preposition. R-F current can`t properly be said
> to be "in" the wire due to skin effect.

I agree. Cecil doesn't. Perhaps you missed the post where he took
issue with the term.

FB on all the rest. We're on the same page.

> My impression is that Cecil is right on target in
> this thread.

Even his notion of an alternating current standing wave having a net
"direction" in which current flows?

73, Jim AC6XG

2810. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 18:41:32 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <4035035C.9BF41A84@uci.edu>
Source record: 99632

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > We don't talk about alternating current flowing in only one direction or
> > another. That would be silly. It's something I've only seen you do.
>
> How about a reference? _Alternating_Current_Circuits_, by Kerchner and
> Corcoran, 3rd edition, page 97. It is an AC circuit. There is an arrow
> labeled 'I' for the current. The arrow exists in only one direction.
> We know the current is not flowing in only one direction in an AC circuit
> but the 'I' arrow assigns a convention reference for direction of the AC
> current flow. In the accompanying diagram, that 'I' is assigned a value
> of I at zero deg. The source voltage is also an arrow labeled 'V' which
> points in only one direction. So whadda mean "we" white man?

Ya gotta be kidding, Cecil. Do you really not know that the arrow
simply indicates the direction of positive current flow?

Yikes.

73, Jim AC6XG

2811. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:16:26 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40350bd5$1_2@127.0.0.1>
Source record: 99634

Jim Kelley wrote:
> I agree. Cecil doesn't. Perhaps you missed the post where he took
> issue with the term.

Looks like you missed that post, Jim. I have never taken issue
with skin effect.

> Even his notion of an alternating current standing wave having a net
> "direction" in which current flows?

Please stop misrepresenting what I posted, Jim. The AC current
in standing waves possesses an instantaneous direction of current
flow which reverses every 1/2 cycle (or 1/2 WL). I have made no
assertions about waves, only about dQ/dt, which is current involving
electron charge carriers. A positive dQ/dt is generally considered
to be flowing toward the load. A negative dQ/dt is generally
considered to be flowing toward the source.

It's pretty sad to have to resort to misrepresentations to try to
save face. You still don't seem to comprehend the difference between
photons (waves) and electrons (charge carriers). Accelerated electrons
launch photon waves but are themselves not much affected by that action.
--
73, Cecil, W5DXP

2812. Re: Antenna Maintenance (Was Crazy question)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:17:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dg2a30hu6i3j00c83r8dd9igtom32u47c2@4ax.com>
Source record: 99633

On Thu, 19 Feb 2004 13:11:23 -0500, "Dave VanHorn"
<dvanhorn@cedar.net> wrote:
>Somehow, flat black makes things "dissapear" against normal backgrounds.
>Once you know it's there, you see it.

Hi Dave,

Now the issue becomes what is a "normal background?" Especially for
an antenna. Almost every color is darker than the sky and lends the
eye catching feature of drawing attention to it. It took years for
the Army to accept that lighting up large equipment located visually
against the sky (like on a ridge line) made it "disappear."

Oxidized aluminum does a very effective job of reflecting the
neighboring colors without specular hi-lights and thus blending in
quite well.

In reality, such disappearing acts arrive only through the viewer
becoming so used to seeing it that they are no longer notable.

73's
Richard Clark, KB7QHC

2813. Re: Best antenna (preferrably wire)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:18:22 UTC
From: Len <len2004@theuminas.com>
Message-ID: <40350bfd$1_2@corp.newsgroups.com>
Source record: 99635
Cross-posted to: rec.radio.amateur.antenna,alt.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc

The best antenna is not the longest thing you can put up, unless one of the many minor lobes you create will point exactly where you want to go at a radiation angle you need, and this is highly unlikely, but it does sometimes happen.

The best thing to do is decide where you'd like to reach, for example, which continent. Are you a DXer or do you do mostly local rag chews? What frequency bands would you like to operate, and what size constraints do you have to live with? Are there any natural supports you'd like to take advantage of? Do you need multiband operation? Do you have an deed restrictions on what you can put up?

Study the radiation patterns of dipoles, verticals and if you have the space, long wires.

Do you have a tuner?

Remember, no antenna creates RF to get "gain", they only focus it. The ideal RF antenna would radiate equally well in all directions. Since you live on earth, the effect of height is an issue, as is the ground effect on the pattern.

The best antenna to start with for a newbie is a windom cut for the lowest band that will fit on your lot. With this kind of antenna you can run all harmonic bands (ie 80M will cover 40M,20M,10M while 40M will cover 40M, 20M, 10M) quite well and not require a tuner. Several of the WARC bands will work ok too but the SWR may be a little higher. I regularly use my 80M windom on all bands here, most of them without a tuner, and the rigs tuner is good enough on the one or two where the SWR is just over 2:1 which isn't an issue, it just causes the radio to reduce power.

The second best antenna is a vertical, but most newbies screw up the installation. You either need 4 elevated radials or you need lots of radials on the ground. Lots means 16 or more. Again, the literature is full of information on these topics, and there was even an article a few months ago in QST I think where someone did a study on the best use of the wire for a vertical ground plan - ie more or longer radials for a given length of wire to optimize results.

The vertical is a good newbie antenna because it radiates equally well (some say equally poorly) in all directions. Although some of that will go to places where no one lives, if you have a good ground plane the low angle of radiation will be to your advantage. One caution, if you live with a lot of neighbors around verticals pick up noise more than horizontal antennas and this can be a big issue. In that case stick with a windom.

If you have the money and the time and a computer, try purchasing an antenna modeling software packet. I use NEC4WIN but there are many. With this, you can model various wire configurations quickly and see EXACTLY what they will do in terms of gain/loss/pattern etc. This will save you a lot of time and money building things that don't work.

Finally, if your interest is local ragchewing, a low horizontal antenna may be just fine.

I have an extensive antenna farm here, quads, yagis, dipoles, verticals, etc. and over the past 35 years I've tried everything. The best overall antenna, the one that I keep coming back to as a standard or default for comparison is the windom. This off center fed device is fed at a point where the SWR is tolerable on harmonically related bands using a matching balun. My favorite was made by Fritzel, but I don't think they make them anymore, but an internet search will turn up several suppliers and/or plans for your own. The biggest issue in a windom is just the balun, and I recommend CWS Bytemark products if you can get them.

Again though, remember that once the lengh of the wire is greater than 1/2 wavelengh the pattern starts to form lobes that can give you a great signal - somewhere - and an equally poor signal in other places. This is true for a windom too, on its harmonic bands. That is why 40 meter windoms exist (besides the fact that they are shorter).

One of the best ways to solve your problem is by reading. Fortunately these days you can read about antennas for hours on the internet at no cost, but the best books I've found over the years are the ARRL Anthology series and of course the ARRL antenna book.

73,
WT6G
PS Do not waste your time and reply to this email address. It won't work.

"ary" <send.mail@dev.null.net> wrote in message
news:pan.2004.01.19.17.46.17.807190@dev.null.net...
> Vaughn,
>
> It's quite easy: your best bet is the maximum length of wire you can keep
> in your backyard AND as high up in the air as you can afford (trees,
> towers, chimneys etc.)
>
> To prevent RFI and TVI, make your antenna symmetrical. Feed it with an
> open line, and connect the open line with your TX with an appropriate
> coupler (the ARRL Handbook is a good source for information).
>
> Please note you do not need to use a thick gauge of copper wire. Even a
> thin gauge of stainless steel wire will do.
>
> You will be pleased very much by the results !!
>
> 73 de PA0ARY
>

> On Sat, 03 Jan 2004 18:38:59 +0000, Vaughn Combs wrote:
>
> > I have a few questions and I thought that this may be the group that could
> > help. I have a nice sized backyard and would like to construct an antenna
> > that would give me good performance on 80-10m bands.
> >
> > The convenient dimensions would put a support (far end) at either 92 feet
> > from the back of the house (support exists that is about 15-20 feet up) or
> > 120 feet from the back of the house (mast anchored to the other side of a
> > shed could easily be installed. Or a more inconvenient support could be
> > erected up to 300 feet out (no support buildings) at the absolute far end of
> > the property. The width of the property as seen looking out the back window
> > is about 65 feet (no supports existing on either side).
> >
> > Special circumstances and constraints:
> >
> > -- No tall trees on the property.
> >
> > -- Attic shack (attic window is probably about 25 feet up). Need to keep to
> > the attic.
> >
> > -- Cable run from back of house to operating position within the attic would
> > be approximately 25 feet
> >
> > -- MUST eliminate RFI in the shack and house.
> >
> > My current setup is an end-fed longwire that works well on all bands except
> > 40m (rig shuts down as I am dipping the SWR to almost 1:1 ;-). I threw up
> > the wire as winter was upon me. I have been off the air for almost 10 years
> > and REALLY wanted to get on the air again.
> >
> > While the longwire is performing quite well with the exception of 40m I am
> > getting a ton of RF in the shack and it is blanking out TVs and creating
> > loud humming in speakers with 100W from the XMTR. I realize that this is
> > most likely due to the fact that I have inefficient RF ground and I have cut
> > and run radial at 1/4 wave for each band and ran them under the eaves up

> > here in the attic. This has not solved the problem. I am friendly with
all
> > of my neighbors and have visited them and did testing on the bands with
them
> > on the phone. They are not experiencing any problems. My wife, while
> > understanding, would REALLY like the problem to go away ;-)
> >
> > My main goal is to build an antenna that will solve the aforementioned
RFI
> > problem and that will provide good performance given my constraints.
> >
> > Any ideas would be GREATLY appreciated.
> >
> > Many Thanks and 73,
> > Vaughn
> > N2BHA
>

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2814. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:18:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bt2a30hi2apefish2h9e15aie318hh7ui7@4ax.com>
Source record: 99636

On Thu, 19 Feb 2004 12:19:20 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>> The are obviously seduced by their own math
>> models where less current emerges from a resistor than goes in. ;-)
>
>What does your lumped circuit math model say about resistors
I'm not interested in Flat Earth Socialist rhetoric.

2815. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:22:39 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40350d49$1_2@127.0.0.1>
Source record: 99637

Jim Kelley wrote:
> Ya gotta be kidding, Cecil. Do you really not know that the arrow
> simply indicates the direction of positive current flow?

You have been making fun of me for using such an arrow, Jim.
Now it appears that you have cracked open a reference book
and realize how wrong you were. This is what I have been saying
all along. The arrow indicates the direction of current flow
when I* cos(phase_angle) is positive. 1/2 cycle later, the
current is flowing in the opposite direction, i.e. I*cos(phase_
angle) is negative. That's what you have been disagreeing with
and pissing and moaning about for about a week now. You said
direction of current flow and cos(phase_angle) were unrelated.
--
73, Cecil, W5DXP

2816. Re: Antenna Maintenance (Was Crazy question)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:28:38 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <m4KdnVV7O_DLk6jd4p2dnA@comcast.com>
Source record: 99638

> In reality, such disappearing acts arrive only through the viewer
> becoming so used to seeing it that they are no longer notable.

With the flat black, I had the opposite experience.
I had people standing within arm's reach, of a large antenna, mounted at eye level, asking me where the antenna is.
Once they saw it, they could always see it.

Very spooky.

Obviously it's at least partially psychological.

2817. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:32:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40350f8d_2@127.0.0.1>
Source record: 99640

Richard Clark wrote:
> I'm not interested in Flat Earth Socialist rhetoric.

Looks like you are trying to delete and hide the fact that
a resistor plus its leads has a resonant frequency that can
be measured. At that resonant frequency, do you think the
current is the same everywhere along the resistor and leads?
Remember, you were scornful of such a concept.

What I have done is presented a situation where lumped circuit
theory totally falls apart as it does in physically large mobile
loading coils. That's one reason that distributed network theory
was invented.

Flat Earth thinking equates to using lumped circuit theory for
applications where it simply doesn't work.
--
73, Cecil, W5DXP

2818. Use a Windom!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:33:02 UTC
From: Len <len2004@theuminas.com>
Message-ID: <40350f67$1_2@corp.newsgroups.com>
Source record: 99639

Gerry,

102 Feet is plenty for an 80 meter windom. This will give excellent performance on all bands, only require a tuner on 10 Mhz., and the rigs tuner will work fine, and it will blow away any G5RV antenna on any band. They are also more rugged than a G5RV.

My favorite was made by Fritzel, if you can find one.

Since they are 120 feet long, just hang the extra vertically at the ends with a small weight attached so the wind does not tangle it.

Also, the off center feed usually works out better for most installations becuase most of us are not lucky enough to have our shack directly under the antenna - although some cartoons stereotype us that way!

You will not be dissapointed.

73,
Len
WT6G
Do not reply to len2004@theuminas.com

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2819. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:49:54 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40351362.15B509FE@uci.edu>
Source record: 99643

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > Ya gotta be kidding, Cecil. Do you really not know that the arrow
> > simply indicates the direction of positive current flow?

> The arrow indicates the direction of current flow
> when I* cos(phase_angle) is positive. 1/2 cycle later, the
> current is flowing in the opposite direction, i.e. I*cos(phase_
> angle) is negative.

The arrow does not indicate "the direction AC is flowing" - which is what you've been trying to imply. Moreover, it has nothing to do your claim that more alternating current flows into one end of an inductor than flows out of the other. As I have been saying all along, that particular notion is invalid.

When the value I in the expression i = I*sin(w) for a standing wave happens to be greater at one end of a transmission line than the corresponding value of I at the other end of the transmission line, it is NOT true, or correct to say that more current is flowing into one end than is flowing out of the other. It's totally bogus electronics. I wish you would be courageous enough to stand corrected on that point.

73, Jim AC6XG

2820. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:50:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cn4a309gandtmt6c9adfc57gcpko8bdh2l@4ax.com>
Source record: 99641

On Thu, 19 Feb 2004 13:32:15 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Richard Clark wrote:
>> I'm not interested in Flat Earth Socialist rhetoric.
>
>Looks like you are trying to delete and hide
Mark's experience eclipses this nonsense of Flat Earth Socialist
rhetoric.

2821. Re: Antenna Maintenance (Was Crazy question)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 19:53:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0r4a301c3h3end4hj3qdkt9eekf6e98c8t@4ax.com>
Source record: 99642

On Thu, 19 Feb 2004 14:28:38 -0500, "Dave VanHorn"
<dvanhorn@cedar.net> wrote:
>Obviously it's at least partially psychological.

You shoulda asked them to point at the air duct. Their arms would've
sprung up automatically to the horn. Not seeing an "antenna" does not
make the antenna invisible. :-)

73's
Richard Clark, KB7QHC

2822. Re: Antenna Maintenance (Was Crazy question)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 20:11:19 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <1dGdnaJicfTKhajd4p2dnA@comcast.com>
Source record: 99644

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0r4a301c3h3end4hj3qdkt9eekf6e98c8t@4ax.com...
> On Thu, 19 Feb 2004 14:28:38 -0500, "Dave VanHorn"
> <dvanhorn@cedar.net> wrote:
> >Obviously it's at least partially psychological.
>
> You shoulda asked them to point at the air duct. Their arms would've
> sprung up automatically to the horn. Not seeing an "antenna" does not
> make the antenna invisible. :-)

You had to be there. We were talking about the antenna, shape size etc, the people knew what they were looking for, and had seen unpainted versions recently.

2823. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 20:19:45 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40351aac$1_2@127.0.0.1>
Source record: 99645

Richard Clark wrote:
> Mark's experience eclipses this nonsense of Flat Earth Socialist
> rhetoric.

Mark hasn't tried a 130 foot dipole on 10m at the same
height as his vertical in the direction of one of the
four 11 dBi at 7 deg lobes. Even with a perfect ground,
his vertical tops out at about 5 dBi, a full s-unit
below the dipole's best lobes.

Flat Earth thinking equates to asserting that a vertical
monopole will beat a +11 dBi beam (or lobe).
--
73, Cecil, W5DXP

2824. Re: Extra Class License Study Material

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 20:29:45 UTC
From: mikea@mikea.ath.cx
Message-ID: <c136bp$563$8@puck.litech.org>
Source record: 99646

W4JLE <w4jle(remove to reply)@pbtcomm.net> wrote:

[snippety]

> It is Kenwood, Icom or whatever's responsibility that my station works
> correctly. I can't be bothered by some stupid rules or code as in inhibits
> my right to everything.

> Member "No code, No test, Know Nothing International"

I think you forgot the <dws> and </dws>[1] tags on your post.

[1] "dripping with sarcasm" and "stop dripping with sarcasm"

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

2825. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 20:42:28 UTC
From: tdonaly@aol.com
Message-ID: <20040219154228.25887.00000006@mb-m01.aol.com>
Source record: 99647

Richard Clark wrote,
>
>On Thu, 19 Feb 2004 13:32:15 -0600, Cecil Moore
><Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>Richard Clark wrote:
>>> I'm not interested in Flat Earth Socialist rhetoric.
>>
>>Looks like you are trying to delete and hide
>Mark's experience eclipses this nonsense of Flat Earth Socialist
>rhetoric.
>

Hi Richard,
Cecil doesn't believe in measurement and experience. He's the
last of the Scholastics.
73,
Tom Donaly, KA6RUH

2826. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 20:53:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <de8a30lqh7462q3k5c5eod06c7etlpf4qg@4ax.com>
Source record: 99648

On Thu, 19 Feb 2004 14:19:45 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Richard Clark wrote:
>> Mark's experience eclipses this nonsense of Flat Earth Socialist
>> rhetoric.
>
>Mark hasn't tried
You have tried even less = more nonsense of Flat Earth Socialist
rhetoric.

2827. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 20:56:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kg8a30hm3im1nrn84uo8rip122efs2u1rn@4ax.com>
Source record: 99649

On 19 Feb 2004 20:42:28 GMT, tdonaly@aol.com (Tdonaly) wrote:

>Richard Clark wrote,
>>
>>On Thu, 19 Feb 2004 13:32:15 -0600, Cecil Moore
>><Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>
>>>Richard Clark wrote:
>>>> I'm not interested in Flat Earth Socialist rhetoric.
>>>
>>>Looks like you are trying to delete and hide
>>Mark's experience eclipses this nonsense of Flat Earth Socialist
>>rhetoric.
>>
>
>Hi Richard,
>Cecil doesn't believe in measurement and experience. He's the
>last of the Scholastics.
>73,
>Tom Donaly, KA6RUH
>
Hi Tom,

Exactly what you expect of a binary engineer arguing linear problems:
tedious repetition and recitation from stale books.

73's
Richard Clark, KB7QHC

2828. A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 21:29:49 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c139vprmo1@newshost.mot.com>
Source record: 99650

Unable to resist at least trying to provide the basis for some
understanding, Steve proceeds.

Jim, you know who you are...

Thank you. Here's a go at a start.

Apparently, because of the way the big bang occurred, when we put a voltage
across a resistor current flows in a manner that we discovered follows the
equation called Ohm's law. The resistor "resists", determines or limits the
current. Oh yea, resistors have this characteristic we call resistance
measured in "Ohms", just for using in the formulas.

Ohms law: I = V/R

Say... 12 Volts on a 50 ohm resistor results in 0.24 amps flowing.

For the same reason (big bang) this removes power from the circuit, or
"dissipates" it. Poof! Gone from the circuit. Resistors happen to turn this
power into heat. The value being discoverable by the power formula:

P=IxV and the variations P=E^2/R and P=I^2xR

It also turns out that ANYTHING else that removes power from a circuit looks
just like a resistor to the circuit (obeys Ohm's law), and *ONLY* things
that LOOK just like a resistor (behave or conduct current according to Ohm's
law) will so remove power from said ckt. IF you didn't catch this, there
are things that are not really resistors, yet act just like them as far as a
circuit is concerned.

Unfortunately, life is fraught with dangers and we have capacitors (C) and
inductors (L)(or things which behave just like them or combinations of
them). When we get into this realm, the "R" from above, just doesn't do it.
Things get all messed up.

These things also "resist" current flow. (or determine or limit it). We
call this form of resisting "Reactance", use the letter "X" to represent it
and it also is measured in "Ohms", just for using in the formulas. Oh yea,
we also use the little subscript letter to indicate if it is an inductive
(l) or capacitive (c)reactance.

Xc ("X" sub c) = 1/(2 x pi x f x C)

Xl ("X" sub L) = 2 x pi x f x L

When we want to talk about the effect or either an "L" or a "C" we simply
use the term "Reactance" It's like a good substitute for "he/she" (the
"wrong one being "they").

Because of (big bang again) the way the current in these (C & L) corruptions, of our purely resistive world, work out to be 90 degrees out of phase with the voltage (we are talking about AC now), we had to find a way to account for them. I won't trouble you with just why now, but we use what is called the "Series Representation". It looks like two numbers with a + or - sign between them and all together we call this new kind of (corrupted) resistance "Impedance". And use the letter "Z" to represent it. It has some Resistance and some Reactance in there and it will have numbers on ohms:

In general: It looks like this:

Z = R + jX

The "R" is the same kind of resistor as above, the "X" is one of the reactances. The "j" helps the mathematicians do the math - like ohms law - but with the reactance accounted for. In "math speak" the "R" is the "real" part and the "X" is the "Imaginary" part of the impedance.

Impedance also resists current flow, but with the reactance in there, you can't use Ohm's law like you used to.

SO... When I say "Impedance" or use "Z" I am talking about whatever happens to be there. Since I don't know if it is only resistive, called also "Purely resistive", or has some reactance in it, called "reactive", (or if I am just too lazy to figure it out at the time), I use this word or symbol to cover any situation.

Finally, since only the "resistive part" of a circuit dissipates any power, we like to remove (somehow) all the reactance (or imaginary part) and somehow make the real part (the resistive part) what we like best (for a given situation). Doing this is the infinitely complex subject called "impedance matching". When we make this happen on an antenna, the remaining "resistive part" sucks power from the circuit (the transmitter circuit) Poof! BUT converts it into radiated radio frequency energy (RF) also called an electromagnetic field or wave.

Fortunately for us in this modern day and age, because if it didn't all the receivers that we have would be useless and we would wonder why we built them.

Help any???

73 Steve--
Steve N, K,9;d, c. i My email has no u's.

2829. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 21:33:12 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c13a64$s1c$1@newshost.mot.com>
Source record: 99652

```
Bottom post:
"Ed Price" <edprice@cox.net> wrote in message
news:pN0Zb.3320$C21.1209@fed1read07...
>
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:c10ou9$1k3$1@newshost.mot.com...
> >
> > "Gary Schafer" <gaschafer@comcast.net> wrote in message
> > news:0p7730t7nbsfolp2lculd2278tgqnt36ou@4ax.com...
> > > On Wed, 18 Feb 2004 03:17:37 -0800, "Ed Price" <edprice@cox.net>
> > > wrote:
> > >
> > >
> > > >
> > > >I agree with Steve's observations (although I prefer that he
> > bottom-post),
> > > >but I would still try to keep the process simple.
> > > >
> > > >First, you know the very limited frequency range of the offending
> signal
> > > >(you said it slowly drifts across your repeater input at 145.41 MHz).
> So
> > > >that means you know which way it drifts, about how fast the frequency
> > slew
> > > >is, and about how far it shifts. Further, you know the characteristic
> > > >modulation on the signal. And, to make it even easier, the signal
isn't
> > > >playing tricks on you to spoof your search. Finally, you must have
some
> > idea
> > > >by now as to when the signal is most likely to be present.
> > > >
> > > >Time to get a directional antenna (Yagi, log periodic, a loop
resonant
> to
> > > >145 MHz, even an inefficient horn) and look for the signal. I would
use
> a
> > > >spectrum analyzer (those HP boxes are too big and heavy, so look for
a
> > > >Leader or Anritsu. Why not turn this into a real learning experience?
> Why
> > > >not build a 2 meter version of the Poor Man's Spectrum Analyzer into
a
```

> > > >briefcase, maybe updating the display by using a small laptop?
> > > >
> > > >As a first assumption, I suppose we can assume that the offending
> signal
> > > >isn't in a vehicle. So get out and grab a bearing when you can.
> > Obviously,
> > > >you have to be prepared to get into the field quickly and efficiently
> to
> > > >make your observations. After a couple of bearings, at least you will
> > guess
> > > >which side of town to look first.
> > > >
> > > >Hey, if this was easy, then T-hunts would be no fun, and clandestine
> > radio
> > > >would be a short path to a bullet.
> > > >
> > > >Ed
> > > >wb6wsn
> > >
> > > It sounds a lot easier than it is. Sometimes the interference that you
> > > hear is the result of a spur from one transmitter getting into another
> > > and the IM product of the second is what you hear. Try and track that
> > > one down!
> > > The most successful way I have seen is to first find the general
> > > direction the problem is coming from (spectrum analyzer and
> > > directional antenna) and then spending many hours watching the
> > > spectrum analyzer to see what transmitters come on the air when the
> > > interference is present.
> > >
> > > Problem is that they are not always there. Temperature difference at a
> > > particular site can cause the spur to change or not be there. Amount
> > > of use of the transmitter can make a difference. These things can
> > > drift across the whole VHF band or more.
> > > 73
> > > Gary K4FMX
> > >
> >
> > OK. Got it. Remember to not eliminate Tx spur / IM. We had one spur
> > occurrence last year and the two repeaters were >20 miles apart...but it
> was
> > a pretty bit Tx spur. Interesting how this PA spur just landed on the
> other
> > repeater input so nicely.
> > Steve
> >
> >
>
> If it had landed on some other frequency, you would never have noticed it.
> The odds of it affecting you were really quite low, despite Murphy's Law.
> And logically, there's nearly an infinite number of other problems that

> could happen, given just the right tweak or failure someplace.
>
> Ed
> wb6wsn
>

Yea. sorta' except that it sweeps through repeater outputs and other
inputs, just not coming to rest on them, ever.

Weird.
P.S. Did you know that Murphy's law was discovered by a *DIFFERENT* Murhy?

2830. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 21:37:51 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c13aeqsba1@newshost.mot.com>
Source record: 99651
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

```
"John Jardine" <john@jjdesigns.fsnet.co.uk> wrote in message
news:c12ibh$r2i$1@newsg3.svr.pol.co.uk...
>
> Diego Stutzer <abcdstutzer@evard.ch> wrote in message
> news:aca3ec4c.0402190230.bb2d1cf@posting.google.com...
> > Hi,
> > Every one knows, that e.g. a simple RC-parallel circuit has a
> > frequency-dependent impedance-characteristic (Absolute Value) - the
> > impedance (Abs) raises as the Frequency approaches zero. As a formula:
> Zin
> > = 1/(1/R + i w C) , where i ist the imaginary number and w the
frequency.
> >
> > Now the hard part. How does one create an Impedance, which decreases
> > "slower", for frequencies close to zero but then decreases "faster" for
> > higher frequencies, than the simple parallel RC-Circuit?
> > Is there some kind of procedure like the one for syntesizeing LC-Filters
> > (Butterworth, Chebychev,..)?
> >
> > Simply increasing C does not really help, because this equals a
factoring
> of
> > the frequency.
> > Increasing R does not help as well, as it seems.
> >
> >
> > I hope one of you cracks can help me out.
> > So far, thanks for reading.
> > Diego Stutzer
>
> You need to graph out the required frequency-impedance slope then
> approximate the required roll off rates using a segmented breakpoint
scheme
> consisting of a number of CR series sections in parallel. Essentially it's
a
> straight line approximation to the required Z-F curve. The CR's adding
> zeroes as the frequency goes up.
>
> Estimating the individual time constants can be irksome as each has
effect
> outside it's area of interest. Use a 'least-squares approximation' to
obtain
> a best curve fit for the number of sections involved.
```

>
> It's an interesting subject but I've come across nothing out there that's
of
> use.
>
> regards
> john
>
>

In other words YES. You use combinations of resistors and capacitors or inductors. Understanding the concept of "poles" and "Zeroes" is one way which allows the synthesis of such circuits. Another is the concept of "corner Frequency".

--
Steve N, K,9;d, c. i My email has no u's.

2831. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 21:38:54 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c13agqsge1@newshost.mot.com>
Source record: 99654
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40349fc7_4@corp.newsgroups.com...
> Diego Stutzer wrote:
> > Now the hard part. How does one create an Impedance, which decreases
> > "slower", for frequencies close to zero but then decreases "faster" for
> > higher frequencies, than the simple parallel RC-Circuit?
> > Is there some kind of procedure like the one for syntesizeing LC-Filters
> > (Butterworth, Chebychev,..)?
>
> For emulation modeling, there exist programmable resistors,
> capacitors, and inductors. Is that what you have in mind?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

I think he is looking for slopes of less that 6 dB per octave.

--
Steve N, K,9;d, c. i My email has no u's.

2832. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 21:55:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40353127$1_2@127.0.0.1>
Source record: 99653

Jim Kelley wrote:
> The arrow does not indicate "the direction AC is flowing" - which is
> what you've been trying to imply.

Sorry Jim, I never tried to imply anything of the sort. The arrow, which is just a convention, indicates the direction of instantaneous current flow when cos(phase_angle) is positive which is during 1/2 of the cycle. The instantaneous current flows in the opposite direction 1/2 cycle later when cos(phase_angle) is negative. You have argued loud and long that current phase has nothing to do with current direction. That's just simply false. In fact, the current phase and direction of current flow in the wire are 100% correlated.

> Moreover, it has nothing to do your
> claim that more alternating current flows into one end of an inductor
> than flows out of the other. As I have been saying all along, that
> particular notion is invalid.

Tom's and Roy's own measurements proved that the measured current at the bottom of the coil is greater than the measured current at the top of the coil. Those currents are not standing still. They are flowing in and out of the coil and have been proven not to be equal by actual measurements.

Let's look at one example again. The current at the bottom of the coil is 0.87 at -1.23 deg and the current at the top of the coil is 0.67 at -1.57 deg. (Those angles deviate from zero degrees by a negligible amount.) The cosines of those phase_angles are positive indicating that we are on the '+' side of the axis (in phase with the feedpoint current) so we draw the current arrow into the bottom of the coil and out the top of the coil. Your objection to that commonly accepted convention is noted.

With the positive feedpoint current as our reference, we label the current arrow pointing into the bottom of the coil as 0.87 amps and we label the arrow pointing out of the top of the coil as 0.67 amps. So we have:

```
Source Current at Current at
Current Bottom of coil top of coil
1.0 amp 0.87 amp 0.67 amp
---> ----> coil --->
--------------------------------////////-----------------------
```

At the time in the cycle when the instantaneous source current is positive, the current into the bottom of the coil is positive and greater than the current out of the top of the coil which is also positive.

> When the value I in the expression i = I*sin(w) for a standing wave
> happens to be greater at one end of a transmission line than the
> corresponding value of I at the other end of the transmission line, it
> is NOT true, or correct to say that more current is flowing into one end
> than is flowing out of the other. It's totally bogus electronics. I
> wish you would be courageous enough to stand corrected on that point.

The net current is the phasor sum
of the forward current and reflected current. It can indeed vary from
one point in the transmission line to another and it does exactly that
in a line with reflections. I said long ago that the forward current
in a transmission line is relatively constant and the reflected current
is relatively constant. But their phasor sum, the net current, can vary
from zero to almost double the value of the forward current and anywhere
in between including positive and negative values. By convention, if it
is positive, it is flowing toward the load. If it is negative, it is
flowing toward the source. Non-zero standing-wave current reverses its
direction of flow every 1/2 cycle, i.e. it doesn't just stand still
contrary to its name. With a single inductive pickup, you cannot tell
a standing-wave current from a traveling-wave current. That fact speaks
volumes.
--
73, Cecil, W5DXP

2833. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 22:05:14 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40353368_2@127.0.0.1>
Source record: 99655

Tdonaly wrote:
> Cecil doesn't believe in measurement and experience. He's the
> last of the Scholastics.

If someone experiences a 5 dBi monopole beating a
11 dBi beam, I am skeptical.
--
73, Cecil, W5DXP

2834. Re: Crazy question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 22:38:34 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4033e3d2$1_5@newsfeed.slurp.net>
Source record: 99656

Sure. You can clean up metal elements with fine steel wool, and re-seal it with varathane (or similar materials). Connection points can be cleaned up and treated with a conductive lube. If you're restoring an old antenna, you'll also want to think about replacing all the hardware (nuts & bolts) with stainless steel, if available.

- Mike KI6PR
El Rancho R.F., CA

"cme" wrote
> Can one clean the elements on a antenna, to bring it back to its former self
> , as when it was new, with some steel wool or something. Oil the attachment
> point so they dont corrode.
>
> Is there any mainenance tips one can do for an antenna.
>
>

2835. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 22:45:13 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <40353C79.8B7F352E@uci.edu>
Source record: 99659

Cecil Moore wrote:

> You have argued loud
> and long that current phase has nothing to do with current direction.

If that's what you think, then you misunderstood.

> Tom's and Roy's own measurements proved that the measured current at
> the bottom of the coil is greater than the measured current at the top
> of the coil.

I note you using the term AT now. Very good. I agree with it. I also note that you no longer say the current into the bottom of the coil is greater than the current our of the top of the coil. That is what I objected to at the beginning of this mess.

> Those currents are not standing still.

Never said current stands still, Cecil. You're the only one whose said anything about that. What I've said is that alternating current isn't unidirectional.

> They are flowing
> in and out of the coil and have been proven not to be equal by actual
> measurements.

Exactly what I've been saying - repeatedly, all along. I'm glad you finally agree.

73, Jim AC6XG

2836. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 22:51:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7lea30pu1d3ocsfggng20ko8u30236tr4l@4ax.com>
Source record: 99657

On Thu, 19 Feb 2004 16:05:14 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>If someone experiences a 5 dBi monopole beating a
>11 dBi beam, I am skeptical.

Hi All,

The statement above is the poster child of the lack of demonstrables. It is a binary comparison that leads to one of two conclusions based on incomplete discussion. In the linear world, there are many, many factors that go into judgemental determinations instead of these two rather threadbare characteristics that are only inferentially associated to a more profound observation.

Such vague statements lead cfa proponents to claim their dipole designs whip standard FCC implementations of monopoles. Then when you examine the data, yup, the FCC design eclipses their generalities couched in neo-academia by 20 to 30dB. Such is the stuff of Flat Earth Socialism that huffs and puffs dusty tomes with speculations of long leaded resistors against the unequivocal evidence of peer judged field work.

73's
Richard Clark, KB7QHC

2837. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 22:55:54 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <103afo66pk24dfa@corp.supernews.com>
Source record: 99658

Hi-Ho Stevo, Outstanding reply to Jimbo and a bunch of us out here that
do not really "know" all that we "undetstand" about electronics! There,
I said it for the bunch! No flames from the huddling masses now!

Butch KF5DE

Steve Nosko wrote:
> Unable to resist at least trying to provide the basis for some
> understanding, Steve proceeds.
>
>
>
> Jim, you know who you are...
>
snippity-snip

2838. Re: Use a Windom!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 23:28:55 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <XEbZb.12379$hm4.2406@newsread3.news.atl.earthlink.net>
Source record: 99660

"Len" <len2004@theuminas.com> wrote in message
news:40350f67$1_2@corp.newsgroups.com...
> Gerry,
>
> 102 Feet is plenty for an 80 meter windom. This will give excellent
> performance on all bands, only require a tuner on 10 Mhz., and the rigs
> tuner will work fine, and it will blow away any G5RV antenna on any band.
> They are also more rugged than a G5RV.
>
> My favorite was made by Fritzel, if you can find one.
>
> Since they are 120 feet long, just hang the extra vertically at the ends
> with a small weight attached so the wind does not tangle it.
>
> Also, the off center feed usually works out better for most installations
> becuase most of us are not lucky enough to have our shack directly under
the
> antenna - although some cartoons stereotype us that way!
>
> You will not be dissapointed.
>
> 73,
> Len
> WT6G
> Do not reply to len2004@theuminas.com
>
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

If your refering the the Fritzel FD4 windom....I hate to differ. I used one
in Germany and it sucked.

Dan/W4NTI

2839. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 23:41:06 UTC
From: tdonaly@aol.com
Message-ID: <20040219184106.20400.00000031@mb-m04.aol.com>
Source record: 99661

Steve's info will get you a beginners understanding of circuit
theory which is based on a low-frequency, quasi-static simplification
of electromagnetic theory. Unfortunately, anything that has any
appreciable length, such as a transmission line or an antenna, or
a long coil of wire as Yuri and Cecil are arguing about,
can't be adequately explained by simple circuit theory; you have to
study wave mechanics to get any real idea of what is happening
in these situations. That isn't the end of it, though, since in order
to understand what is happening when an object radiates, you
have to understand Maxwell's equations. In order to understand
Maxwell's equations, you'd better know vector calculus. That isn't the
end, either, but it's as close as any *normal* human wants to go.
Whenever someone who was taught circuit theory tries to
apply its vocabulary and concepts to explain all electromagnetic
phenomena, that someone is going to run into trouble and
come up with a multitude of idiocies for which which he'll find no end of
people ready to criticize him.
This is the problem: Cecil and Yuri want to explain the current taper
through a long solenoidal coil using the vocabulary and concepts of
circuit theory rather than the difficult but more precise
language of electromagnetic theory. So far they've failed
miserably, not least because they don't even seem to have
a coherent idea of what they mean by "current flow." I
wish them luck, but I hope no one takes any of their
ideas seriously.
73,
Tom Donaly, KA6RUH

Steve wrote,
>
>Unable to resist at least trying to provide the basis for some
>understanding, Steve proceeds.
>
>
>
>Jim, you know who you are...
>
>
>
>Thank you. Here's a go at a start.
>
>
>
>Apparently, because of the way the big bang occurred, when we put a voltage

>across a resistor current flows in a manner that we discovered follows the
>equation called Ohm's law. The resistor "resists", determines or limits the
>current. Oh yea, resistors have this characteristic we call resistance
>measured in "Ohms", just for using in the formulas.
>
>
>
>Ohms law: I = V/R
>
> Say... 12 Volts on a 50 ohm resistor results in 0.24 amps flowing.
>
>
>
>For the same reason (big bang) this removes power from the circuit, or
>"dissipates" it. Poof! Gone from the circuit. Resistors happen to turn this
>power into heat. The value being discoverable by the power formula:
>
>P=IxV and the variations P=E^2/R and P=I^2xR
>
>
>
>It also turns out that ANYTHING else that removes power from a circuit looks
>just like a resistor to the circuit (obeys Ohm's law), and *ONLY* things
>that LOOK just like a resistor (behave or conduct current according to Ohm's
>law) will so remove power from said ckt. IF you didn't catch this, there
>are things that are not really resistors, yet act just like them as far as a
>circuit is concerned.
>
>
>
>Unfortunately, life is fraught with dangers and we have capacitors (C) and
>inductors (L)(or things which behave just like them or combinations of
>them). When we get into this realm, the "R" from above, just doesn't do it.
>Things get all messed up.
>
> These things also "resist" current flow. (or determine or limit it). We
>call this form of resisting "Reactance", use the letter "X" to represent it
>and it also is measured in "Ohms", just for using in the formulas. Oh yea,
>we also use the little subscript letter to indicate if it is an inductive
>(l) or capacitive (c)reactance.
>
>
>
>Xc ("X" sub c) = 1/(2 x pi x f x C)
>
>Xl ("X" sub L) = 2 x pi x f x L
>
>
>
> When we want to talk about the effect or either an "L" or a "C" we simply

>use the term "Reactance" It's like a good substitute for "he/she" (the
>"wrong one being "they").
>
>
>
> Because of (big bang again) the way the current in these (C & L)
>corruptions, of our purely resistive world, work out to be 90 degrees out of
>phase with the voltage (we are talking about AC now), we had to find a way
>to account for them. I won't trouble you with just why now, but we use what
>is called the "Series Representation". It looks like two numbers with a +
>or - sign between them and all together we call this new kind of (corrupted)
>resistance "Impedance". And use the letter "Z" to represent it. It has
>some Resistance and some Reactance in there and it will have numbers on
>ohms:
>
>In general: It looks like this:
>
> Z = R + jX
>
>
>
>The "R" is the same kind of resistor as above, the "X" is one of the
>reactances. The "j" helps the mathematicians do the math - like ohms law -
>but with the reactance accounted for. In "math speak" the "R" is the "real"
>part and the "X" is the "Imaginary" part of the impedance.
>
>
>
>Impedance also resists current flow, but with the reactance in there, you
>can't use Ohm's law like you used to.
>
>
>
>SO... When I say "Impedance" or use "Z" I am talking about whatever happens
>to be there. Since I don't know if it is only resistive, called also
>"Purely resistive", or has some reactance in it, called "reactive", (or if I
>am just too lazy to figure it out at the time), I use this word or symbol to
>cover any situation.
>
>
>
>Finally, since only the "resistive part" of a circuit dissipates any power,
>we like to remove (somehow) all the reactance (or imaginary part) and
>somehow make the real part (the resistive part) what we like best (for a
>given situation). Doing this is the infinitely complex subject called
>"impedance matching". When we make this happen on an antenna, the remaining
>"resistive part" sucks power from the circuit (the transmitter circuit)
>Poof! BUT converts it into radiated radio frequency energy (RF) also called
>an electromagnetic field or wave.
>

>
>
>Fortunately for us in this modern day and age, because if it didn't all the
>receivers that we have would be useless and we would wonder why we built
>them.
>
>
>
>Help any???
>
>
>
>73 Steve--
>Steve N, K,9;d, c. i My email has no u's.
>

2840. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-19 23:52:26 UTC
From: tdonaly@aol.com
Message-ID: <20040219185226.20400.00000032@mb-m04.aol.com>
Source record: 99662

Cecil wrote, among other things,
>... With a single inductive pickup, you cannot tell
>a standing-wave current from a traveling-wave current. That fact speaks
>volumes.
>--
>73, Cecil, W5DXP

Maybe you can't, but I can. Actually, you can, too. Just move
the probe a little bit, laterally, and observe the amplitude on the O'scope
screen. If it changes, it's not a pure travelling wave.
73,
Tom Donaly, KA6RUH

2841. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 00:03:32 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <103ajn05s611k28@corp.supernews.com>
Source record: 99663

Time out!! You people are taking all this far to seriously. Just throw
an aerial out the window, feed it to your rig via a tuner, and enjoy
Amateur radio.

Butch Magee KF5DE

Tdonaly wrote:
> Steve's info will get you a beginners understanding of circuit
> theory which is based on a low-frequency, quasi-static simplification
> of electromagnetic theory. Unfortunately, anything that has any
> appreciable length, such as a transmission line or an antenna, or
> a long coil of wire as Yuri and Cecil are arguing about,
> can't be adequately explained by simple circuit theory; you have to
> study wave mechanics to get any real idea of what is happening
> in these situations. That isn't the end of it, though, since in order
> to understand what is happening when an object radiates, you
> have to understand Maxwell's equations. In order to understand
> Maxwell's equations, you'd better know vector calculus. That isn't the
> end, either, but it's as close as any *normal* human wants to go.
> Whenever someone who was taught circuit theory tries to
> apply its vocabulary and concepts to explain all electromagnetic
> phenomena, that someone is going to run into trouble and
> come up with a multitude of idiocies for which which he'll find no end of
> people ready to criticize him.
> This is the problem: Cecil and Yuri want to explain the current taper
> through a long solenoidal coil using the vocabulary and concepts of
> circuit theory rather than the difficult but more precise
> language of electromagnetic theory. So far they've failed
> miserably, not least because they don't even seem to have
> a coherent idea of what they mean by "current flow." I
> wish them luck, but I hope no one takes any of their
> ideas seriously.
> 73,
> Tom Donaly, KA6RUH
>
>
>
>
>
>
> Steve wrote,
>
>>Unable to resist at least trying to provide the basis for some
>>understanding, Steve proceeds.
>>

>>
>>
>>Jim, you know who you are...
>>
>>
>>
>>Thank you. Here's a go at a start.
>>
>>
>>
>>Apparently, because of the way the big bang occurred, when we put a voltage
>>across a resistor current flows in a manner that we discovered follows the
>>equation called Ohm's law. The resistor "resists", determines or limits the
>>current. Oh yea, resistors have this characteristic we call resistance
>>measured in "Ohms", just for using in the formulas.
>>
>>
>>
>>Ohms law: I = V/R
>>
>> Say... 12 Volts on a 50 ohm resistor results in 0.24 amps flowing.
>>
>>
>>
>>For the same reason (big bang) this removes power from the circuit, or
>>"dissipates" it. Poof! Gone from the circuit. Resistors happen to turn this
>>power into heat. The value being discoverable by the power formula:
>>
>>P=IxV and the variations P=E^2/R and P=I^2xR
>>
>>
>>
>>It also turns out that ANYTHING else that removes power from a circuit looks
>>just like a resistor to the circuit (obeys Ohm's law), and *ONLY* things
>>that LOOK just like a resistor (behave or conduct current according to Ohm's
>>law) will so remove power from said ckt. IF you didn't catch this, there
>>are things that are not really resistors, yet act just like them as far as a
>>circuit is concerned.
>>
>>
>>
>>Unfortunately, life is fraught with dangers and we have capacitors (C) and
>>inductors (L)(or things which behave just like them or combinations of
>>them). When we get into this realm, the "R" from above, just doesn't do it.
>>Things get all messed up.
>>
>> These things also "resist" current flow. (or determine or limit it). We
>>call this form of resisting "Reactance", use the letter "X" to represent it
>>and it also is measured in "Ohms", just for using in the formulas. Oh yea,
>>we also use the little subscript letter to indicate if it is an inductive

>>(l) or capacitive (c)reactance.
>>
>>
>>
>>Xc ("X" sub c) = 1/(2 x pi x f x C)
>>
>>Xl ("X" sub L) = 2 x pi x f x L
>>
>>
>>
>> When we want to talk about the effect or either an "L" or a "C" we simply
>>use the term "Reactance" It's like a good substitute for "he/she" (the
>>"wrong one being "they").
>>
>>
>>
>> Because of (big bang again) the way the current in these (C & L)
>>corruptions, of our purely resistive world, work out to be 90 degrees out of
>>phase with the voltage (we are talking about AC now), we had to find a way
>>to account for them. I won't trouble you with just why now, but we use what
>>is called the "Series Representation". It looks like two numbers with a +
>>or - sign between them and all together we call this new kind of (corrupted)
>>resistance "Impedance". And use the letter "Z" to represent it. It has
>>some Resistance and some Reactance in there and it will have numbers on
>>ohms:
>>
>>In general: It looks like this:
>>
>>Z = R + jX
>>
>>
>>
>>The "R" is the same kind of resistor as above, the "X" is one of the
>>reactances. The "j" helps the mathematicians do the math - like ohms law -
>>but with the reactance accounted for. In "math speak" the "R" is the "real"
>>part and the "X" is the "Imaginary" part of the impedance.
>>
>>
>>
>>Impedance also resists current flow, but with the reactance in there, you
>>can't use Ohm's law like you used to.
>>
>>
>>
>>SO... When I say "Impedance" or use "Z" I am talking about whatever happens
>>to be there. Since I don't know if it is only resistive, called also
>>"Purely resistive", or has some reactance in it, called "reactive", (or if I
>>am just too lazy to figure it out at the time), I use this word or symbol to
>>cover any situation.
>>

>>
>>
>>Finally, since only the "resistive part" of a circuit dissipates any power,
>>we like to remove (somehow) all the reactance (or imaginary part) and
>>somehow make the real part (the resistive part) what we like best (for a
>>given situation). Doing this is the infinitely complex subject called
>>"impedance matching". When we make this happen on an antenna, the remaining
>>"resistive part" sucks power from the circuit (the transmitter circuit)
>>Poof! BUT converts it into radiated radio frequency energy (RF) also called
>>an electromagnetic field or wave.
>>
>>
>>
>>Fortunately for us in this modern day and age, because if it didn't all the
>>receivers that we have would be useless and we would wonder why we built
>>them.
>>
>>
>>
>>Help any???
>>
>>
>>
>>73 Steve--
>>Steve N, K,9;d, c. i My email has no u's.
>>
>
>
>

2842. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 00:10:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c13j9t$j7n$1@titan.btinternet.com>
Source record: 99664

Wrong!

If a long wire antenna, regardless of Zo, is about 1/4 wavelengths long it
will have an input impedance less than 50 ohms.

A conventional balun will bring it down to much less.

And a conventional balun will not work the other way round.

Reg

2843. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 00:13:02 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403551fc$1_7@corp.newsgroups.com>
Source record: 99665

Tdonaly wrote:
> Maybe you can't, but I can. Actually, you can, too. Just move
> the probe a little bit, laterally, and observe the amplitude on the O'scope
> screen.

Forgot to say, this is a hands off experiment. No moving allowed.
One and only reading is taken at one point and only one point. Is
that one reading standing wave current or forward current or reflected
current?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2844. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 00:32:14 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4035567d_7@corp.newsgroups.com>
Source record: 99666

Jim Kelley wrote:

> Cecil Moore wrote:
>>You have argued loud
>>and long that current phase has nothing to do with current direction.
>
> If that's what you think, then you misunderstood.

Would you like for me to re-post your posting where you said phase
had nothing to do with direction? When you change your mind about
something, it would be nice if you were man enough to admit it.
Saying that you already knew everything that will ever be known
is getting pretty old.

> I also
> note that you no longer say the current into the bottom of the coil is
> greater than the current our of the top of the coil.

OK, I will repeat that the current into the bottom of the coil is
greater than the current out of the top of the coil (during the
1/2 cycle when they are both positive). The words in parentheses
are always implied by convention when talking about something like
this but you already knew that. Please don't tell me that the hard
time you have been giving me was over an implied semantic context that
everyone already understands is a standard accepted convention.

>>Those currents are not standing still.
>
> Never said current stands still, Cecil.

Would you like for me to re-post your posting that says the standing
wave current doesn't move and never enters the coil? You said because
that was true, I didn't understand standing waves.

>>They are flowing
>>in and out of the coil and have been proven not to be equal by actual
>>measurements.
>
> Exactly what I've been saying ...

Now everyone can see that you are just flat out lying. You insisted that
standing wave current does not flow into a coil and argued with me when
I said it did. Hint for you, Jim: The current cannot flow in and out
without first flowing in, which you asserted doesn't happen.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2845. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 01:34:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gqoa30pfuder9r55bmb3trrkvu4os9sait@4ax.com>
Source record: 99667

On Thu, 19 Feb 2004 18:13:02 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Tdonaly wrote:
>> Maybe you can't, but I can. Actually, you can, too. Just move
>> the probe a little bit, laterally, and observe the amplitude on the O'scope
>> screen.
>
>Forgot to say, this is a hands off experiment.
you mis-spelled waving.

SWR = Standard hands Waving Ridiculousness

2846. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 02:31:09 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402191831.373dff32@posting.google.com>
Source record: 99668

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40338be6_5@corp.newsgroups.com>...
> Mikey wrote:
> > Yes, phased verticals will outperform a dipole.
>
> Some phased verticals will outperform a dipole, depending upon how one
> defines "outperform". A dipole at a decent height can have a 7 dB gain
> over a 1/4 WL monopole. A two-element phased vertical cannot equal that
> figure over average ground. Reference: Fig 10, Chapter 8, The ARRL Antenna
> Book, 15th edition. The maximum gain figure for a two-element phased vertical
> is 4.7 dB over a 1/4 WL monopole. The average is about 3 dB depending on
> spacing and phasing. That same graphic is Fig 11, Chapter 8, on the ARRL
> Antenna Book CD, ver 2.0.
>
> EZNEC sez my simple 130 ft. dipole at 40 ft. has a gain of 10.8 dBi on
> 10m with a take-off-angle of 12 degrees. It would take quite a vertical
> array to equal that. (Then I would have to somehow overcome a +10 dB
> vertically polarized noise level. :-)

Cecil, It is extremely hard to follow this thread as many comparisons
are vague i.e. frequency, length of antenna e.t.c.
You are not helping things when you talk of a 130 foot dipole and its
use on ten meters. I think calling that antenna a dipole is misleading
to say the least
For ten meters I would call it something more than a dipole.
To talk of a simple dipole having 10 db gain on this group is more
than misleading it is an attempt to confuse.
Can you imagine me entering the 160 metre discussion and discussing my
collinear dipole in the vertical position as just
a "simple " dipole and with no buried ground plane at that? If you are
going to continue to compare antennas then the info must be factual
and completely comparible or you do not have a legit comparison. I
came in late but I read all the postings on this thread and the
comparisons are all over the place and hard to follow, so back to what
I was doing which is more productive.
Have fun, will pop back later when the postings get to over 200.
Art

2847. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 03:53:23 UTC
From: richardharrison@webtv.net
Message-ID: <21632-403584B3-235@storefull-3258.bay.webtv.net>
Source record: 99669

bb wrote:
"Would vertical phasing be an improvement?

Vertical antennas launch waves along the surface of the earth. Vertical antennas tend to have a null directly overhead.

According to B. Whitfield Griffith, Jr. in "Radio-Electronic Transmission Fundamentals", the field intensity at 10 miles from an antenna will be 1000X stronger at 0.5 MHz than at 5.0 MHz if the soil conductivity is 10 mmhos/m (sort of ordinary) and if the same power is being radiated on both frequencies.

High attenuation of the groundwave at high frequencies was the reason frequencies above 1500 KHz were thought no good in the early days of radio.

Sea water has a conductivity of about 5000 mmhos/m, or about 500X better than ordinary earth. So, the lower HF spectrum is good for some maritime and tropical broadcasting services in island areas. Antennas need to be located near the water`s edge to avoid excessive loss in traversing land to get to the water.

Salt air is not the best environment for a shortwave broadcast station. Shortwaves traveling along the earth`s surface are severely attenuated. Though I worked for years in shortwave broadcasting, I never saw a shortwave broadcast station that used vertical polarization. Shortwave stations are usually sited away from the sea coast for protection and equipped with horizontal antennas to launch sky waves, not ground waves.

The broadcaster wants to concentrate energy both horizontally and vertically to useful azimuths and elevation angles. These ideally are tailored to the broadcast target. The broadcaster gratefully accepts any useful reflection from the earth but does not tend to rely much upon it.

There is no inviolable rule of one type or even of one polarization of antenna being best for all situations. There are many types. Kraus lists 24 types "as a preview to more detailed treatments." If you would really make your own discriminating choices instead of relying upon the advice of others, you would need to carefully study some book like Kraus` "Antennas".

Best regards, Richard Harrison, KB5WZI

2848. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 04:42:05 UTC
From: richardharrison@webtv.net
Message-ID: <12324-4035901D-300@storefull-3256.bay.webtv.net>
Source record: 99670

Art, KB9MZ wrote:
"---the comparisons are all over the place and hard to follow."

When the title reads: "Does phasing verticals work better than a dipole?" that could be expected to evoke confusing replies. Hams play antenna favorites, often when the favorites aren`t justified.

I think it would be worth while to see what the most successful DXers actually use. ON4UN has tried to do this in "Low-Band DXing". Many use separate antennas for receiving and transmitting. The goal is signal to noise ratio on reception. The goal is effective radiated power on the target for transmission.

Many Beverages are listed to receive the DX signal. At 80m, there are Yagis, slopers, Vees, etc. to transmit. At 160m, there are quite a few inverted Vees and other antennas which seem to trend to vertical polarization. The antennas may be too large to rotate and omnidirectionality may be accepted without so much struggle. Multiple directional transmitting antennas might be a better solution if the resources are available. You may only need a few hundred acres.

Best regards, Richard Harrison, KB5WZI

2849. Re: Balun Toroids?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 06:59:22 UTC
From: matt wilson <mwilson2@nospam.bigpond.net.au>
Message-ID: <efiZb.67622$Wa.24062@news-server.bigpond.net.au>
Source record: 99671

The pot cores used in some of our equipent run 100W at 220kHz....

"OK1SIP" <remove_ok1sip@atlas.cz> wrote in message
news:5f5159fa.0402170015.70ba8717@posting.google.com...
The basic frequency of SPSU is usually in the range of 40 - 60 kHz. I
see no reason why the cores should be optimized for 400 Hz. Moreover,
the waveforms in SPSUs are rich of harmonics. According to Miro OM3CKU
at http://www.cq.sk/modules.php?name=News&file=print&sid=53 , the
transformer toroid cores from PC SPSUs are suitable in HF baluns up to
150 watts and in ATUs up to at least 50 watts.

73 Ivan OK1SIP

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40317bdf_1@corp.newsgroups.com>...
> mustang wrote:
> > Does anyone know if the toroids in pc power supplies would be suitable
> > for low power balun experiments for up to 30MHz?
>
> If they are the toroids used in the switching power supply as transformers,
> they are not very good for RF. They are probably powdered iron cores
> optimized for a frequency like 400 Hz. Most baluns use ferrite toroids
> optimized for a range of RF frequencies.

2850. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 07:08:22 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <GniZb.23027$d55.3546@newssvr24.news.prodigy.com>
Source record: 99672

"Dave VanHorn" <dvanhorn@cedar.net> wrote in message
news:TbCdnYZDgrZidandRVn-jQ@comcast.com...

...

> Lately, there's a big trend to tilt the antennas on trucks forward by
20-45
> degrees.
> Not sure what that's about.

They're going for vertical at highway speeds...
s'what I've been told, anyway...

--
Steve
KI5YG
.

2851. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 07:10:49 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <ZpiZb.23028$955.11050@newssvr24.news.prodigy.com>
Source record: 99673

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c13j9t$j7n$1@titan.btinternet.com...
> Wrong!
>
> If a long wire antenna, regardless of Zo, is about 1/4 wavelengths long it
> will have an input impedance less than 50 ohms.

For me, it has to be over a wavelength
before I'll call it 'long' wire... 1/4 wave is
definitely not a long wire, by any stretch
of the imagination.

--
Steve
KI5YG
.

2852. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 07:45:36 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <-L-dnd19z7VyJ6jdRVn-hw@comcast.com>
Source record: 99674

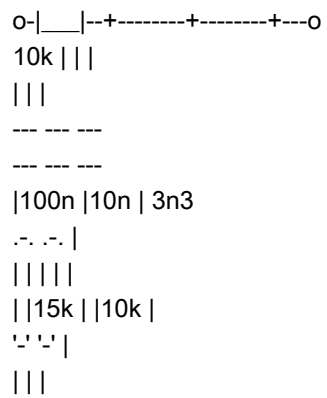
That is the generally excepted definition.

" Stephen Cowell" <scowell@sbcglobal.net> wrote in message
news:ZpiZb.23028$955.11050@newssvr24.news.prodigy.com...
>
> For me, it has to be over a wavelength
> before I'll call it 'long' wire... 1/4 wave is
> *definitely* not a long wire, by any stretch
> of the imagination.
> __
> Steve
> KI5YG
> .
>
>

2853. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 08:38:23 UTC
From: Ban <bansuri@web.de>
Message-ID: <3IjZb.347242$_P.11902238@news4.tin.it>
Source record: 99675
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

John Jardine wrote:
> Diego Stutzer <abcdstutzer@evard.ch> wrote in message
> news:aca3ec4c.0402190230.bb2d1cf@posting.google.com...
>> Hi,
>> Every one knows, that e.g. a simple RC-parallel circuit has a
>> frequency-dependent impedance-characteristic (Absolute Value) - the
>> impedance (Abs) raises as the Frequency approaches zero. As a
>> formula: Zin = 1/(1/R + i w C) , where i ist the imaginary number
>> and w the frequency.
>>
>> Now the hard part. How does one create an Impedance, which decreases
>> "slower", for frequencies close to zero but then decreases "faster"
>> for higher frequencies, than the simple parallel RC-Circuit?
>> Is there some kind of procedure like the one for syntesizeing
>> LC-Filters (Butterworth, Chebychev,..)?
>>
>
> You need to graph out the required frequency-impedance slope then
> approximate the required roll off rates using a segmented breakpoint
> scheme consisting of a number of CR series sections in parallel.
> Essentially it's a straight line approximation to the required Z-F
> curve. The CR's adding zeroes as the frequency goes up.
>
> Estimating the individual time constants can be irksome as each has
> effect outside it's area of interest. Use a 'least-squares
> approximation' to obtain a best curve fit for the number of sections
> involved.
>
> It's an interesting subject but I've come across nothing out there
> that's of use.



o--------+--------+--------+---o
created by Andy's ASCII-Circuit v1.24.140803 Beta www.tech-chat.de
use fixed font to view

This does exactly what you want, in the beginning the slope is less than
3dB/oct. and at 10kHz it goes to 6dB/oct.
This is how to produce a pink noise that rolls off faster at the end of
range, or to make some weighted filters (dBA) etc.

ciao Ban

2854. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 11:44:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4035f3f5_5@corp.newsgroups.com>
Source record: 99676

Z.Z. wrote:
> I'd be interested in the 20 ft of 2x4. What's the best way to do
> that?

Wood 2x4's come in 20 ft. lengths although not every lumber store carries that length. Or you can stack shorter 2x4's side by side and staggered to form a 4x4 base. Laying on its side, such a support might look like:

```
<-----12 ft length------><-----------16 ft length-------------->

+------------------------+--------------------------------------+
+------------------------+--------------+-----------------------+
+---------------------------------------+

<-------------16 ft length-------------->
```

The upper 16 foot section can be hinged to lay the antenna down. I used treated lumber for pole applications. Then I added a 20 ft section of fiberglas pole to the above using U-bolts to get to 44 feet total height.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2855. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 12:00:55 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <YFmZb.5138$C21.2768@fed1read07>
Source record: 99677

"Butch" <lynyrd@cableone.net> wrote in message
news:103ajn05s611k28@corp.supernews.com...
> Time out!! You people are taking all this far to seriously. Just throw
> an aerial out the window, feed it to your rig via a tuner, and enjoy
> Amateur radio.
>
> Butch Magee KF5DE

It just not that simple, Butch.

I'm sure you have heard that Ham radio is a hobby that has many facets; construction, public service, contesting, field trips, QRP DX, etc. Some of our members get their kicks merging theory with rag chewing. I don't think there's any structure to this sub-category, other than to require at least one mention of Maxwell in every discussion.

Ed
WB6WSN

2856. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 13:38:30 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <ANmdnV8Dh41dkKvdRVn-jA@comcast.com>
Source record: 99678

```
" Stephen Cowell" <scowell@sbcglobal.net> wrote in message
news:GniZb.23027$d55.3546@newssvr24.news.prodigy.com...
>
> "Dave VanHorn" <dvanhorn@cedar.net> wrote in message
> news:TbCdnYZDgrZidandRVn-jQ@comcast.com...
>
> ...
>
> > Lately, there's a big trend to tilt the antennas on trucks forward by
> 20-45
> > degrees.
> > Not sure what that's about.
>
> They're going for vertical at highway speeds...
> s'what I've been told, anyway...

Then they've overshot it by about 40 degrees.
```

2857. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 14:02:40 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <4soZb.12914$hm4.6232@newsread3.news.atl.earthlink.net>
Source record: 99679

Cecil:

[snip]
> What I have done is presented a situation where lumped circuit
> theory totally falls apart as it does in physically large mobile
> loading coils. That's one reason that distributed network theory
> was invented.
>
> Flat Earth thinking equates to using lumped circuit theory for
> applications where it simply doesn't work.
> --
> 73, Cecil, W5DXP
[snip]

As you well know 19th century electromagnetic field [EMAG] theory has been supplanted by
modern 20th century quantum electro-dynamics QED, just as EMAG supplanted the circuit
theory of the 18th century, and QED is "lumped" *not* "distributed".

What???

Hey... give it up man! Distributed is passe...

Even the latest Scientific American has an article on "Loop Quantum Gravity" the latest *lumped*
physical theory, where the final three holdouts for the continuum and those discredited *distributed*
theories, i.e. gravity, space, and time itself [i.e. Einstein's celebrated 20the century theory of general relativity]
are now found to be "lumped" and are in fact comprised of purely discrete quanta. Time is not continuous or distributed but proceeds in tiny steps measured in Planck times of 10^-43 seconds. Space is also quantized
in chunks of cubic Planck lengths of about 10^-99 cc's. See: Lee Smolin, "Atoms of Space and Time", Scientific American, January 2004, pp. 66-75.

Quanta and lumps rule!
--
Peter K1PO
Indialantic By-the-Sea, FL
[counting grains of sand on the beach today... :-)]

2858. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 15:58:15 UTC
From: richardharrison@webtv.net
Message-ID: <25405-40362E97-50@storefull-3254.bay.webtv.net>
Source record: 99680

Steve Nosko wrote:
"Apparently, because of the way the big bang occurred, when we put a voltage across a resistor current flows in a manner that we discovered follows the equation called Ohm`s law."

Big bang? Ohm wasn`t around then. He lived 1787 to 1854. Ohm discovered that current in an electrical resistance is proportional to voltage.

Resistance is the type of impedance (opposition to electrical current) in which current is locked in step to the applied voltage.

The item called a resistor is the type of resistance that converts electrical energy to heat energy.

Not all resistances are resistors. Some resistances don`t convert electrical energy directly into heat. In these non-dissipative resistances, current drop is in-phase with the applied volts, or voltage dropped across the resistance is in-phase with current through the resistance, but it does not cause energy loss. An example of lossless resistance is the Zo or surge impedance of a transmission line. Zo is caused by the distributed inductance and capacitance of the line, but current in the line is in-phase with the voltage across the line. Zo is the voltage to current ratio of the waves traveling in either direction on the transmission line. Zo = volts/amps, yet converts no energy to heat in the lossless line. Another example of lossless resistance is "radiation resistance". This is the desired antenna load, so it is hardly a loss. Loss in the wire, earth, and insulators of the antenna are resistive loads which produce heat but don`t help the signal.

An ohm is the unit of resistance. It is defined at 0-degrees C, of a uniform column of mercury 106.300 cm long and weighing 14.451 grams. One ohm is the resistance which drops one voltt when a current of one amp is passed through it.

Reactances are also defined by their volts to amps ratios (ohms). The big difference is that reactance does no work and produces no heat. Opposition to electrical current comes from delay required to store ard retrieve energy to and from fields in and around the reactances. Current lags the applied voltage in an inductance. At time = 0, no current flows into an inductance, but rises exponentially from the instant of initial energization. Current leads the applied voltage into a capacitance. At time = 0, full current flows into a capacitance but voltage across the capacitance is zero and rises exponentially from the instant of initial energization.

In an a-c circuit, the current through an inductance lags the voltage by 90-degrees. In a a-c circuit, the current through a capacitance leads the voltage by 90-degrees. Phase shifts are produced by energy storage in reactance. There is no phase shift in a resistance. No electrical energy is stored in a resistor, but its matter does have a thermal capacity. Once its atoms are agitated by heat their inertia is evident in the resistance`s temperature. It takes time to cool.

Steve wrote: "Things get all messed up."

As old Carson Robinson sang: "Life gets tedious, Don`t it?" Steve gave the formulas for capacitive and inductive reactances. They have always seemed convenient to me. Steve says: "---we call this new kind of (corrupted) resistance "Impedance"."

No. Impedance is the general name for opposition to electricity. Resistance is the specialized name for the case in which the impedance alone causes no delay and stores no electrical energy. All electrical impedance is defined by its voltage to current ratio, and is the total opposition (resistance and reactance) a circuit offers to the flow of electricity. For d-c, reactance doesn`t count. For a-c, total opposition consists of the vector (phasor) sum of resistance and reactance in a circuit. Impedance is measured in ohms and its reciprocal is called admittance. The symbol for impedance is Z. The symbol for admittance is Y.

Steve also writes:
"Poof! BUT converts it into radio frequency energy (RF) also called an electromagnetic field or wave."

Yes. A radio wave is r-f energy which has escaped the confines of wires and doesn`t come back. Whenever wires in open space carry high-frequency current, some energy gets away as a radiated field, having a strength that varies inversely with the distance.

Best regards, Richard Harrison, KB5WZI

2859. FS: KLM 432-30 LBX BOOMERS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 16:15:34 UTC
From: n2ion@aol.com
Message-ID: <20040220111534.10232.00000047@mb-m03.aol.com>
Source record: 99681

I HAVE FOR SALE 3-KLM 432-30 LBX BOOMERS
EACH YAGI IS 30 ELEMENTS ON 432MHz

PRICE-$135 EACH FIRM + S & H

2860. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 16:21:12 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <YtqZb.366155$na.563123@attbi_s04>
Source record: 99682

Cecil,
Let me show you what I mean about being specific when comparing antennas.
You spoke of a "simple" dipole that was not rotatable that had a high gain
per Eznec
The dipole I believe was for 10 metres with a lobe gain in the order of 10
db,
you didn't say what the minimum gain was which is crucial when comparing
antennas
So I just designed an antenna with a computor program for 160 metres based
around a patent write up of mine which probably will not be issued until
sometime next year.
The beam is rotatable and is at a height of
20 metres. The max gain is 7.35 dbi at 87degrees. Minimum gain at this TOA
is a few db less. Compared to another antenna, and that is what you are
doing, the gain exceeds a Beverage at any angle over 10 degrees even if the
beverage was rotatable.
Unlike the Beverage the antenna can be used for transmitting. Now my antenna
in the backyard has slightly different dimensions because the material used
was available so the gain is down somewhat and ofcourse the ground is not
perfect.
So Cecil, that is what I mean about supplying relevant data tho perhaps it
would be better if I described the antenna
as a very SHORT dipole.
Cecil you now have a SPECIFIC antenna that can be used for comparison
purposes based on keyboard design that is horizontally polarised
Cheers
Art Unwin KB9MZ
PS Nothing wrong with the browser I am just abstaining for a while because
of work time limits at this time.
"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4029751b_1@corp.newsgroups.com...
> Art Unwin KB9MZ wrote:
> > Cecil we have severe weather here that it requires a real snow job from
me
> > to emerge back into this particular thread !!!!!
>
> Just remember when Einstein said, "God doesn't roll dice", one of the QED
> physicists replied that, "Not only does God roll dice, he rolls them in
> the dark." :-) What's wrong with your browser?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>

> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2861. FS: KLM 17M-3 ELEMENT YAGI

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 16:26:09 UTC
From: n2ion@aol.com
Message-ID: <20040220112609.10232.00000050@mb-m03.aol.com>
Source record: 99683

I HAVE FOR SALE A NEW KLM 3 ELEMENT, 17M YAGI ON AN 18' BOOM.
ANTENNA IS NEW, BUT HAS BEEN ASSEMBLED & NEVER USED.

PRICE IS $300 + S & H

2862. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 17:16:05 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <phrZb.13051$hm4.10480@newsread3.news.atl.earthlink.net>
Source record: 99684

Richard:

Hmmm....

Impedance... let's give it its' proper due!

It was the self taught "electrician", and ultimately Fellow of the Royal Society, Oliver Heaviside, FRS
[1850 - 1925] who was born in the London slums to a very poor family and who had never attended
any school beyond the age of 16 who was the person who coined, defined and first used the terms
"impedance", "admittance", and "reactance".

Oliver Heaviside also gave us Maxwell's Equations in the form we now know them. Maxwell
wrote his equations in the form of 22 separate equations using the arcane method of "quaternions".
Heaviside simplified those 22 equations given by Maxwell down to the four simple equations with
two auxilliary constituent relations that we now know and love.

James Clerk Maxwell was a Cambridge educated mathematician from an affluent and educated family.
Oliver Heaviside was a poor kid from the London slums who had to go out to work at age 16 and
never saw the inside of a college or university!

Heaviside never appeared to receive the citation at the ceremony to which he was invited when he
was inducted as a Fellow of the Royal Society after he was duly elected to that lofty title by the
greatest Scientists of the day.

"Impedance"... thank you Oliver!

--
Peter K1PO
Indialantic By-the-Sea, FL

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:25405-40362E97-50@storefull-3254.bay.webtv.net...
> Steve Nosko wrote:
> "Apparently, because of the way the big bang occurred, when we put a
> voltage across a resistor current flows in a manner that we discovered
> follows the equation called Ohm`s law."
>

> Big bang? Ohm wasn`t around then. He lived 1787 to 1854. Ohm discovered
> that current in an electrical resistance is proportional to voltage.
>
> Resistance is the type of impedance (opposition to electrical current)
> in which current is locked in step to the applied voltage.
>
> The item called a resistor is the type of resistance that converts
> electrical energy to heat energy.
>
> Not all resistances are resistors. Some resistances don`t convert
> electrical energy directly into heat. In these non-dissipative
> resistances, current drop is in-phase with the applied volts, or voltage
> dropped across the resistance is in-phase with current through the
> resistance, but it does not cause energy loss. An example of lossless
> resistance is the Zo or surge impedance of a transmission line. Zo is
> caused by the distributed inductance and capacitance of the line, but
> current in the line is in-phase with the voltage across the line. Zo is
> the voltage to current ratio of the waves traveling in either direction
> on the transmission line. Zo = volts/amps, yet converts no energy to
> heat in the lossless line. Another example of lossless resistance is
> "radiation resistance". This is the desired antenna load, so it is
> hardly a loss. Loss in the wire, earth, and insulators of the antenna
> are resistive loads which produce heat but don`t help the signal.
>
> An ohm is the unit of resistance. It is defined at 0-degrees C, of a
> uniform column of mercury 106.300 cm long and weighing 14.451 grams. One
> ohm is the resistance which drops one voltt when a current of one amp is
> passed through it.
>
> Reactances are also defined by their volts to amps ratios (ohms). The
> big difference is that reactance does no work and produces no heat.
> Opposition to electrical current comes from delay required to store ard
> retrieve energy to and from fields in and around the reactances. Current
> lags the applied voltage in an inductance. At time = 0, no current flows
> into an inductance, but rises exponentially from the instant of initial
> energization. Current leads the applied voltage into a capacitance. At
> time = 0, full current flows into a capacitance but voltage across the
> capacitance is zero and rises exponentially from the instant of initial
> energization.
>
> In an a-c circuit, the current through an inductance lags the voltage by
> 90-degrees. In a a-c circuit, the current through a capacitance leads
> the voltage by 90-degrees. Phase shifts are produced by energy storage
> in reactance. There is no phase shift in a resistance. No electrical
> energy is stored in a resistor, but its matter does have a thermal
> capacity. Once its atoms are agitated by heat their inertia is evident
> in the resistance`s temperature. It takes time to cool.
>
> Steve wrote: "Things get all messed up."
>

> As old Carson Robinson sang: "Life gets tedious, Don`t it?" Steve gave
> the formulas for capacitive and inductive reactances. They have always
> seemed convenient to me. Steve says: "---we call this new kind of
> (corrupted) resistance "Impedance"."
>
> No. Impedance is the general name for opposition to electricity.
> Resistance is the specialized name for the case in which the impedance
> alone causes no delay and stores no electrical energy. All electrical
> impedance is defined by its voltage to current ratio, and is the total
> opposition (resistance and reactance) a circuit offers to the flow of
> electricity. For d-c, reactance doesn`t count. For a-c, total opposition
> consists of the vector (phasor) sum of resistance and reactance in a
> circuit. Impedance is measured in ohms and its reciprocal is called
> admittance. The symbol for impedance is Z. The symbol for admittance is
> Y.
>
> Steve also writes:
> "Poof! BUT converts it into radio frequency energy (RF) also called an
> electromagnetic field or wave."
>
> Yes. A radio wave is r-f energy which has escaped the confines of wires
> and doesn`t come back. Whenever wires in open space carry high-frequency
> current, some energy gets away as a radiated field, having a strength
> that varies inversely with the distance.
>
> Best regards, Richard Harrison, KB5WZI
>

2863. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 17:27:17 UTC
From: "Z.Z." <nobody@nowhere.com>
Message-ID: <Xns94956A5A87B2Anobodynowhere@68.6.19.6>
Source record: 99685

Cecil Moore wrote:

> Wood 2x4's come in 20 ft. lengths although not every lumber store
> carries that length. Or you can stack shorter 2x4's side by side and
> staggered to form a 4x4 base. ...

Thanks for the info. Looks do-able. How do you plant these in the ground? Another 2x4 several feet into the ground? And do you use intermediate guy wires? I've often thought about building a mast like they've shown in the Handbook for years, altho they specify 22' 2x3's. Yours seems a bit more rugged and easier.

73...

2864. folding antenna, can it be refolded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 18:17:19 UTC
From: cme <zcadrian@yahoo.com>
Message-ID: <J-2dndgKmOEl0qvdRVn-sQ@look.ca>
Source record: 99686

I was wondering if a antenna is shipped folded and then erected . Can the same antenna be refolded without damaging the elements. I have the chance to buy a radioshack vhf/uhf antenna that came folded but dont know if it can be refolded without damaging the elements. In other words are they locked and you have force them to refold and damage them.

2865. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 18:54:48 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <YJsZb.18856$wD5.14794@nwrddc03.gnilink.net>
Source record: 99687

I have been convinced that "impedance" is the ratio of force to response
in any media. That has worked well for me. Maybe there are readers who can
set me straight if I've been wrong.

Jerry

"Peter O. Brackett" <no_such_address@ix.netcom.com> wrote in message
news:phrZb.13051$hm4.10480@newsread3.news.atl.earthlink.net...
> Richard:
>
> Hmmm....
>
> Impedance... let's give it its' proper due!
>
> It was the self taught "electrician", and ultimately Fellow of the Royal
> Society, Oliver Heaviside, FRS
> [1850 - 1925] who was born in the London slums to a very poor family and
who
> had never attended
> any school beyond the age of 16 who was the person who coined, defined and
> first used the terms
> "impedance", "admittance", and "reactance".
>
> Oliver Heaviside also gave us Maxwell's Equations in the form we now know
> them. Maxwell
> wrote his equations in the form of 22 separate equations using the arcane
> method of "quaternions".
> Heaviside simplified those 22 equations given by Maxwell down to the four
> simple equations with
> two auxilliary constituent relations that we now know and love.
>
> James Clerk Maxwell was a Cambridge educated mathematician from an
affluent
> and educated family.
> Oliver Heaviside was a poor kid from the London slums who had to go out to
> work at age 16 and
> never saw the inside of a college or university!
>
> Heaviside never appeared to receive the citation at the ceremony to which
he
> was invited when he
> was inducted as a Fellow of the Royal Society after he was duly elected to
> that lofty title by the
> greatest Scientists of the day.
>

> "Impedance"... thank you Oliver!
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
>
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:25405-40362E97-50@storefull-3254.bay.webtv.net...
> > Steve Nosko wrote:
> > "Apparently, because of the way the big bang occurred, when we put a
> > voltage across a resistor current flows in a manner that we discovered
> > follows the equation called Ohm`s law."
> >
> > Big bang? Ohm wasn`t around then. He lived 1787 to 1854. Ohm discovered
> > that current in an electrical resistance is proportional to voltage.
> >
> > Resistance is the type of impedance (opposition to electrical current)
> > in which current is locked in step to the applied voltage.
> >
> > The item called a resistor is the type of resistance that converts
> > electrical energy to heat energy.
> >
> > Not all resistances are resistors. Some resistances don`t convert
> > electrical energy directly into heat. In these non-dissipative
> > resistances, current drop is in-phase with the applied volts, or voltage
> > dropped across the resistance is in-phase with current through the
> > resistance, but it does not cause energy loss. An example of lossless
> > resistance is the Zo or surge impedance of a transmission line. Zo is
> > caused by the distributed inductance and capacitance of the line, but
> > current in the line is in-phase with the voltage across the line. Zo is
> > the voltage to current ratio of the waves traveling in either direction
> > on the transmission line. Zo = volts/amps, yet converts no energy to
> > heat in the lossless line. Another example of lossless resistance is
> > "radiation resistance". This is the desired antenna load, so it is
> > hardly a loss. Loss in the wire, earth, and insulators of the antenna
> > are resistive loads which produce heat but don`t help the signal.
> >
> > An ohm is the unit of resistance. It is defined at 0-degrees C, of a
> > uniform column of mercury 106.300 cm long and weighing 14.451 grams. One
> > ohm is the resistance which drops one voltt when a current of one amp is
> > passed through it.
> >
> > Reactances are also defined by their volts to amps ratios (ohms). The
> > big difference is that reactance does no work and produces no heat.
> > Opposition to electrical current comes from delay required to store ard
> > retrieve energy to and from fields in and around the reactances. Current
> > lags the applied voltage in an inductance. At time = 0, no current flows
> > into an inductance, but rises exponentially from the instant of initial
> > energization. Current leads the applied voltage into a capacitance. At

> > time = 0, full current flows into a capacitance but voltage across the
> > capacitance is zero and rises exponentially from the instant of initial
> > energization.
> >
> > In an a-c circuit, the current through an inductance lags the voltage by
> > 90-degrees. In a a-c circuit, the current through a capacitance leads
> > the voltage by 90-degrees. Phase shifts are produced by energy storage
> > in reactance. There is no phase shift in a resistance. No electrical
> > energy is stored in a resistor, but its matter does have a thermal
> > capacity. Once its atoms are agitated by heat their inertia is evident
> > in the resistance`s temperature. It takes time to cool.
> >
> > Steve wrote: "Things get all messed up."
> >
> > As old Carson Robinson sang: "Life gets tedious, Don`t it?" Steve gave
> > the formulas for capacitive and inductive reactances. They have always
> > seemed convenient to me. Steve says: "---we call this new kind of
> > (corrupted) resistance "Impedance"."
> >
> > No. Impedance is the general name for opposition to electricity.
> > Resistance is the specialized name for the case in which the impedance
> > alone causes no delay and stores no electrical energy. All electrical
> > impedance is defined by its voltage to current ratio, and is the total
> > opposition (resistance and reactance) a circuit offers to the flow of
> > electricity. For d-c, reactance doesn`t count. For a-c, total opposition
> > consists of the vector (phasor) sum of resistance and reactance in a
> > circuit. Impedance is measured in ohms and its reciprocal is called
> > admittance. The symbol for impedance is Z. The symbol for admittance is
> > Y.
> >
> > Steve also writes:
> > "Poof! BUT converts it into radio frequency energy (RF) also called an
> > electromagnetic field or wave."
> >
> > Yes. A radio wave is r-f energy which has escaped the confines of wires
> > and doesn`t come back. Whenever wires in open space carry high-frequency
> > current, some energy gets away as a radiated field, having a strength
> > that varies inversely with the distance.
> >
> > Best regards, Richard Harrison, KB5WZI
> >
>
>

2866. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 19:22:00 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402201122.658bb7dd@posting.google.com>
Source record: 99688

Tom,I agree with much of what you say but the problem goes much deeper
than that, and much of the blame rests with academics taught.
Let us look at what is called by some as a 'simple dipole'.
The dipole is very inefficient radiator.
The only claim that you can place on it is that it is has a low
impedance
at resonance...Period. There is no calculation available in any of the
touted books that maximum gain per unit length is design related to a
dipole! The dipole is only a reference that other antennas can be
related to even tho it is a very inefficient radiator per unit length.
Over time academics have made the dipole as something very efficient
about which every advance must be related .
That Tom is very incorrect and it is that which is what prevents the
emergence of new ideas that push the envelope. If one just spouts what
is in present day books then they are just followers that suck up the
dipole aproach which thus prevents them from contributing anything
that pushes out the envelope. Education
can only take you so far and it is dependent on those who have
received an education to push the envelope further. If one doesn't do
this then they are just quoting things that were told to them or they
read in some book and thus are not equiped to pushing the envelope.
Until the simple dipole is shead of its illusionary powers by the
academics who write the books newcomers can only copy, and not
progress. Ofcourse, academics who just memorise can still attack
people, those who do not agree with them, in a personal way in the
hope that a raucous crowd of peasants will echo the academics trash
around the Gillotine.

Regards
Art

tdonaly@aol.com (Tdonaly) wrote in message
news:<20040219184106.20400.00000031@mb-m04.aol.com>...
> Steve's info will get you a beginners understanding of circuit
> theory which is based on a low-frequency, quasi-static simplification
> of electromagnetic theory. Unfortunately, anything that has any
> appreciable length, such as a transmission line or an antenna, or
> a long coil of wire as Yuri and Cecil are arguing about,
> can't be adequately explained by simple circuit theory; you have to
> study wave mechanics to get any real idea of what is happening
> in these situations. That isn't the end of it, though, since in order
> to understand what is happening when an object radiates, you
> have to understand Maxwell's equations. In order to understand
> Maxwell's equations, you'd better know vector calculus. That isn't the
> end, either, but it's as close as any *normal* human wants to go.

> Whenever someone who was taught circuit theory tries to
> apply its vocabulary and concepts to explain all electromagnetic
> phenomena, that someone is going to run into trouble and
> come up with a multitude of idiocies for which which he'll find no end of
> people ready to criticize him.
> This is the problem: Cecil and Yuri want to explain the current taper
> through a long solenoidal coil using the vocabulary and concepts of
> circuit theory rather than the difficult but more precise
> language of electromagnetic theory. So far they've failed
> miserably, not least because they don't even seem to have
> a coherent idea of what they mean by "current flow." I
> wish them luck, but I hope no one takes any of their
> ideas seriously.
> 73,
> Tom Donaly, KA6RUH
>
>
>
>
>
>
> Steve wrote,
> >
> >Unable to resist at least trying to provide the basis for some
> >understanding, Steve proceeds.
> >
Snip

2867. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 19:26:03 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c15n3olhh1@newshost.mot.com>
Source record: 99689

"Butch" <lynyrd@cableone.net> wrote in message
news:103afo66pk24dfa@corp.supernews.com...
> Hi-Ho Stevo, Outstanding reply to Jimbo and a bunch of us out here that
> do not really "know" all that we "undetstand" about electronics! There,
> I said it for the bunch! No flames from the huddling masses now!
> Butch KF5DE
>
> Steve Nosko wrote:
> > Unable to resist at least trying to provide the basis for some
> > understanding, Steve proceeds.
> > Jim, you know who you are...
> snippity-snip

Thanks, Butch. That was the intent. Glad it it helps. Please don't huddle
and don't be so snippity (; -)
--
Steve N, K,9;d, c. i My email has no u's.

2868. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 19:36:26 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c15nn7mfk1@newshost.mot.com>
Source record: 99690

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20040219184106.20400.00000031@mb-m04.aol.com...
> Steve's info will get you a beginners understanding of circuit
> theory

That WAS the intent.

> which is based on a low-frequency, quasi-static simplification
> of electromagnetic theory.

Yikes! Call it what you like.

> Unfortunately, anything that has any
> appreciable length, such as a transmission line or an antenna...
> wave mechanics to get any real idea of what is happening
> in these situations.

I guess you can call it "wave mechanics" if you like, but it IS true
that what happens on a transmission line is waves and this is quite
different from simple circuit theory. First you need the circuit theory,
though.

> That isn't the end of it, though, since in order
> to understand what is happening when an object radiates, you
> have to understand Maxwell's equations....vector calculus.

This I'll disagree with. It's been so long since I studied
Maxwell's equations, I can't even spell his name, but I can give a workable
explanatin of radiation that the beginner can understand and won't cause
trouble for any ham's purposes. Will it violate old Maxwell? I don't know
and don't care for my purposes and 90% of the people interested.

> That isn't the
> end, either, but it's as close as any *normal* human wants to go.

Whew! sure glad I'm *abnormal*.

> Whenever someone who was taught circuit theory tries to
> apply its vocabulary and concepts to explain all electromagnetic
> phenomena, that someone is going to run into trouble and
> come up with a multitude of idiocies for which which he'll find no end of
> people ready to criticize him.

Whoa... Sure glad I'm not trying to do THAT!

> This is the problem: Cecil and Yuri want to explain the current taper
> through a long solenoidal coil using the vocabulary and concepts of
> circuit theory rather than the difficult but more precise

> language of electromagnetic theory.

Sure glad I don't care and that I didn't tack my post onto theirs
thus indicating that I was trying to enter that discussion.

> >73 Steve--
> >Steve N, K,9;d, c. i My email has no u's.
> >
>
>

2869. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 19:39:36 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c15nt5mpk1@newshost.mot.com>
Source record: 99692

Well, then there's that too..

-- (:-)
Steve N, K,9;d, c. i My email has no u's.

"Butch" <lynyrd@cableone.net> wrote in message
news:103ajn05s611k28@corp.supernews.com...
> Time out!! You people are taking all this far to seriously. Just throw
> an aerial out the window, feed it to your rig via a tuner, and enjoy
> Amateur radio.
>
> Butch Magee KF5DE
>
> Tdonaly wrote:
> > Steve's info will get you a beginners understanding ...
> > ...quasi-static.
> > ...electromagnetic theory. ...
> > ...wave mechanics...
> > ...Maxwell's equations....
> > ...vector calculus.
> > ...any *normal* human...
> > ...multitude of idiocies
> > ...no end of people ready to criticize him.

2870. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 19:40:49 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c15nve$ms9$1@newshost.mot.com>
Source record: 99693

Oh yea! that too... I forgot "Maxwell"
--
Steve N, K,9;d, c. i My email has no u's.

"Ed Price" <edprice@cox.net> wrote in message
news:YFmZb.5138$C21.2768@fed1read07...
>
> "Butch" <lynyrd@cableone.net> wrote in message
> news:103ajn05s611k28@corp.supernews.com...
> > Time out!! You people are taking all this far to seriously. Just throw
> > an aerial out the window, feed it to your rig via a tuner, and enjoy
> > Amateur radio.
> >
> > Butch Magee KF5DE
>
>
> It just not that simple, Butch.
>
> I'm sure you have heard that Ham radio is a hobby that has many facets;
> construction, public service, contesting, field trips, QRP DX, etc. Some
of
> our members get their kicks merging theory with rag chewing. I don't think
> there's any structure to this sub-category, other than to require at least
> one mention of Maxwell in every discussion.
>
>
> Ed
> WB6WSN
>

2871. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 19:43:28 UTC
From: richardharrison@webtv.net
Message-ID: <25641-40366360-94@storefull-3257.bay.webtv.net>
Source record: 99691

Peter, K1PO wrote:
"Oliver heaviside was a poor kid from the London slums who had to go out to work at age 16 and never saw the inside of a college or university."

I am aware of Heaviside`s story. He was the idol of one of my professors who frerquently regaled us with heaviside stories, so he became one of my favorites too.

Maxwell is not diminished by his advantages. He had the mathematical background he needed to formulate his equations and the moxie to speculate that displacement current generates a magnetic field same as a conduction current does. This is the secret of radiation. Heaviside was able to improve on the calculus, and simplify and reorganize Maxwell`s work. Michael Faraday discovered electromagnetic induction and deserves a lot of credit too. Everybody benefits from the work of others in complicated fields. Faraday lived 1791-1867. Maxwell lived 1831-1879. Heaviside lived 1850-1925. This really was during a golden age for the British.

I had the Maxwell`s equations course many decades ago. Strangely enough, it was titled "Ultra High Frequency Techniques". You really had to read the syllabus to know what the course was about.

Best regards, Richard Harrison, KB5WZI

2872. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 19:58:06 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <403666CE.3C4E2BD2@uci.edu>
Source record: 99697

Cecil Moore wrote:

> Saying that you already knew everything that will ever be known
> is getting pretty old.

:-) I think that's your trick, Cecil. Funny how when you get backed into a corner you start doing a lot of projecting - projecting your very distinctive personality flaws onto others.

> Please don't tell me that the hard
> time you have been giving me was over an implied semantic context that
> everyone already understands is a standard accepted convention.

You started an enormous argument with a whole group of people on this newsgroup because of your alleged "accepted convention". Had you not worded the idea of a current taper in the way you did, you could have avoided much of it. Since I've supported Yuri's claim from the very beginning, my only point to all of this was to try to peruade you to put forward the most cogent argument. Obviously, you care for little other than the arguing part of it.

More alternating current does NOT go into one end of ANY series component than comes out the other. It's a completely stupid idea no matter how many words you use to try to get around it. It's just bloody wrong.

> >>Those currents are not standing still.
> >
> > Never said current stands still, Cecil.

> Would you like for me to re-post your posting that says the standing
> wave current doesn't move and never enters the coil?

Would you like for me to try to explain to you again what the words I used mean? Evidently I need to. Perhaps then you would be able to recite them more accurately.

> >>They are flowing
> >>in and out of the coil and have been proven not to be equal by actual
> >>measurements.
> >
> > Exactly what I've been saying ...
>
> Now everyone can see that you are just flat out lying.

I used exactly those words in a previous post, Cecil. You apparently have a pretty low opinion of 'everyone' if you think they're that

gullable. Although it does seem Steve fell for it hook, line, and sinker. I guess my congrats would be in order for that.

> You insisted that
> standing wave current does not flow into a coil and argued with me when

Nope. I'm on record here as having observed simply that standing waves stand, hence the name. The 'wave' does not move. As most others here were probably able to ascertain, I was illustrating the simple fact that the graph you refer to is a standing wave plot. A standing wave plot shows current amplitude as a function of postion. It doesn't show current moving in some direction - i.e. into the bottom or out of the top of something. Unless you're talking about wave propagation, there's no utility in that notion - particularly since any useful information about the waveforms is conveyed in the wave function equation.

> I said it did. Hint for you, Jim: The current cannot flow in and out
> without first flowing in, which you asserted doesn't happen.

:-) Is there no limit to how asinine you allow yourself to be?

73, Jim AC6XG

2873. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:02:36 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402201202.66ce4869@posting.google.com>
Source record: 99694

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40351aac$1_2@127.0.0.1>...
> Richard Clark wrote:
> > Mark's experience eclipses this nonsense of Flat Earth Socialist
> > rhetoric.
>
> Mark hasn't tried a 130 foot dipole on 10m at the same
> height as his vertical in the direction of one of the
> four 11 dBi at 7 deg lobes. Even with a perfect ground,
> his vertical tops out at about 5 dBi, a full s-unit
> below the dipole's best lobes.

Actually, I have tried it on 10m and most other bands. "I do have 80m
dipoles". But no, the dipole never beat the 5/8 GP. I've also tried a
40m dipole.
>
> Flat Earth thinking equates to asserting that a vertical
> monopole will beat a +11 dBi beam (or lobe).

It's like when I was out camping using a ladder line fed 80m, 130 ft
dipole.
I tried it on ten. It was pathetic due to the overly high takeoff
angles. I'm talking terrible. We couldn't contact anyone, although we
could hear a few. Bad...And yes, when modeled, that antenna had the
same gain you claim with yours, being it was exactly the same. Lamest
10m antenna I ever used. My whip on the car beat it like a lost step
child. In any direction. Like I said, gain numbers don't always tell
it all. MK

2874. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:03:13 UTC
From: richardharrison@webtv.net
Message-ID: <25641-40366801-96@storefull-3257.bay.webtv.net>
Source record: 99695

Jerry Martes wrote:
"I have never been convinced that "impedance" is the ratio of force to response in any media."

Jerry framed the question very nicely.

The logic seems simple. More force is required when resistance to change is higher. When current is very small despite high force, it must be due to high resistance.

Resistance proportional to force (volts) and inversely proportional to current (amps) seems perfectly logical to me. R=E/I

Best regards, Richard Harrison, KB5WZI

2875. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:15:40 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402201215.33688688@posting.google.com>
Source record: 99696

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40349ef9_4@corp.newsgroups.com>...
> Mark Keith wrote:
> > Yep, I guess you could call me biased...I'd even take this farther and
> > speculate that the dipole even at a half wave "65 ft on 40m" would
> > have trouble beating the elevated vertical I had on long paths.
>
> But, Mark, you are neglecting physical efficiency. Divide the performance
> by the amount of metal required for each antenna and see what you get. :-)
> My dipole uses 1/2WL of wire. Your vertical uses how many wavelengths of
> wire?

Good grief.....What an argument you have here, Cecil....Like the
amount of wire used is pertinent to performance. But if you must know,
my GP used 5 lengths of 1/4 wave material. The radiator being fully
self supporting aluminum. The other four 1/4 wave lengths were of that
high $$$$ stuff called wire. Really broke me that antenna did...:(MK

2876. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:33:39 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40367014_3@corp.newsgroups.com>
Source record: 99698

Peter O. Brackett wrote:
> QED is "lumped" *not* "distributed".
> What???
> Hey... give it up man! Distributed is passe...
> Quanta and lumps rule!

Well Peter, I have been trying to teach the Flat Earth engineers about the difference between movement of electrons and movement of photons but it hasn't made much of a dent in lumped concrete brains. Maybe you can say something about electron movement (dQ/dt) Vs the photons generated by the acceleration of those electrons.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2877. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:34:46 UTC
From: richardharrison@webtv.net
Message-ID: <28277-40366F66-91@storefull-3252.bay.webtv.net>
Source record: 99701

Art, KB9MZ wrote:
"The dipole is a very inefficient radiator."

Kraus, unfortunately, wasn`t one of my books until recently. I don`t have the words memorized or know where they appear as I do with some of Terman.

I seem to remember Kraus saying 95% efficiency was not unusual as a dipole efficiency. As there are so many variations, it`s like a baseball statistic, there must be a statistic that fits somewhere.

In any case, "efficient" is only as compared with similar devices. Recall that dBd is the norm as an isotropic antenna is only a theoretical creature. Catalogs are filled with antenna characteristics as compared with a 1/2-wave dipole in free space. It is the standard of comparison. It could hardly be correctly called inefficient.

Best regards, Richard Harrison, KB5WZI

2878. Re: Mark Keith?? vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:40:58 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402201240.7bdc6df2@posting.google.com>
Source record: 99699

bb <bb@private.com> wrote in message news:<4034FC98.8221DBEC@private.com>...
> Please describe your vertical in detail.
>
> Does it have to be elevated, # of radials, length of radials, etc.
>
> VK is exactly where I'm trying to go on 40m from the NW US.

It has to be elevated if you want to avoid many, many radials. Mine
was a standard 1/4 wave ground plane, just like you would see on 2m ,
or any other band. I used an old heavy duty 5/8 CB antenna for
material, and added tubing to make it 32 ft tall. The tubing at the
top was very thin, and the antenna was self supporting.
It used 4 wire radials which sloped towards the ground at about 45
degrees.
The base was mounted on a 36 ft radio shack pushup mast. The radials
also help out as guys. In considering the number of radials, you must
consider the antennas height above ground in wavelength. If you use
the "standard" 120 radials on a ground mount as a benchmark, as you
raise the antenna, less radials are needed to equal this same level of
performance. At 1/8 wave, "appx 15-20 ft on 40m", you need appx 60
radials to equal 120 on the ground. At 1/4 wave, appx 8-10 radials, at
a 1/2 wave up, 3-4 radials. Each of these scenarios has appx equal
ground losses.
So you can see that my antenna at 1/4 wave up, using 4 radials, was
about equal to a ground mount using about 50-60 radials. This is still
quite good performance, but I could have slightly improved by doubling
to 8 radials. That would have given me losses appx equal of the 120
radials on the ground. You put up one like I used or better, and you
will say adios to that dipole on paths to VK land. If you really want
to brown the food over there, put up a bobtail curtain and run a KW.
"I did usually run a KW myself". Heck, even to the west coast, many
nights I'd have guys coming up on freq and wondering what the heck I
was running. They would often say I was the loudest thing on the band
at that time. And thats just at 1500 miles away. You start seeing a
bigger differences the farther away you work. I popped in on a JA
contester one night. Gave him a quick one shot call, and he jumped
right back and said I was 20 over 9 in Tokyo. I think I startled
him....I'd never be able to do that on my low dipole. :/ MK

2879. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:41:31 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <%huZb.24701$Xp.104370@attbi_s54>
Source record: 99700

Art, did you intend to compare a 'CLOUD WARMER' against an 'OVER THE HORIZON' class of antenna? Isn't that apples and oranges?

BTW, who limits Beverages to received ONLY? There are some very long Beverages in VK land for long haul low band DX.

DD, W1MCE

aunwin wrote:
SNIP

> So I just designed an antenna with a computor program for 160 metres based
> around a patent write up of mine which probably will not be issued until
> sometime next year.
> The beam is rotatable and is at a height of
> 20 metres. The max gain is 7.35 dbi at 87degrees. Minimum gain at this TOA
> is a few db less. Compared to another antenna, and that is what you are
> doing, the gain exceeds a Beverage at any angle over 10 degrees even if the
> beverage was rotatable.
> Unlike the Beverage the antenna can be used for transmitting.

SNIP

2880. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:44:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40367298_3@corp.newsgroups.com>
Source record: 99704

aunwin wrote:
> So Cecil, that is what I mean about supplying relevant data ...

Well, in a nutshell, I route my dipole such that the four 11 dBi lobes on 10m are aimed at the English speaking land masses of the world. That works like a charm (for me). If I ever have trouble reading someone, I switch over to my rotatable dipole with only a 9 dBi gain and TOA of 10 deg to see if the QSO can be improved. I seriously doubt that any vertical monopole can beat my rotatable dipole with 9dBi gain and TOA of 10 degrees. I also doubt that any two element vertical phased array can beat 9 dBi at 10 deg TOA.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2881. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:45:06 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <lluZb.89853$uV3.553106@attbi_s51>
Source record: 99702

Yep!! Very Good Coffee!!!!!!!!!!

Steve Nosko wrote:

> Oh yea! that too... I forgot "Maxwell"

2882. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:47:34 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <GnuZb.89874$uV3.553140@attbi_s51>
Source record: 99703

I just love it when those born in the slums of London even tho they went to work when they were 16 they had enough smarts
to go head to head with the experts. It must be a result of the morning fog from the river where one learns quickly what is real
and what is not. Going to work for a living
at 16 is not all that bad since it allows you to make personal decisions that can benefit
before the onset of age makes it too late.
An East Ender
Art

"Peter O. Brackett" <no_such_address@ix.netcom.com> wrote in message news:phrZb.13051$hm4.10480@newsread3.news.atl.earthlink.net...
> Richard:
>
> Hmmm....
>
> Impedance... let's give it its' proper due!
>
> It was the self taught "electrician", and ultimately Fellow of the Royal
> Society, Oliver Heaviside, FRS
> [1850 - 1925] who was born in the London slums to a very poor family and who
> had never attended
> any school beyond the age of 16 who was the person who coined, defined and
> first used the terms
> "impedance", "admittance", and "reactance".
>
> Oliver Heaviside also gave us Maxwell's Equations in the form we now know
> them. Maxwell
> wrote his equations in the form of 22 separate equations using the arcane
> method of "quaternions".
> Heaviside simplified those 22 equations given by Maxwell down to the four
> simple equations with
> two auxilliary constituent relations that we now know and love.
>
> James Clerk Maxwell was a Cambridge educated mathematician from an affluent
> and educated family.
> Oliver Heaviside was a poor kid from the London slums who had to go out to
> work at age 16 and
> never saw the inside of a college or university!
>
> Heaviside never appeared to receive the citation at the ceremony to which

he
> was invited when he
> was inducted as a Fellow of the Royal Society after he was duly elected to
> that lofty title by the
> greatest Scientists of the day.
>
> "Impedance"... thank you Oliver!
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
>
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:25405-40362E97-50@storefull-3254.bay.webtv.net...
> > Steve Nosko wrote:
> > "Apparently, because of the way the big bang occurred, when we put a
> > voltage across a resistor current flows in a manner that we discovered
> > follows the equation called Ohm`s law."
> >
> > Big bang? Ohm wasn`t around then. He lived 1787 to 1854. Ohm discovered
> > that current in an electrical resistance is proportional to voltage.
> >
> > Resistance is the type of impedance (opposition to electrical current)
> > in which current is locked in step to the applied voltage.
> >
> > The item called a resistor is the type of resistance that converts
> > electrical energy to heat energy.
> >
> > Not all resistances are resistors. Some resistances don`t convert
> > electrical energy directly into heat. In these non-dissipative
> > resistances, current drop is in-phase with the applied volts, or voltage
> > dropped across the resistance is in-phase with current through the
> > resistance, but it does not cause energy loss. An example of lossless
> > resistance is the Zo or surge impedance of a transmission line. Zo is
> > caused by the distributed inductance and capacitance of the line, but
> > current in the line is in-phase with the voltage across the line. Zo is
> > the voltage to current ratio of the waves traveling in either direction
> > on the transmission line. Zo = volts/amps, yet converts no energy to
> > heat in the lossless line. Another example of lossless resistance is
> > "radiation resistance". This is the desired antenna load, so it is
> > hardly a loss. Loss in the wire, earth, and insulators of the antenna
> > are resistive loads which produce heat but don`t help the signal.
> >
> > An ohm is the unit of resistance. It is defined at 0-degrees C, of a
> > uniform column of mercury 106.300 cm long and weighing 14.451 grams. One
> > ohm is the resistance which drops one voltt when a current of one amp is
> > passed through it.
> >
> > Reactances are also defined by their volts to amps ratios (ohms). The

> > big difference is that reactance does no work and produces no heat.
> > Opposition to electrical current comes from delay required to store ard
> > retrieve energy to and from fields in and around the reactances. Current
> > lags the applied voltage in an inductance. At time = 0, no current flows
> > into an inductance, but rises exponentially from the instant of initial
> > energization. Current leads the applied voltage into a capacitance. At
> > time = 0, full current flows into a capacitance but voltage across the
> > capacitance is zero and rises exponentially from the instant of initial
> > energization.
> >
> > In an a-c circuit, the current through an inductance lags the voltage by
> > 90-degrees. In a a-c circuit, the current through a capacitance leads
> > the voltage by 90-degrees. Phase shifts are produced by energy storage
> > in reactance. There is no phase shift in a resistance. No electrical
> > energy is stored in a resistor, but its matter does have a thermal
> > capacity. Once its atoms are agitated by heat their inertia is evident
> > in the resistance`s temperature. It takes time to cool.
> >
> > Steve wrote: "Things get all messed up."
> >
> > As old Carson Robinson sang: "Life gets tedious, Don`t it?" Steve gave
> > the formulas for capacitive and inductive reactances. They have always
> > seemed convenient to me. Steve says: "---we call this new kind of
> > (corrupted) resistance "Impedance"."
> >
> > No. Impedance is the general name for opposition to electricity.
> > Resistance is the specialized name for the case in which the impedance
> > alone causes no delay and stores no electrical energy. All electrical
> > impedance is defined by its voltage to current ratio, and is the total
> > opposition (resistance and reactance) a circuit offers to the flow of
> > electricity. For d-c, reactance doesn`t count. For a-c, total opposition
> > consists of the vector (phasor) sum of resistance and reactance in a
> > circuit. Impedance is measured in ohms and its reciprocal is called
> > admittance. The symbol for impedance is Z. The symbol for admittance is
> > Y.
> >
> > Steve also writes:
> > "Poof! BUT converts it into radio frequency energy (RF) also called an
> > electromagnetic field or wave."
> >
> > Yes. A radio wave is r-f energy which has escaped the confines of wires
> > and doesn`t come back. Whenever wires in open space carry high-frequency
> > current, some energy gets away as a radiated field, having a strength
> > that varies inversely with the distance.
> >
> > Best regards, Richard Harrison, KB5WZI
> >
>
>

2883. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:49:21 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403673c7_3@corp.newsgroups.com>
Source record: 99706

Z.Z. wrote:
> How do you plant these in the ground?

Post hole digger. Two feet in solid clay is plenty of
support for a guyed system, at least around here.

> And do you use intermediate guy wires?

Yep, at the 2x4 to fiberglas pole interface - otherwise
the 2x4's will warp something fierce.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2884. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 20:50:12 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0402201250.21e7b4f4@posting.google.com>
Source record: 99705

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40304811_5@corp.newsgroups.com>...
> Art Unwin KB9MZ wrote:
> > Re fibre glass pole. How is it made? Solid or hollow?
>
> They have both solid and hollow, round and square.
>
> > Can you supply any details?
>
> Here's where I get mine in Houston. The one I like comes in
> 40 foot lengths.
>
> http://www.ryanherco.com/auto/GRPindex.cfm?FAM=775&SEC=860&GRP=120

Nice stuff Cecil but how do you transport 40 footers home??

w3rv

2885. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:07:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <khsc301qg1etc3d3g92edb1cepk3saicb5@4ax.com>
Source record: 99707

On Fri, 20 Feb 2004 14:34:46 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:
>>Art, KB9MZ wrote:
>>"The dipole is a very inefficient radiator."
>
>.... It could hardly be correctly called inefficient.

Hi Richard,

We are back into this stale wheeze about efficiency "per unit length"
which is the same siren song of the cfa.

Put one out in the field, measure it against one of those "inefficient
radiators" and we find it roughly -30dB more "efficient" than the
standard BCB antenna.

The cfa may well be more efficient "per unit length" because it costs
less in steel and is smaller, its coverage follows that downward
spiral too. On those terms, hoisting a dummy load 30 feet into the
air would be far more efficient "per unit length" with roughly -60dB
more "efficiency."

Properly speaking, this new usage of "efficiency" should have been
confined to the thread Semantic Nonsense where we could properly
appreciate the ratio:

Semantic Nonsense + Nonsense

Nonsense

As any adept calculator puncher can appreciate, almost anything said
shows more than 100% efficiency. :-)

The acid test of the capitalist broadcast marketplace has shown not
one cfa sold. Now, in the socialist world, like Egypt, they had one
(1) provisional sale? If there were still an Iron Curtain, they would
have bought this nonsense up like Pravda at the red square newsstands.
Even at that, the Iron Curtain would probably be a necessary
resonating structure to make it work.

73's
Richard Clark, KB7QHC

2886. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:16:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40367a1f_3@corp.newsgroups.com>
Source record: 99708

Jim Kelley wrote:
> More alternating current does NOT go into one end of ANY series
> component than comes out the other. It's a completely stupid idea no
> matter how many words you use to try to get around it. It's just bloody
> wrong.

BS, Jim. It happens all the time in distributed networks, especially in transmission lines with reflections. You are so hung up on lumped circuit theory that you have forgotten there ever was such a thing as distributed network analysis. I notice you have deleted everything in my postings that proves you wrong. One wonders why.

Hint for you, Jim: The current varies from point to point all up and down a transmission line with reflections. Saying that the current doesn't vary in a transmission line with reflections is absolutely ridiculous. The AC current at a current node may be zero. The AC current at a current loop may be 100 amps. Jim, by any stretch of the imagination, zero amps is NOT equal to 100 amps.

For instance, for an open-circuited 1/4WL stub, the current flowing into the stub is very high. The current at the open end is zero. How you can assert that they are equal is beyond belief.

> Nope. I'm on record here as having observed simply that standing waves
> stand, hence the name. The 'wave' does not move.

But the subject isn't waves, it is current. Standing wave current CANNOT stand still. Within the standing wave, the current is flowing in the opposite direction every 1/2 cycle. Why is that so difficult for you to comprehend?

> Is there no limit to how asinine you allow yourself to be?

If quoting your ridiculous assertions makes me asinine, then so be it. How you can assert that there is a current taper in a coil, yet argue that the current cannot be different at each end of the coil is pathological. If the current cannot be different, where does the current taper come from?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2887. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:20:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40367b2e_3@corp.newsgroups.com>
Source record: 99709

Mark Keith wrote:
> Actually, I have tried it on 10m and most other bands. "I do have 80m
> dipoles". But no, the dipole never beat the 5/8 GP.

Fed with coax, and no doubt, laying on the ground.

> It's like when I was out camping using a ladder line fed 80m, 130 ft
> dipole. I tried it on ten. It was pathetic due to the overly high takeoff
> angles. I'm talking terrible.

Perhaps, you had a cold solder joint (maybe on purpose so you could
report what you are reporting?) Your results just don't make sense.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2888. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:22:48 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40367b98_3@corp.newsgroups.com>
Source record: 99710

Mark Keith wrote:
> Good grief.....What an argument you have here, Cecil...

Good grief, Mark. Would you please learn what :-) means.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2889. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:26:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40367c78_3@corp.newsgroups.com>
Source record: 99712

Richard Clark wrote:
> And "somehow?" This adverb presumes odds for which there were never
> any chance to offer odds for in the first place. At least such
> statements are consistent with the topic (you keeping notes Steve?).

The word, "somehow", in that context, Richard, is reserved for two-year
olds and r.r.a.a readers with the comprehension level of a two-year old.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2890. Re: folding antenna, can it be refolded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:28:30 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnc3cuvt.2a3p.bit-bucket@localhost.config.com>
Source record: 99711

On Fri, 20 Feb 2004 13:17:19 -0500, cme hath writ:
> I was wondering if a antenna is shipped folded and then erected . Can the
> same antenna be refolded without damaging the elements. I have the chance to
> buy a radioshack vhf/uhf antenna that came folded but dont know if it can
> be refolded without damaging the elements. In other words are they locked
> and you have force them to refold and damage them.

In most cases - yes, the elements can be re-parked in their shipping
postion. As you may have guessed: the antenna is not "designed" for
such use -- but, if you are careful, it can be done many times.
Suggestion: Use gloves -- the configuration is designed for the easy
"leveraging" of the elements out into their "locked" positions.
It's when you want to un-lock them and re-stow them that you are
faced with futzing with the stamped metal pieces that do the
locking.

I have a Ch2 TV antenna I've modified for use on 6M, and I
transport it to and from mountain tops with the elements in
the "stowed" position.

After some use, you'll probably need to use large pliers to
re-"tweak" the setting of the stamped metal locking pieces.

YMMV: Every manufacturer may have different implementations
of the locking scheme -- and even different implementations
amongst its various models,

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | config.com | DM68mn SK

2891. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:32:02 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40367dc3_3@corp.newsgroups.com>
Source record: 99713

Richard Harrison wrote:

> Art, KB9MZ wrote:
> "The dipole is a very inefficient radiator."
>
> I seem to remember Kraus saying 95% efficiency was not unusual as a
> dipole efficiency.

I don't think that's the efficiency that Art is talking about. Art's
efficiency seems to be defined as the power delivered to the receiver
divided by the power sourced by the transmitter.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2892. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:36:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40367ecb$1_3@corp.newsgroups.com>
Source record: 99714

Brian Kelly wrote:

> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>http://www.ryanherco.com/auto/GRPindex.cfm?FAM=775&SEC=860&GRP=120
>
> Nice stuff Cecil but how do you transport 40 footers home??

I knew I was only going to use them for the upper 20 ft on each end
of a dipole, so I sawed them in half proving that I am smarter than
the average bear. Your mileage may vary. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2893. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:45:41 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <9evZb.88552$jk2.434410@attbi_s53>
Source record: 99715

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:%huZb.24701$Xp.104370@attbi_s54...
> Art, did you intend to compare a 'CLOUD WARMER' against an 'OVER THE
> HORIZON' class of antenna? Isn't that apples and oranges?

No it is not, both have gain.It is just that the maximum gain is at
different angles both vertically and horizontally.Extra gain in an undesired
direction is just plain useless.
There is absolutely no reason why a rotatable antenna cannot beat a standard
beverage depending where your interest are. If your interests are ambiguos
then so will be your comparison responses , something I am sure you
understand.

> BTW, who limits Beverages to received ONLY? There are some very long
> Beverages in VK land for long haul low band DX.

I will give you that but in general they are used for listening but that
was not the message I was trying to supply, Cecil supplied simple dipole
gain as stated by EZNEC so I had the computor supply a 'better' antenna but
what does it really mean. Suppliers of computor programs state if it does
not look real then it is not! So the simple statement of gain is meaningless
if it is directed at not acceptable areas which is why I pointed to
ambiguety. Now for my actual antenna which is rotatable on 160, what is the
gain at 90 degrees which you label as NVIS would be acceptable if the
computor supplied it to you ?
If given the the gain at 90 degrees would you interpret that as having zero
over the horizon at say 15 degrees ?. Zero at 30 degrees? I would say that
if an antenna is a cloud warmer it does not necessarily discriminate against
low angle signals so it is not or should not be a statement of derisement.
Frankly this business of comparing antennas is pretty stupid UNLESS one
prescribes a specific object . Cecil gave such a comparison but did not
reveal that in many directions his antenna was just plain deaf. Good for
confusion or for an ensuing augument but other than that it had no value.
I would also add that if a computor gives you a surprising figure then you
must have a second opinion or make one. To do anything else is to admit all
is known and figures of merit are known for every shape and size and are
printed in books so one can learn what is not real when shown on a monitor.
Were you not ever surprised during your years on the range at what your
equipment revealed? Did you ever compare antennas where one had more gain
than the other but proved to be actually deaf in some directions ? I am
quite sure that during your working career any statements you made with
regard to antennas was specific and to the point and devoid of vague
statements which were not pertinent to the assignment given. If it wasn't
then your career was short.
Nothing personal intended above I was just trying to make a point with Cecil

to whom I addressed the posting but I welcome your remarks.
Regards
Art
.
> aunwin wrote:
> SNIP
>
> > So I just designed an antenna with a computor program for 160 metres
based
> > around a patent write up of mine which probably will not be issued
until
> > sometime next year.
> > The beam is rotatable and is at a height of
> > 20 metres. The max gain is 7.35 dbi at 87degrees. Minimum gain at this
TOA
> > is a few db less. Compared to another antenna, and that is what you are
> > doing, the gain exceeds a Beverage at any angle over 10 degrees even if
the
> > beverage was rotatable.
> > Unlike the Beverage the antenna can be used for transmitting.
>
> SNIP
>

2894. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:53:12 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <clvZb.25831$4o.42710@attbi_s52>
Source record: 99716

Good for you Cecil. Brevity and to the point is so much better than a personal monologue about unrelated subjects that one would expect from a drunk .
Regards
Art.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:40367dc3_3@corp.newsgroups.com...
> Richard Harrison wrote:
>
> > Art, KB9MZ wrote:
> > "The dipole is a very inefficient radiator."
> >
> > I seem to remember Kraus saying 95% efficiency was not unusual as a
> > dipole efficiency.
>
> I don't think that's the efficiency that Art is talking about. Art's
> efficiency seems to be defined as the power delivered to the receiver
> divided by the power sourced by the transmitter.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2895. Re: Cardiod radiation pattern - 70 cm phased vertical dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:54:05 UTC
From: Geoff <k@l.f>
Message-ID: <MlvZb.253$Vv.73@newsfe2-gui.server.ntli.net>
Source record: 99717

Hello,

The easiest way is to mount the dipoles less than a 1/4wave from a pole or
mast. This makes the pattern a cardioid. Even with two dipoles!
Very easy to do.

"MikeN" <mnewman@clear.net.nz> wrote in message
news:7jc830hu7ci6asva13lnmd88vqe618ujss@4ax.com...
> Hi
>
> I need to develop a cardiod radiation pattern for a 70 cm local
> coverage repeater - forward gain isn't too important, but radiation
> pattern is.
>
> The repeater is located on a coastline, any radiation out to sea is
> unwanted and will interfere at times of enhanced propagation with
> another repeater using the same frequencies, which has a wide area
> coverage from an elevated (1400 ft) site, approx 70 miles away across
> a sea path.
>
> The local coverage area is mainly inland, opposite in direction to the
> distant repeater, hence we need good forward radiation and good front
> to back ratio. We also need good side radiation to cover the
> developed coastal strip.
>
> A cardiod fits our needs exactly. A yagi will have nulls in the
> coverage area, and a corner reflector won't have sufficient radiation
> sidewards.
>
> Is it difficult to get the phasing and matching correct, for say a
> pair of phased dipoles at UHF, so as too get the correct element
> currents to develop the cardiod pattern?
>
> What calculation and adjustment processes should I use.
>
> I'd be grateful for some guidance on this scenario.
>
> Thanks
>
> MikeN ZL1BNB
>

2896. Re: Putting antennas on house chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 21:58:42 UTC
From: Geoff <k@l.f>
Message-ID: <4qvZb.262$Vv.57@newsfe2-gui.server.ntli.net>
Source record: 99718

Hello,

if they do not detune each other, I would love to see the chimney after a
gust of wind!

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c0tk22$1audle$1@ID-150848.news.uni-berlin.de...
> I've no real experience of putting up antennas on the chimney of a house.
>
> Obviously, I must not overload the chimney breast.
>
> I'm thinking about putting up the following:
>
>
> ______ Discone
> / | \
> __ / || \
> A |
> __ ___|x___ 5 ele.2m yagi
> |
> B | |
> __ |x| 5 ele. marine yagi
> | |
> C |
> | |
> __ |x| 5 ele. FM yagi.
> | |
> D |
> |
> __ |
> / \ Rotator
> /__\
> |
> | ______
> | | | Chimney
> | | |
> | |
>
> I'm wondering about the spacings, A, B, C, and D.
>
> A, spacing between bottom of the discone and the boom of 2 m yagi.
>
> B, spacing between boom of 2m yagi and boom of marine band yagi.
>
> C, spacing between boom of marine band yagi and boom of FM yagi.

>
> D, spacing between boom of FM yago and top of rotator.
>
> As for the mast, I'm thinking what about 1.5" steel tube.
>
> As for rotator. No idea what model I'd need.
>
> Any thoughts? Am I trying to be too ambitious? I could leave out the
> marine yagi if I had to.
>
> Thanks.
>
> Rich.
>
>

2897. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 22:54:51 UTC
From: jder8745@aol.com
Message-ID: <20040220175451.03211.00000089@mb-m23.aol.com>
Source record: 99569

Someone sed: "I don't think
there's any structure to this sub-category, other than to require at least
one mention of Maxwell in every discussion".
=====================

I'm a Folgers man myself! Never did like Starbuck's.

73 de Jack, K9CUN

2898. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 22:58:06 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <403690FE.5506@wt.net>
Source record: 99570

Richard Harrison wrote:
>
> Art, KB9MZ wrote:
> "---the comparisons are all over the place and hard to follow."
>
> When the title reads: "Does phasing verticals work better than a
> dipole?" that could be expected to evoke confusing replies. Hams play
> antenna favorites, often when the favorites aren`t justified.

I agree. Note what Cecil posts: "A dipole at a decent height can have a
7 dB gain
over a 1/4 WL monopole. A two-element phased vertical cannot equal that
figure over average ground."

If you go by what Cecil says, you would get the impression a vertical,
or vertical array would never have a chance over the dipole. Lets look
at modeling with a clear head. The original posters dipole is at 30 ft.
Ask Cecil to run that through the program and see where that 7dbi gain
is at. Heck, I'll save all the trouble. It's at 89 degrees, or straight
up. Whats the gain at 10 degrees? -4.32 dbi. 5 degrees? -10.17dbi.
"using eznec over medium "real/high accuracy" ground"
Whatta a dx buster. :(
Lets run my 40m GP through the program. Same ground specs. Max gain is
4.38dbi at 11 degrees. At 10 degrees gain drops to 4.37dbi. No real
change. At 5 degrees, 3.41 dbi gain. I don't know about you, but when
working DX or any low angle path, I know which antenna I'll be using.
See, even modeling "proves" what I say. :) But my real world results
over a good period of time verify this. And others have also. W8JI for
one. I have no real favorite, except as applies to a certain path.
I always had BOTH a dipole and a vertical. Sure, in the day, I'd almost
always be on the dipole. Out to about 800 miles or so, it was a draw.
Could go either way. But over 1500 miles, no contest. The vertical was
king of the hill. Believe me, if the dipole was actually better, I'd be
the first to say so.
I haven't even ventured into multi elements yet.. :/
Or the belief that any small extra noise really matters, when the DX
signal increase almost always overrides it. You would only worry about
the extra noise on the vertical if you were misapplying it and trying to
work higher angle stateside stuff.

>
> I think it would be worth while to see what the most successful DXers
> actually use.

True! I think you'll find most use verticals, or vertical arrays to transmit for the most part on the low bands. Many schemes are used for receiving.

ON4UN has tried to do this in "Low-Band DXing". Many use
> separate antennas for receiving and transmitting. The goal is signal to
> noise ratio on reception. The goal is effective radiated power on the
> target for transmission.
>
> Many Beverages are listed to receive the DX signal. At 80m, there are
> Yagis, slopers, Vees, etc. to transmit. At 160m, there are quite a few
> inverted Vees and other antennas which seem to trend to vertical
> polarization.

An inv Vee is still going to be mostly horizontal on that band, unless it's really high, and the legs are very steeply sloped.

The antennas may be too large to rotate and
> omnidirectionality may be accepted without so much struggle. Multiple
> directional transmitting antennas might be a better solution if the
> resources are available. You may only need a few hundred acres.

Size may well influence many to vertical on 160m due to space constraints. But, I'm still of the opinion that there is an advantage to vertical polarization at night on any band that the primary skip takes the dark path instead of day. I don't really think this applies to day paths too much though for some reason. BUT!, I still think vertical can do very well on the high bands. With a single element, it puts more of your power where you really want it. At low angles. Only on say 20m to stateside stuff might you use the higher angles a low dipole might provide. I do usually prefer a dipole on 20m for "average" use. But I usually prefer a 5/8 GP on 10m if I can't have a yagi. MK
--
http://web.wt.net/~nm5k

2899. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 22:58:56 UTC
From: jder8745@aol.com
Message-ID: <20040220175856.03211.00000090@mb-m23.aol.com>
Source record: 99571

Howdy,

I have always heard that what we call "Ohm's Law" is actually Cavendish's Law.

But as the story goes, Cavendish didn't write a paper.

Is this BS or true?

Jack, K9CUN

2900. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 23:17:46 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <4036959A.47CA@wt.net>
Source record: 99572

Cecil Moore wrote:
>
> Mark Keith wrote:
> > Actually, I have tried it on 10m and most other bands. "I do have 80m
> > dipoles". But no, the dipole never beat the 5/8 GP.
>
> Fed with coax, and no doubt, laying on the ground.

Yep, fed with coax, but being the mismatch wasn't that large in the real world, the loss shouldn't have been overly bad. Actually, I think it was nearly resonant. or under 3:1 anyway...The antenna was at 36 ft. Hardly on the ground.
>
> > It's like when I was out camping using a ladder line fed 80m, 130 ft
> > dipole. I tried it on ten. It was pathetic due to the overly high takeoff
> > angles. I'm talking terrible.
>
> Perhaps, you had a cold solder joint (maybe on purpose so you could
> report what you are reporting?) Your results just don't make sense.

Worked fine on 80 and 40. My results make sense to me. But I'm a flat earther. Well, unless I'm high up in a jet. Then I can tell it slightly curves a bit. But when I'm on the ground, the earth does seem fairly flat. So it must be...MK

--
http://web.wt.net/~nm5k

2901. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 23:19:25 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <403695FD.62D0@wt.net>
Source record: 99573

Art Unwin KB9MZ wrote:

> Cecil, It is extremely hard to follow this thread as many comparisons
> are vague i.e. frequency, length of antenna e.t.c.
> You are not helping things when you talk of a 130 foot dipole and its
> use on ten meters. I think calling that antenna a dipole is misleading
> to say the least

In the Marine Corps, they call this a cluster#$%^...MK
--
http://web.wt.net/~nm5k

2902. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 23:42:48 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40369c67$1_3@corp.newsgroups.com>
Source record: 99574

Mark Keith wrote:
> Lets run my 40m GP through the program. Same ground specs. Max gain is
> 4.38dbi at 11 degrees. At 10 degrees gain drops to 4.37dbi.

Unfortunately, my 130 ft dipole at 50 ft. used on 10m shows 10 dBi gain
at 10 degrees. I don't know about you, but, seems to me, 10 dBi at 10
degrees beats 4.37 dBi at 10 degrees unless you live in a different
reality from me which is entirely probable.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2903. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 23:48:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40369dbc_3@corp.newsgroups.com>
Source record: 99575

Mark Keith wrote:
> Yep, fed with coax, but being the mismatch wasn't that large in the real
> world, the loss shouldn't have been overly bad.

Egads, that is the whole problem. The mismatch was terrible.

>It's like when I was out camping using a ladder line fed 80m, 130 ft
>dipole. I tried it on ten. It was pathetic due to the overly high takeoff
>angles.

Absolutely false! The TOA of a 130 ft. dipole on 10m is about 10 degrees.
MOM+physics, not your feelings, dictate that fact.

> But when I'm on the ground, the earth does seem fairly
> flat. So it must be...MK

Yep, that's what the Catholic priests told Galileo so it must be true.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2904. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-20 23:51:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40369e71_3@corp.newsgroups.com>
Source record: 99576

Mark Keith wrote:

> Art Unwin KB9MZ wrote:
>>Cecil, It is extremely hard to follow this thread as many comparisons
>>are vague i.e. frequency, length of antenna e.t.c.
>>You are not helping things when you talk of a 130 foot dipole and its
>>use on ten meters. I think calling that antenna a dipole is misleading
>>to say the least
>
> In the Marine Corps, they call this a cluster#$%^...MK

Sorry, but in Texas, two wires are the same as two (conductive) poles.
We conceive our poles as fishing poles, and go on from there. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2905. Mobile 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:07:50 UTC
From: nightowls627@aol.comnojunk
Message-ID: <20040220190750.01989.00000080@mb-m22.aol.com>
Source record: 99577

I am going to a hamfest this weekend (Frostfest in Richmond, Va.) and would like to get all the parts to assemble my mobile antenna. Okay, after reading many many threads on newsgroups and eham, I have still a couple of questions. I have a 2000 Dodge Caravan (I posted before and had many good responses!) and now my wife has said I can drill. Well, I will only be using the ic 2100 on road trips and the like. I have an ht for all other things. On road trips we use a "snail" on the luggage rack. Kind of hard to get the antenna there now. My only option is an adjustable angle mount on the hood, rear gate, or mounting the antenna to the frame under the front or rear bumper? My wife doesn't mind a 5/8 wave on the bumpers as long as it can be removed. Are there any mounts for the bumper? It is a plastic bumper and the metal frame is recessed about 6-10 inches up under the bumper. I guess a mag mount will work but just not as well as a mount that is drilled. Will the clamp mount work on the hood?

Thanks
73
Greg
ki4bbl@arrl.net

2906. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:20:08 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c168b4hre1@newshost.mot.com>
Source record: 99579

Hi Richard, TOP and internal posting...sorry folks.

I think you are learned on this subject and won't quibble about what really happens in the real world. I think you know and I claim that I know. I will, however pick a little bone in regards to the answer which I posted to an email since I also thought would help others at a similar level of understanding or confusion.

Oh geeze! here he goes...you had to set him off..
Here's my mantra and why a I am a little miffed by (but actually understand) frequent attempts to correct my explanations.
The words we use and the depth to which we go at any given point to describe things, have an effect on the ability of people to absorb the concepts. As an instructor of basics, I have worked very hard, for a long time, to understand and use effective ways to transfer an understanding of electronic principles to students at what might be considered the lower rungs of the technical ladder...the beginners...the hams also. There is what I'll call an "instructor's high" associated with the light bulb going on in a student. It's really cool.
I carefully craft my responses to the apparent level of knowledge of the questioner. I do my best to form a coherent story which progresses from simple, where a concept needed to understand more complex concepts is explained first, without adding the unnecessary complications of true, but potentially confusing facts, to the more complex goal I perceive to be the questioner's goal. Once the basic concepts sinks in AND the student is ready for the next level, usually by a response, I then proceed to build. It is the old "speak to your audience" concept.
I don't dispute that your explanations are correct. They appear very good, rather complete. I do believe however, that your most assuredly honest and well meaning attempt to be correct, completely correct, actually makes the subject more confusing to the beginner. I believe this because I have been there. In fact, I must, almost every class session, throttle myself from doing just the very same thing. Why? Because when I do, I have succeeded in causing more confusion, resulting in a mental block to learning which requires much more effort at damage control to erase the mental blockage I created with my ignorant desire to be completely correct. Please understand that I am being harsh on *myself* because I have been frustrated by this and work hard to keep it under control. As an Engineer, teaching technician students, one must keep in mind that there is a different state of mind and ability to absorb what to them, appears a very complex subject...but to my arrogant mind is really very simple. After all, piecewise parametric polynomial interpolation looked like an impossible concept, way beyond my comprehension back in 92 when I first saw reference to it. Now, it looks like the simplest thing any high school Algebra student can understand.

I'm also at a point in my life that I have seen and done so much in this field (and it all seems so simple) that I wish to return some of it to others, and I wish to do it very effectively.

Of course, now you're going to tell me that you also have been teaching for x years and your methods are equally successful...so be it. There needs to me more of us.

BTW...what is your line, Richard?

Some comments, corrections and whatever stuck my fancy about what you wrote...

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:25405-40362E97-50@storefull-3254.bay.webtv.net...
> Steve Nosko wrote:
> "Apparently, because of the way the big bang occurred, when we put a
> voltage across a resistor current flows in a manner that we discovered
> follows the equation called Ohm`s law."
>
> Big bang? Ohm wasn`t around then. He lived 1787 to 1854. Ohm discovered
> that current in an electrical resistance is proportional to voltage.

The concept I was trying to relate in a slightly 'light' manner was: The stuff that happens, happens 'cuz of what we call "physics", "physical laws" or "nature" or sump-in' like that, not because there is an equation making it happen. Resistors don't know Ohm's law and don't conduct current because of Ohm or his discoveries.

The equation we call Ohm's law is simply a model of how reality works. Like a model airplane, which helps us understand what a real airplane looks like. Ohms law, and all the other equations, help us understand what real electronics "looks like".

>
> Resistance is the type of impedance (opposition to electrical current)
> in which current is locked in step to the applied voltage.

A completely valid way to word it, but to a beginner I think the phrase "locked in step " is vague. It would be a good start, but probably needs expansion to explain what it means.

>
> The item called a resistor is the type of resistance that converts
> electrical energy to heat energy.
> Not all resistances are resistors.

I wouldn't have worded it that way, but it (resistor is the type of resistance) is a valid model to have in mind. That is, as a way to distinguish it from "a resistance which is not a resistor". This made me think of how I think of it.. and when I use the word "resistance" I think of it as as a resistor, yet an impedance has a real or "resistive" part. That word "resistance" for me conotes a "resistor" where the others conote the other concept. Interesting nomenclature, that's all.

> Some resistances don`t convert
> electrical energy directly into heat. In these non-dissipative
> resistances,

Well, here's where I'll say that I think this is truly a matter of
symantics. Your terminlolgy implies that dissipation = heat. I agree that
the most common usage it that "... is dissipated as heat...". However, this
next bit:
> ...is in-phase with current through the
> resistance, but it does not cause energy loss.

I think has a symantics problem. I'm sure you truly understand what
happens, but the words "...does not cause energy loss." isn't correct,
because the energy IS lost from the circuit. The circuit "can't tell" the
difference 'tween the resistor and any other kind of resistive component.
It just may or may not be as heat, right?
You know what happens and I know what happens, but the OP didn't, so
I was starting him down a path that wouldn't paint him into a corner of not
being able to understand the other resistive types of things later...if so
desired.

> An example of lossless
> resistance is the Zo or surge impedance of a transmission line.

Again, the power IS lost from the source, no? I think this an important
basic understanding. To the sourse, it is gone. Poof! never to be seen
again. I think it is a good model to understand and helps go further
without Maxwell complicating things. I think you can go pretty far without
Maxwell (gee, twice in one paragraph) and still have a good amount of
(correct) sixth sense about what is going on in electronics and transmission
lines.

> Zo is ... yet converts no energy to heat in the lossless line.

And my model didn't exclude this. I thought I was explicit about
that without bringing in more complexity for the OP.

> "radiation resistance". ...is hardly a loss.

Again, as far as the transmitter circuitry is concerned, it is.

The following is a well done explanation which goes further and into
more detail...with one disagreement.

> An ohm is the unit of resistance. It is defined at 0-degrees C, of a
> uniform column of mercury 106.300 cm long and weighing 14.451 grams. One
> ohm is the resistance which drops one voltt when a current of one amp is
> passed through it.
>
> Reactances are also defined by their volts to amps ratios (ohms). The
> big difference is that reactance does no work and produces no heat.
> Opposition to electrical current comes from delay required to store ard
> retrieve energy to and from fields in and around the reactances. Current
> lags the applied voltage in an inductance. At time = 0, no current flows

> into an inductance, but rises exponentially from the instant of initial
> energization. Current leads the applied voltage into a capacitance. At
> time = 0, full current flows into a capacitance but voltage across the
> capacitance is zero and rises exponentially from the instant of initial
> energization.
>
> In an a-c circuit, the current through an inductance lags the voltage by
> 90-degrees. In a a-c circuit, the current through a capacitance leads
> the voltage by 90-degrees. Phase shifts are produced by energy storage
> in reactance. There is no phase shift in a resistance. No electrical
> energy is stored in a resistor, but its matter does have a thermal
> capacity. Once its atoms are agitated by heat their inertia is evident
> in the resistance`s temperature. It takes time to cool.
>
> Steve wrote: "Things get all messed up."
>
> As old Carson Robinson sang: "Life gets tedious, Don`t it?" Steve gave
> the formulas for capacitive and inductive reactances. They have always
> seemed convenient to me. Steve says: "---we call this new kind of
> (corrupted) resistance "Impedance"."
>
> No. Impedance is the general name for opposition to electricity.

No. In the context of my writing for someone who has an unserstanding
of DC and resistance, reactance it a very confusing factor. It corrupts an
otherwise simple world. Getting into Vector Algebra and phasors is a
significant step up in mathematics for the beginner not inclined to go the
Engineering route. What I'm saying is that although the unified field
theory may very well be the absolutely correct explanation of everything in
the universe, we don't need to explain it fully in the beginning to help
someone understand Gravity's acceleration, F=MA and you can't push a rope.
Newton certainly didn't need it. For all I know, F=MA may very well be a
special case in quantum mechanics, but I don't need it to calculate
accelerations, velocities, etc

> Resistance is the specialized name for the case in which the impedance
> alone causes no delay and stores no electrical energy. All electrical
> impedance is defined by its voltage to current ratio, and is the total
> opposition (resistance and reactance) a circuit offers to the flow of
> electricity. For d-c, reactance doesn`t count. For a-c, total opposition
> consists of the vector (phasor) sum of resistance and reactance in a
> circuit. Impedance is measured in ohms and its reciprocal is called
> admittance. The symbol for impedance is Z. The symbol for admittance is
> Y.
>
> Steve also writes:
> "Poof! BUT converts it into radio frequency energy (RF) also called an
> electromagnetic field or wave."
>
> Yes. A radio wave is r-f energy which has escaped the confines of wires
> and doesn`t come back. Whenever wires in open space carry high-frequency

> current, some energy gets away as a radiated field, having a strength
> that varies inversely with the distance.
>
> Best regards, Richard Harrison, KB5WZI
>

2907. Re: Cardiod radiation pattern - 70 cm phased vertical dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:26:55 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c168nricm1@newshost.mot.com>
Source record: 99578

Two vertical (dipoles or groundplanes) spaced 1/4 wave physical apart with
3/4 (electrical) of coax between them - then feed at one dipole. I forget
which end the null is. I know it is in the Fox hunting book
http://members.aol.com/homingin/index.html
but not where to find it on the web.

Also a vertical on one side of a tower can do it also. Commonly done in
communication.

--
Steve N, K,9;d, c. i My email has no u's.

"Ray Gaschk" <rgaschk@astound.net> wrote in message
news:c11851$r93$1@news.astound.net...
> Mike,
>
> Take a look at LB Cebic's (W4RNL) Moxon square
> articles, and particularly "Building a 2-Meter Moxon"
>
> Shows directivity pattern you are looking for.
>
> ray, w6fya
> "MikeN" <mnewman@clear.net.nz> wrote in message
> news:7jc830hu7ci6asva13lnmd88vqe618ujss@4ax.com...
> > Hi
> >
> > I need to develop a cardiod radiation pattern for a 70 cm local
> > coverage repeater - forward gain isn't too important, but radiation
> > pattern is.
> >
> > The repeater is located on a coastline, any radiation out to sea is
> > unwanted and will interfere at times of enhanced propagation with
> > another repeater using the same frequencies, which has a wide area
> > coverage from an elevated (1400 ft) site, approx 70 miles away across
> > a sea path.
> >
> > The local coverage area is mainly inland, opposite in direction to the
> > distant repeater, hence we need good forward radiation and good front
> > to back ratio. We also need good side radiation to cover the
> > developed coastal strip.
> >
> > A cardiod fits our needs exactly. A yagi will have nulls in the
> > coverage area, and a corner reflector won't have sufficient radiation
> > sidewards.
> >

> > Is it difficult to get the phasing and matching correct, for say a
> > pair of phased dipoles at UHF, so as too get the correct element
> > currents to develop the cardiod pattern?
> >
> > What calculation and adjustment processes should I use.
> >
> > I'd be grateful for some guidance on this scenario.
> >
> > Thanks
> >
> > MikeN ZL1BNB
> >
>
>

2908. Re: Crazy question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:29:22 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c168seikv1@newshost.mot.com>
Source record: 99585

Scotch Bright is preferred. Steel slivers remaining in the aluminum *can*
accelerate bi-metalic corosion problems. Don't know how bad it can be in
actual practice, though.

--
Steve N, K,9;d, c. i My email has no u's.

"Mikey" <ki6pr@arrl.net> wrote in message
news:4033e3d2$1_5@newsfeed.slurp.net...
> Sure. You can clean up metal elements with fine steel wool, and re-seal
it
> with varathane (or similar materials). Connection points can be cleaned
up
> and treated with a conductive lube. If you're restoring an old antenna,
> you'll also want to think about replacing all the hardware (nuts & bolts)
> with stainless steel, if available.
>
> - Mike KI6PR
> El Rancho R.F., CA
>
> "cme" wrote
> > Can one clean the elements on a antenna, to bring it back to its former
> self
> > , as when it was new, with some steel wool or something. Oil the
> attachment
> > point so they dont corrode.
> >
> > Is there any mainenance tips one can do for an antenna.
> >
> >
>
>

2909. For Sale

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:34:06 UTC
From: Carl Domanico <vze2686b@verizon.net>
Message-ID: <2IxZb.64363$IF1.6191@nwrdny03.gnilink.net>
Source record: 99580

Motorola UHF JT-1000 Radio..... Paid $800.00

Motorola NMN6193B Premium Speaker Mic... Paid $95.00

Motorola Drop In Quick Charger, Used for Nicd Batteries (NTN7212B) Paid...$ 70.00

Motorola Heavy Duty Leather, Swival, Belt Case...Paid..$ 45.00

Program Key

W & W Battery Eliminator...Allows Plug-in to cigerette lighter...New...Paid..$ 55.00 (WCE-060M5-7144A)

Rubber Contack cover, For side of radio, when no speaker mic is used

Polaris PA-2 Programming Adapter (Ribb Box) w/ Built in Nicd Battery, can be charged and used in the field , if necessary....Paid..$ 159.95

Polaris Radio Interface Cable, used for HT-1000, MT-2000, MTX838, MTX8000, MTX9000, and JEDI- Series....Paid...$ 135.95

Itech iq-pac, Professional Commercial Duty , Charger / Analyzer / Conditioner.....Paid $ 199.95

JABRO 2100 ma 7.5 vdc NiMi Batteries...(2) Paid $ 45.00 ea....Total $ 90.00

Battery Belt Clips...Paid $ 29.00

Bondwell SuperSlim B-310 High Speed 286 Laptop / w AC Power Supply... Paid Used $ 100.00

Laptop is complete w / RSS Software for JT-1000 and Jedi-Series.....Also supplied Hacked RSS Software..To allow JT-1000 To be field Programmed without the Programming Key....Speaker Mic can be left in place when Programming The radio...(Government Mod)

Note : All Equipment Purchased New...Except Laptop...Mint Condition...Complete w /Original Manuals

Included w/ Package Complete Portfolio w / Many Types of Tricks and things that can be done to Radio

Make Offer......For complete package

2910. Thanks

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:34:37 UTC
From: GJS917 <gjs917@yahoo.com>
Message-ID: <xIxZb.66576$KV5.38278@nwrdny01.gnilink.net>
Source record: 99581

I just wanted to say thank you to everyone for their advice.

Gene

2911. Re: folding antenna, can it be refolded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:36:34 UTC
From: Sparks <sparksw4eas@mindspring.com>
Message-ID: <4036D240.1C6A@mindspring.com>
Source record: 99582

You can "Normaly" refold a R/S antenna by VERY CAREFULY releasing the locking tab's. I have used a "Test" antenna for about 20 years this way! Regards, Sparks

2912. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:37:23 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <3LxZb.91594$uV3.553879@attbi_s51>
Source record: 99583

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40367298_3@corp.newsgroups.com...
> aunwin wrote:
> > So Cecil, that is what I mean about supplying relevant data ...
>
> Well, in a nutshell, I route my dipole such that the four 11 dBi lobes on
> 10m are aimed at the English speaking land masses of the world. That works
> like a charm (for me). If I ever have trouble reading someone, I switch
over

Cecil now you have decided to add to your original statement regarding
comparisons
and whoa you switch over to other means of communication when this antenna
lets you down so badly , so having a back up like a phone makes the antenna
worthwhile as a comparison with other antennas and you are admitting your
previous info was misleading at best.
> to my rotatable dipole with only a 9 dBi gain and TOA of 10 deg to see if
> the QSO can be improved. I seriously doubt that any vertical monopole can
> beat my rotatable dipole with 9dBi gain and TOA of 10 degrees. I also
> doubt that any two element vertical phased array can beat 9 dBi at 10 deg
Now you are at it again, you didn't mention anything about the length of
your "simple dipole and yet you doubt that any two element (why two
elements) can beat 9 dbi at 10 degrees. You are suddenly believing your own
misleading words, since you play games with the lengths in a simple diameter
others can play the same silly game, two vertical elements surely can beat
your antenna if they follow your rules,an element or dipole description in
no way places a restriction on length. So your response is not just a
nutshell as you stated, you are just playing nuts. But you are not alone
inthis comparison game,somebody stated he read somewhere that the dipole was
such and such efficient which is absolutely silly if that is all you
remember since you have to know efficiency over what! Surely he could have
introduced some thoughts of his own like compared to a broom stick but no,
suffice enough that he read that little bit in a book!
Again nothing personal but I agree with Mark these discussions are not
worthy of you when ambiguety is deliberately inserted purely to win a debate
rather than advance the cause of science. Cecil you are smart enough to
discuss most things on its merits, why stoop to the level of some who prefer
to supply monologues onEHantennas
or something else to prove theycan fill a page with garbage and trick others
to read it ?
Best regards and I do mean it as this is not meant to be a personal attack
Art

> TOA.
> --

> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2913. Re: Not so obvious

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:50:05 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <1XxZb.89988$jk2.435988@attbi_s53>
Source record: 99584

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c044cd$14h$1@sparta.btinternet.com...
> "Yuri Blanarovich" wrote -
> >
> > Efiiciency of the loaded radiator is roughly proportional to the area
sniped)
> ==========
>
form
> distribution. Nothing wrong with that of course. Especially if everybody
> makes the SAME assumption.

Reg I really like the above sentence of yours, do you have an English
background
by any chance?

When everybody agrees with an assumption it usually means that the
assumption was
made by a lemming and all the others are followers, knowing full well every
body
cannot be fired, only those who dare to stand alone.
Cheers and beers
Art

> ----
> Reg, G4FGQ
>
>

2914. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 00:57:01 UTC
From: tdonaly@aol.com
Message-ID: <20040220195701.16190.00000076@mb-m11.aol.com>
Source record: 99586

Cecil wrote,
>
>> But when I'm on the ground, the earth does seem fairly
>> flat. So it must be...MK
>
>Yep, that's what the Catholic priests told Galileo so it must be true.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Careful, Cecil. The last time I wrote something like that I got an
irate email from a fellow who accused me of Catholic-bashing.
Actually, those Catholic priests knew the Earth is round, Aristotle
told them so. They might have taken an assertion that the Earth
wasn't the center of the universe with a grain of salt, though.
73,
Tom Donaly KA6RUH

2915. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 01:04:21 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <p8yZb.27264$4o.42433@attbi_s52>
Source record: 99587

Steve, I also tried to give back and taught at a junior college for a couple of years but I found out that talking and communicating were two different things. If what you do
succeeds in comunicating then you are doing good where others have failed by resorting to just talking or handing out books. By you "communicating" you encourage independent thought which is so much better than relying just on memory and underlined quotes.
If you are winning then keep at it and disregard comments that are without depth.
Cheers
Art

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message news:c168b4hre1@newshost.mot.com...
> Hi Richard, TOP and internal posting...sorry folks.
>
> I think you are learned on this subject and won't quibble about what
> really happens in the real world. I think you know and I claim that I know.
> I will, however pick a little bone in regards to the answer which I
> posted to an email since I also thought would help others at a similar level
> of understanding or confusion.
>
> Oh geeze! here he goes...you had to set him off..
> Here's my mantra and why a I am a little miffed by (but actually understand)
> frequent attempts to correct my explanations.
> The words we use and the depth to which we go at any given point to
> describe things, have an effect on the ability of people to absorb the
> concepts. As an instructor of basics, I have worked very hard, for a long
> time, to understand and use effective ways to transfer an understanding of
> electronic principles to students at what might be considered the lower
> rungs of the technical ladder...the beginners...the hams also. There is
> what I'll call an "instructor's high" associated with the light bulb going
> on in a student. It's really cool.
> I carefully craft my responses to the apparent level of knowledge of the
> questioner. I do my best to form a coherent story which progresses from
> simple, where a concept needed to understand more complex concepts is
> explained first, without adding the unnecessary complications of true, but
> potentially confusing facts, to the more complex goal I perceive to be the
> questioner's goal. Once the basic concepts sinks in AND the student is
> ready for the next level, usually by a response, I then proceed to build.

It
> is the old "speak to your audience" concept.
> I don't dispute that your explanations are correct. They appear very
> good, rather complete. I do believe however, that your most assuredly
> honest and well meaning attempt to be correct, completely correct,
actually
> makes the subject more confusing to the beginner. I believe this because
I
> have been there. In fact, I must, almost every class session, throttle
> myself from doing just the very same thing. Why? Because when I do, I
have
> succeeded in causing more confusion, resulting in a mental block to
learning
> which requires much more effort at damage control to erase the mental
> blockage I created with my ignorant desire to be completely correct.
Please
> understand that I am being harsh on *myself* because I have been
frustrated
> by this and work hard to keep it under control. As an Engineer, teaching
> technician students, one must keep in mind that there is a different state
> of mind and ability to absorb what to them, appears a very complex
> subject...but to my arrogant mind is really very simple. After all,
> piecewise parametric polynomial interpolation looked like an impossible
> concept, way beyond my comprehension back in 92 when I first saw reference
> to it. Now, it looks like the simplest thing any high school Algebra
> student can understand.
>
> I'm also at a point in my life that I have seen and done so much
in
> this field (and it all seems so simple) that I wish to return some of it
to
> others, and I wish to do it very effectively.
>
> Of course, now you're going to tell me that you also have been teaching
for
> x years and your methods are equally successful...so be it. There needs
to
> me more of us.
>
> BTW...what is your line, Richard?
>
> Some comments, corrections and whatever stuck my fancy about what you
> wrote...
>
>
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:25405-40362E97-50@storefull-3254.bay.webtv.net...
> > Steve Nosko wrote:
> > "Apparently, because of the way the big bang occurred, when we put a
> > voltage across a resistor current flows in a manner that we discovered

> > follows the equation called Ohm`s law."
> >
> > Big bang? Ohm wasn`t around then. He lived 1787 to 1854. Ohm discovered
> > that current in an electrical resistance is proportional to voltage.
>
> The concept I was trying to relate in a slightly 'light' manner was:
> The stuff that happens, happens 'cuz of what we call "physics",
> "physical laws" or "nature" or sump-in' like that, not because there is an
> equation making it happen. Resistors don't know Ohm's law and don't
conduct
> current because of Ohm or his discoveries.
>
> The equation we call Ohm's law is simply a model of how reality works.
> Like a model airplane, which helps us understand what a real airplane
looks
> like. Ohms law, and all the other equations, help us understand what real
> electronics "looks like".
>
> >
> > Resistance is the type of impedance (opposition to electrical current)
> > in which current is locked in step to the applied voltage.
>
> A completely valid way to word it, but to a beginner I think the
phrase
> "locked in step " is vague. It would be a good start, but probably needs
> expansion to explain what it means.
>
>
> >
> > The item called a resistor is the type of resistance that converts
> > electrical energy to heat energy.
> > Not all resistances are resistors.
>
> I wouldn't have worded it that way, but it (resistor is the type
of
> resistance) is a valid model to have in mind. That is, as a way to
> distinguish it from "a resistance which is not a resistor". This made me
> think of how I think of it.. and when I use the word "resistance" I think
of
> it as as a resistor, yet an impedance has a real or "resistive" part.
That
> word "resistance" for me conotes a "resistor" where the others conote the
> other concept. Interesting nomenclature, that's all.
>
> > Some resistances don`t convert
> > electrical energy directly into heat. In these non-dissipative
> > resistances,
>
> Well, here's where I'll say that I think this is truly a matter of
> symantics. Your terminlolgy implies that dissipation = heat. I agree

that
> the most common usage it that "... is dissipated as heat...". However,
this
> next bit:
> > ...is in-phase with current through the
> > resistance, but it does not cause energy loss.
>
> I think has a symantics problem. I'm sure you truly understand what
> happens, but the words "...does not cause energy loss." isn't correct,
> because the energy IS lost from the circuit. The circuit "can't tell" the
> difference 'tween the resistor and any other kind of resistive component.
> It just may or may not be as heat, right?
> You know what happens and I know what happens, but the OP didn't,
so
> I was starting him down a path that wouldn't paint him into a corner of
not
> being able to understand the other resistive types of things later...if so
> desired.
>
>
> > An example of lossless
> > resistance is the Zo or surge impedance of a transmission line.
>
> Again, the power IS lost from the source, no? I think this an
important
> basic understanding. To the sourse, it is gone. Poof! never to be seen
> again. I think it is a good model to understand and helps go further
> without Maxwell complicating things. I think you can go pretty far
without
> Maxwell (gee, twice in one paragraph) and still have a good amount of
> (correct) sixth sense about what is going on in electronics and
transmission
> lines.
>
>
> > Zo is ... yet converts no energy to heat in the lossless line.
>
> And my model didn't exclude this. I thought I was explicit about
> that without bringing in more complexity for the OP.
>
>
> > "radiation resistance". ...is hardly a loss.
>
> Again, as far as the transmitter circuitry is concerned, it is.
>
>
> The following is a well done explanation which goes further and
into
> more detail...with one disagreement.
>

> > An ohm is the unit of resistance. It is defined at 0-degrees C, of a
> > uniform column of mercury 106.300 cm long and weighing 14.451 grams. One
> > ohm is the resistance which drops one voltt when a current of one amp is
> > passed through it.
> >
> > Reactances are also defined by their volts to amps ratios (ohms). The
> > big difference is that reactance does no work and produces no heat.
> > Opposition to electrical current comes from delay required to store ard
> > retrieve energy to and from fields in and around the reactances. Current
> > lags the applied voltage in an inductance. At time = 0, no current flows
> > into an inductance, but rises exponentially from the instant of initial
> > energization. Current leads the applied voltage into a capacitance. At
> > time = 0, full current flows into a capacitance but voltage across the
> > capacitance is zero and rises exponentially from the instant of initial
> > energization.
> >
> > In an a-c circuit, the current through an inductance lags the voltage by
> > 90-degrees. In a a-c circuit, the current through a capacitance leads
> > the voltage by 90-degrees. Phase shifts are produced by energy storage
> > in reactance. There is no phase shift in a resistance. No electrical
> > energy is stored in a resistor, but its matter does have a thermal
> > capacity. Once its atoms are agitated by heat their inertia is evident
> > in the resistance`s temperature. It takes time to cool.
> >
> > Steve wrote: "Things get all messed up."
> >
> > As old Carson Robinson sang: "Life gets tedious, Don`t it?" Steve gave
> > the formulas for capacitive and inductive reactances. They have always
> > seemed convenient to me. Steve says: "---we call this new kind of
> > (corrupted) resistance "Impedance"."
> >
> > No. Impedance is the general name for opposition to electricity.
>
> No. In the context of my writing for someone who has an unserstanding
> of DC and resistance, reactance it a very confusing factor. It corrupts
an
> otherwise simple world. Getting into Vector Algebra and phasors is a
> significant step up in mathematics for the beginner not inclined to go the
> Engineering route. What I'm saying is that although the unified field
> theory may very well be the absolutely correct explanation of everything
in
> the universe, we don't need to explain it fully in the beginning to help
> someone understand Gravity's acceleration, F=MA and you can't push a rope.
> Newton certainly didn't need it. For all I know, F=MA may very well be a
> special case in quantum mechanics, but I don't need it to calculate
> accelerations, velocities, etc
>
>
> > Resistance is the specialized name for the case in which the impedance
> > alone causes no delay and stores no electrical energy. All electrical

> > impedance is defined by its voltage to current ratio, and is the total
> > opposition (resistance and reactance) a circuit offers to the flow of
> > electricity. For d-c, reactance doesn`t count. For a-c, total opposition
> > consists of the vector (phasor) sum of resistance and reactance in a
> > circuit. Impedance is measured in ohms and its reciprocal is called
> > admittance. The symbol for impedance is Z. The symbol for admittance is
> > Y.
> >
> > Steve also writes:
> > "Poof! BUT converts it into radio frequency energy (RF) also called an
> > electromagnetic field or wave."
> >
> > Yes. A radio wave is r-f energy which has escaped the confines of wires
> > and doesn`t come back. Whenever wires in open space carry high-frequency
> > current, some energy gets away as a radiated field, having a strength
> > that varies inversely with the distance.
> >
> > Best regards, Richard Harrison, KB5WZI
> >
>
>

2916. Re: Mobile 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 01:05:52 UTC
From: Phil <phil.bradway@verizon.net>
Message-ID: <Q9yZb.66631$KV5.37102@nwrdny01.gnilink.net>
Source record: 99588

Try the Comet 400 series mount. It's a bit pricy but is strong and very adjustable. I use a pair of them on my van's hatch and can play mix and match. With the 3/8 x 24 mount, you can use hamsticks as well as vhf antennas. Time to sneak a '706 into the van? When you don't want antennas just cover the mounts with tubing caps (make it a tight fit) and you are all set until the next trip.

Phil, KB2HQ

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message news:20040220190750.01989.00000080@mb-m22.aol.com...
> I am going to a hamfest this weekend (Frostfest in Richmond, Va.) and would
> like to get all the parts to assemble my mobile antenna. Okay, after reading
> many many threads on newsgroups and eham, I have still a couple of questions. I
> have a 2000 Dodge Caravan (I posted before and had many good responses!) and
> now my wife has said I can drill. Well, I will only be using the ic 2100 on
> road trips and the like. I have an ht for all other things. On road trips we
> use a "snail" on the luggage rack. Kind of hard to get the antenna there now.
> My only option is an adjustable angle mount on the hood, rear gate, or mounting
> the antenna to the frame under the front or rear bumper? My wife doesn't mind
> a 5/8 wave on the bumpers as long as it can be removed. Are there any mounts
> for the bumper? It is a plastic bumper and the metal frame is recessed about
> 6-10 inches up under the bumper. I guess a mag mount will work but just not as
> well as a mount that is drilled. Will the clamp mount work on the hood?
>
> Thanks
> 73
> Greg
> ki4bbl@arrl.net

2917. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 02:09:02 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <4036BDBE.2D34@wt.net>
Source record: 99589

Cecil Moore wrote:
>
> Mark Keith wrote:
> > Yep, fed with coax, but being the mismatch wasn't that large in the real
> > world, the loss shouldn't have been overly bad.
>
> Egads, that is the whole problem. The mismatch was terrible.

No, it wasn't terrible. Not by a long shot. But I'm sure height, surroundings, etc, etc influenced this outcome. On paper, yes, it *should* have been bad. This sure wasn't the problem in the next example.
>
> >It's like when I was out camping using a ladder line fed 80m, 130 ft
> >dipole. I tried it on ten. It was pathetic due to the overly high takeoff
> >angles.
>
> Absolutely false! The TOA of a 130 ft. dipole on 10m is about 10 degrees.
> MOM+physics, not your feelings, dictate that fact.

My feelings had nothing to do with it. My friend, who was the one that wanted to get on 10m in the first place, called people until he was blue in the face. Not a single one answered him. It was like all our signal was shooting off into space overhead. Which is what was happening for some reason. It wasn't excess tuner loss, because I always use the bare min inductance needed to tune. It wasn't the feedline. It was overly high angles of radiation. Probably because the antenna was fairly low. The TOA of a 130 ft dipole will depend on the height above ground. You state gain numbers, yet you don't ask how high the dipole I used was. It's the all important "missing link". The dipole we used was probably 15-20 ft off the ground. Model that on 10m at 20 ft and see how it looks. Probably even worse at 15 ft. Looking at the elevation plot, the angle of max gain is 24 degrees at 0 degrees azimuth angle, and 28 degrees at 90 degrees angle. I show negative gain "dbi" at all angles below 10 degrees.

Compare this with a lowly 10m 1/4 wave GP at 8 ft off the ground. This leaves the sloping radials at 2.5 ft off the ground. Max gain is at 13 degrees. You don't see negative gain until 4 degrees or less. It will beat your gain-daddy dipole in most all directions on long low angle paths or ground/space wave I suspect. I know my mobile antenna trounced the one we used. MK

--
http://web.wt.net/~nm5k

2918. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 02:12:24 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <4036BE88.730C@wt.net>
Source record: 99590

Cecil Moore wrote:
>
> Mark Keith wrote:
> > Lets run my 40m GP through the program. Same ground specs. Max gain is
> > 4.38dbi at 11 degrees. At 10 degrees gain drops to 4.37dbi.
>
> Unfortunately, my 130 ft dipole at 50 ft. used on 10m shows 10 dBi gain
> at 10 degrees. I don't know about you, but, seems to me, 10 dBi at 10
> degrees beats 4.37 dBi at 10 degrees unless you live in a different
> reality from me which is entirely probable.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Thats Cecil alright. I know it's not a sears imposter. Use his 10m specs
to compare to my 40m specs...Totally valid comparison... Not...MK

--
http://web.wt.net/~nm5k

2919. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 02:13:54 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <4036BEE2.65EA@wt.net>
Source record: 99591

```
Cecil Moore wrote:
>
> Mark Keith wrote:
>
> > Art Unwin KB9MZ wrote:
> >>Cecil, It is extremely hard to follow this thread as many comparisons
> >>are vague i.e. frequency, length of antenna e.t.c.
> >>You are not helping things when you talk of a 130 foot dipole and its
> >>use on ten meters. I think calling that antenna a dipole is misleading
> >>to say the least
> >
> > In the Marine Corps, they call this a cluster#$%^...MK
>
> Sorry, but in Texas, two wires are the same as two (conductive) poles.
> We conceive our poles as fishing poles, and go on from there. :-)

Actually, it's not calling it a dipole that bothers me...:/ MK
--
http://web.wt.net/~nm5k
```

2920. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 02:30:19 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <_ozZb.356634$I06.3765208@attbi_s01>
Source record: 99592

Guys, you're off on a tangent!

I believe Efficiency is the ratio of power radiated to power input.

If a dipole is 95% efficient it radiates 95 out of 100 watts.

If a Yagi is 95% efficient it radiates 95 out of 100 watts.

If a Quad is 95% efficient it radiates 95 out of 100 watts.

If a vertical is 95% efficient it radiates 95 out of 100 watts.

If a Log Periodic is 95% efficient it radiates 95 out of 100 watts.

If a 1/10 wavelength antenna made of unobtainium is 95% efficient it
radiates 95 out of 100 watts.

Don't confuse Gain, Directivity and Efficiency in the discussion.

Deacon Dave

Richard Harrison wrote:
> Art, KB9MZ wrote:
>

SNIP
>
> In any case, "efficient" is only as compared with similar devices.

SNIP: Wrong!! See above

> Recall that dBd is the norm as an isotropic antenna is only a
> theoretical creature. Catalogs are filled with antenna characteristics
> as compared with a 1/2-wave dipole in free space.

SNIP: The comparison is generally Gain as dBd, dBi, or dBu
[unobtainium]. Not Efficiency!!!

It is the standard of
> comparison. It could hardly be correctly called inefficient.
>
> Best regards, Richard Harrison, KB5WZI
>

2921. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 02:34:12 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <EszZb.364862$xy6.1917464@attbi_s02>
Source record: 99593

Cecil, RE: defining efficiency as from transmitter to receiver. Isn't the proper term 'Path Loss' and it's a variable due to propagation variations. So are we comparing my wet noodle to your wet noodle and we wiggle it in the middle.

Conclusion: It is not valid to define efficiency based on unknowable and uncontrollable variables..

Deacon Dave

Cecil Moore wrote:

> Richard Harrison wrote:
>
>> Art, KB9MZ wrote:
>> "The dipole is a very inefficient radiator."
>>
>> I seem to remember Kraus saying 95% efficiency was not unusual as a
>> dipole efficiency.
>
>
> I don't think that's the efficiency that Art is talking about. Art's
> efficiency seems to be defined as the power delivered to the receiver
> divided by the power sourced by the transmitter.

2922. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 02:35:13 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <BtzZb.364869$xy6.1917362@attbi_s02>
Source record: 99594

Probably true!

After all Murphy's Law was first postulated by Smith!!

DD

JDer8745 wrote:

> Howdy,
>
> I have always heard that what we call "Ohm's Law" is actually Cavendish's Law.
>
> But as the story goes, Cavendish didn't write a paper.
>
> Is this BS or true?
>
> Jack, K9CUN

2923. Re: folding antenna, can it be refolded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 03:02:17 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <vfid30p3fal8or2tj7lm9fromv8ean8fim@4ax.com>
Source record: 99595

On Sat, 21 Feb 2004 00:36:34 GMT, Sparks <sparksw4eas@mindspring.com>
wrote:

>You can "Normaly" refold a R/S antenna by VERY CAREFULY releasing the
>locking tab's. I have used a "Test" antenna for about 20 years this
>way! Regards, Sparks

The only caveat being if the locking devices are plastic. They can be
reused but you must be much more careful than with metal. Voice of
experience 8-}
Howard

2924. Re: balloon antenna website???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 03:11:53 UTC
From: spam@spam.com
Message-ID: <4036cc66.1613562@news.east.cox.net>
Source record: 99596

On Tue, 10 Feb 2004 18:55:41 GMT, lorentzson@lycos.com (lorentzson)
wrote:

>I was just wondering if there is a balloon antennae web site, or
>'group'
>??? Have a few ideas ,,, but they come with some questions. thaks
>cl 73

--

http://www.hard-core-dx.com/nordicdx/antenna/special/baloon.html

Mark
Mark

2925. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 03:32:00 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <103dk656ju73n42@corp.supernews.com>
Source record: 99597

I can not for the life of me understand why some of you put responses at the bottom and make one have to scan way down. Leaving that aside, this is what I did:

I correlated which stations were, and were not, on the air at the same time as the spurious signal. Then I was able to use the frequency of the intended frequency to track the offending station. Our DF capabilities were only good enough to give a sector.
73 Mac N8TT
--
J. Mc Laughlin - Michigan USA

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message news:403244ed_3@news1.prserv.net...
> Ed:
>
> I think Steve would be interested in hearing a methodology for DFing a
> non-stationary signal, as would I. I have tried to track one of these spurs
> with a receiver while simultaneously attempting to get a bearing, and gave
> up. The Doppler DF systems need it in the passband and frequency stable for
> at least one "revolution" of the virtual antenna, which doesn't happen, so
> let's hear what works.
>
> --
> Crazy George
> Remove N O and S P A M imbedded in return address
>
>

2926. lmr-100 and lmr-195 difference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 04:00:26 UTC
From: anon@anon.com
Message-ID: <il2dnY7nTP5HSqvd4p2dnA@comcast.com>
Source record: 99598

Hey, I'm kinda new at this and still trying to figure things out. Can someone tell me the difference between lmr-100 and lmr-195 wires and if they can be used interchangebly?

-Thanks

2927. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 04:00:43 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <LJAZb.370893$na.565317@attbi_s04>
Source record: 99599

David
I think you can help me out on this efficiency malarkey. A dipole receives all signals within the dipoles range so its receive capabilities are well beyond
the frequency span of choice
I would venture to say that when discussing efficiency we should place bandwidth of choice received divided by the total bandwidth that the dipole actually receives and then multiply by 100. To say a dipole is 90 % efficient when some parts of a dipole supply radiation that is many times its other parts of equal lengths supply demands further explanation. Maximum radiation can only come about when the current flow is a maximum regardless of current input and is a constant per unit length and that description does not match a dipole which always require added insertion losses for equipment to overcome its inefficiences. If the dipole exceeds 90% efficiency then why waste effort and energy on interface devices between the antenna and the transformation to say.... audio?
Efficiency should always be aimed at the energy needs required over the total energy
that has to be supplied to meet required needs. If a truck carries a grain of desired gold buried in a ton of junk would you call the mining operation 100% efficient by ignoring search costs of finding the grain of gold and the removal costs for the junk? I believe the above verifies my initial statement that a dipole can be seen as inefficient. As an engineer I cannot agree
with power in versus power out (radiation) type statements as energy cannot be created or destroyed. Energy supplied by a lump of coal does not lose any energy in its change of state but as far as efficiency is concerned I do not count the energy that escaped in smoke as beneficial
and thus quantified as a positive with respect to efficiency
Regards
Art

"Dave Shrader" <david.shrader@comcast.net> wrote in message news:_ozZb.356634$I06.3765208@attbi_s01...
> Guys, you're off on a tangent!
>
> I believe Efficiency is the ratio of power radiated to power input.
>
> If a dipole is 95% efficient it radiates 95 out of 100 watts.
>
> If a Yagi is 95% efficient it radiates 95 out of 100 watts.
>
> If a Quad is 95% efficient it radiates 95 out of 100 watts.
>

> If a vertical is 95% efficient it radiates 95 out of 100 watts.
>
> If a Log Periodic is 95% efficient it radiates 95 out of 100 watts.
>
> If a 1/10 wavelength antenna made of unobtainium is 95% efficient it
> radiates 95 out of 100 watts.
>
> Don't confuse Gain, Directivity and Efficiency in the discussion.
>
> Deacon Dave
>
> Richard Harrison wrote:
> > Art, KB9MZ wrote:
> >
>
> SNIP
> >
> > In any case, "efficient" is only as compared with similar devices.
>
> SNIP: Wrong!! See above
>
> > Recall that dBd is the norm as an isotropic antenna is only a
> > theoretical creature. Catalogs are filled with antenna characteristics
> > as compared with a 1/2-wave dipole in free space.
>
> SNIP: The comparison is generally Gain as dBd, dBi, or dBu
> [unobtainium]. Not Efficiency!!!
>
> It is the standard of
> > comparison. It could hardly be correctly called inefficient.
> >
> > Best regards, Richard Harrison, KB5WZI
> >
>

2928. Re: lmr-100 and lmr-195 difference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 04:11:50 UTC
From: dplatt@radagast.org
Message-ID: <103dmk6d6u021f1@corp.supernews.com>
Source record: 99600

>Hey, I'm kinda new at this and still trying to figure things out. Can
>someone tell me the
>difference between lmr-100 and lmr-195 wires and if they can be used
>interchangebly?

Details are at http://www.timesmicrowave.com/telecom/pdf/LMRGuide.pdf

Briefly: LMR-100 cable is just about half the diameter of LMR-195,
and has roughly twice the signal loss of LMR-195 for any given length
of cable. They're both 50-ohm cables. They'd need different
connectors. The LMT-100 is probably more flexible.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2929. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 04:44:30 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4036E22E.2EB781A2@cwis.net>
Source record: 99601

Typical 'Art Unwin'. Good word count. Zero meaning.
'Doc

2930. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 04:56:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4036e5de_6@corp.newsgroups.com>
Source record: 99602

aunwin wrote:
> Cecil you are smart enough to discuss most things on its merits, ...

Well, in a nutshell, Art, a vertical has to overcome an s7 noise
level at my QTH to hear anything. The dipole only has to overcome
an s4 noise level.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2931. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 05:01:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4036e70f$1_6@corp.newsgroups.com>
Source record: 99603

Mark Keith wrote:
> The dipole we used was probably 15-20 ft off the ground.

If you had buried it, you could report even worse performance. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2932. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 05:07:13 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4036e874_6@corp.newsgroups.com>
Source record: 99604

Mark Keith wrote:
> Thats Cecil alright. I know it's not a sears imposter. Use his 10m specs
> to compare to my 40m specs...Totally valid comparison... Not...MK

Sorry, I'm suffering from macular degeneration and missed the "40m"
part. So how would you overcome an s7 vertical noise level on 40m
at my QTH?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2933. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 05:11:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4036e978$1_6@corp.newsgroups.com>
Source record: 99605

J. McLaughlin wrote:
> I can not for the life of me understand why some of you put responses at
> the bottom and make one have to scan way down.

Because anything else is a malicious violation of netnews guidelines?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2934. Re: Can antyone recomend a 2m ANT for parking garage?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 05:29:59 UTC
From: "Bruce D. Meyer" <noforhumanconsumption@spambites.wow>
Message-ID: <r1CZb.21373$eL2.2158995@twister.southeast.rr.com>
Source record: 99606

That is very cool. I have been reading about DDRR since the original post.
I still need to look for Excalibur.
Bruce
"Jim" <NN7K@Reno.Rmci.Net> wrote in message
news:10372sppitcn649@corp.supernews.com...
> Had forgot about the DDRR -- After further checking , the geometry of it,
> and the Excalibur, they are really the same antennas, just that the DDRR
is
> formed into a circle, while the Excalibur is a straight line
> The Excalibur looks like : __X_____________________
> /__X_____________________
> , with the middle open, 1/4 wavelength long
>
> and as stated,
>
> "X's" would be the feedpoint !
> is a "slot" antenna . These are related to aircraft antennas, where , a
> slot is cut into the frame, and then fed with R.F. You don't see it, as
it
> is covered with fabric, plastic, or some other non-conductive media !
> As a further aside, is used , in bombers, extensively, and have arrays of
> these , stacked in phase!!
> reason is if one, or 2 shot out, the antenna will still work, literally
> until the plane is destroyed!
> As info, Jim NN7K
>
>
>
> "Phil" <phil.bradway@verizon.net> wrote in message
> news:iBnYb.52639$IF1.46284@nwrdny03.gnilink.net...
> > You might consider a DDRR antenna. See
> > http://www.antennex.com/preview/2mddrr.htm. They are available
> commercially,
> > too.
> >
> > Phil, KB2HQ
> >
> > "Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
> > news:9nvu20h9cqt0rjt6qvvi3mehsdf6hrsv8k@4ax.com...
> > > On Sun, 15 Feb 2004 02:30:24 GMT, "Bruce D. Meyer" <bdmeyer44@msn.com>
> > > wrote:
> > >
> > > >I park in a parking garage at work, so my 2 meter anetnnae won't fit
on

> > the
> > > >car (P.T. Cruiser) while in the garage. Removing it, just before
> entering
> > > >the garage is not an option. Does anyone have a recomendation on an
> > > >alternate 2 meter antennae?
> > > >
> > > >Bruce Meyer
> > > >www.kg4tac.net
> >
> >
>
>

2935. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 05:43:53 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <teCZb.28951$4o.44930@attbi_s52>
Source record: 99607

Ofcourse it is meaningless to you as you are lacking in independent thought.
Because you are mentally disabled
you should not condemn independant thoughts of others"'Doc"
I am still amazed that you think that by referring to yourself as a Doctor
your statements then carry an aura of authenticity
when in actual fact it shows your lack of knowledge

w5lz@cwis.net> wrote in message news:4036E22E.2EB781A2@cwis.net...
> Typical 'Art Unwin'. Good word count. Zero meaning.
> 'Doc

2936. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 06:09:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4036f6f2_8@corp.newsgroups.com>
Source record: 99608

Jim Kelley wrote:
>
> Cecil Moore wrote:
>
>>Jim Kelley wrote:
>>>You do understand that a standing wave pattern is NOT a plot of
>>>instantaneous voltages or currents, right?
>>
>>It is whatever you define it to be, Jim.
>
> If that's what you think, then the answer is you don't know what a
> standing wave pattern is, and there really is nothing further I can
> discuss with you on the subject.

I know what a standing wave pattern is, Jim, and it is nothing that
can be put on a sheet of paper. It is a dynamically changing pattern.
Anything on paper is just a freeze-frame snapshot. I am surprised that
you don't know that.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

2937. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 06:41:23 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4036FD93.6D0C3E1C@cwis.net>
Source record: 99609

Art,
Pssst! As I've explained to you at least six times before,
"Doc" is a nick name. It has nothing at all to do with any
degree, or profession. I'm sorry you can't understand that.
I have never referred to my self as a doctor of anything. You
have referred to me as 'Doctor' several times, and each time
I've tried to correct that misimpression. Add this time to that
list.
My thoughts are fairly conventional, but there are a few
independent ones that sneak in every once in a while. All in
all,
I'm boringly average. I'm comfortable with that, not sure I'd
even want to change it, too lazy I think.
I'm also fairly experienced in recognizing B.S. when I hear
it (used to be a government employee, you know).
'Doc
(Not to be confused with 'Doctor')

2938. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 13:17:24 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <ETIZb.30909$4o.45888@attbi_s52>
Source record: 99610

Art, It's Saturday morning here and I'm just reading my email before my
wife and I run away from home to visit the Grandkids and go out to eat
for the DAY.

I am a minister and will be busy most of Sunday. I'll try to respond
late Sunday or Monday morning.

Deacon Dave

aunwin wrote:
> David
> I think you can help me out on this efficiency malarkey. A dipole receives
> all signals within the dipoles range so its receive capabilities are well
> beyond
> the frequency span of choice
> I would venture to say that when discussing efficiency we should place
> bandwidth of choice received divided by the total bandwidth that the dipole
> actually receives and then multiply by 100. To say a dipole is 90 %
> efficient when some parts of a dipole supply radiation that is many times
> its other parts of equal lengths supply demands further explanation. Maximum
> radiation can only come about when the current flow is a maximum regardless
> of current input and is a constant per unit length and that description does
> not match a dipole which always require added insertion losses for equipment
> to overcome its inefficiences. If the dipole exceeds 90% efficiency then why
> waste effort and energy on interface devices between the antenna and the
> transformation to say.... audio?
> Efficiency should always be aimed at the energy needs required over the
> total energy
> that has to be supplied to meet required needs. If a truck carries a grain
> of desired gold buried in a ton of junk would you call the mining operation
> 100% efficient by ignoring search costs of finding the grain of gold and the
> removal costs for the junk? I believe the above verifies my initial
> statement that a dipole can be seen as inefficient. As an engineer I cannot
> agree
> with power in versus power out (radiation) type statements as energy
> cannot be created or destroyed. Energy supplied by a lump of coal does not
> lose any energy in its change of state but as far as efficiency is concerned
> I do not count the energy that escaped in smoke as beneficial
> and thus quantified as a positive with respect to efficiency
> Regards
> Art
>
>
>
> "Dave Shrader" <david.shrader@comcast.net> wrote in message

> news:_ozZb.356634$I06.3765208@attbi_s01...
>
>>Guys, you're off on a tangent!
>>
>>I believe Efficiency is the ratio of power radiated to power input.
>>
>>If a dipole is 95% efficient it radiates 95 out of 100 watts.
>>
>>If a Yagi is 95% efficient it radiates 95 out of 100 watts.
>>
>>If a Quad is 95% efficient it radiates 95 out of 100 watts.
>>
>>If a vertical is 95% efficient it radiates 95 out of 100 watts.
>>
>>If a Log Periodic is 95% efficient it radiates 95 out of 100 watts.
>>
>>If a 1/10 wavelength antenna made of unobtainium is 95% efficient it
>>radiates 95 out of 100 watts.
>>
>>Don't confuse Gain, Directivity and Efficiency in the discussion.
>>
>>Deacon Dave
>>
>>Richard Harrison wrote:
>>
>>>Art, KB9MZ wrote:
>>>
>>
>>SNIP
>>
>>>In any case, "efficient" is only as compared with similar devices.
>>
>>SNIP: Wrong!! See above
>>
>>
>>>Recall that dBd is the norm as an isotropic antenna is only a
>>>theoretical creature. Catalogs are filled with antenna characteristics
>>>as compared with a 1/2-wave dipole in free space.
>>
>>SNIP: The comparison is generally Gain as dBd, dBi, or dBu
>>[unobtainium]. Not Efficiency!!!
>>
>>It is the standard of
>>
>>>comparison. It could hardly be correctly called inefficient.
>>>
>>>Best regards, Richard Harrison, KB5WZI
>>>
>>
>

>

2939. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 14:46:11 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <TaKZb.93948$jk2.442816@attbi_s53>
Source record: 99612

Oooooops
I meant mentally challenged, mentally handicapped is politically incorrect
Art
"'Doc" <w5lz@cwis.net> wrote in message news:4036FD93.6D0C3E1C@cwis.net...
> Art,
> Pssst! As I've explained to you at least six times before,
> "Doc" is a nick name. It has nothing at all to do with any
> degree, or profession. I'm sorry you can't understand that.
> I have never referred to my self as a doctor of anything. You
> have referred to me as 'Doctor' several times, and each time
> I've tried to correct that misimpression. Add this time to that
> list.
> My thoughts are fairly conventional, but there are a few
> independent ones that sneak in every once in a while. All in
> all,
> I'm boringly average. I'm comfortable with that, not sure I'd
> even want to change it, too lazy I think.
> I'm also fairly experienced in recognizing B.S. when I hear
> it (used to be a government employee, you know).
> 'Doc
> (Not to be confused with 'Doctor')

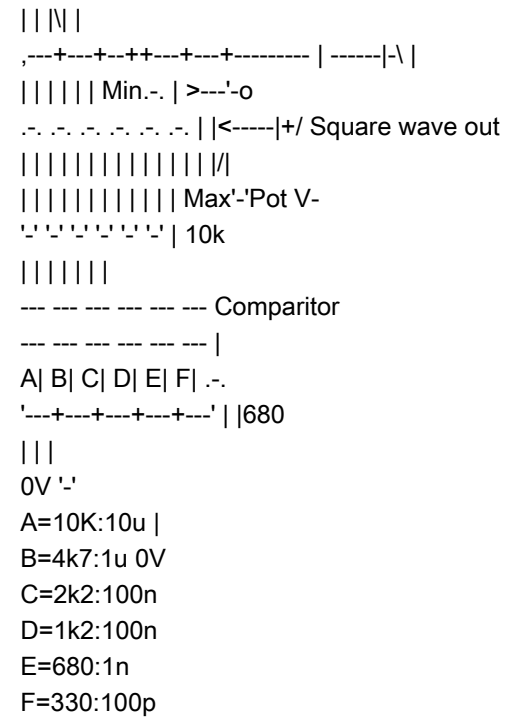
2940. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 14:49:37 UTC
From: John Jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <c17qqe$2r3$1@newsg1.svr.pol.co.uk>
Source record: 99611
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

Ban <bansuri@web.de> wrote in message
news:3IjZb.347242$_P.11902238@news4.tin.it...
> John Jardine wrote:
> > Diego Stutzer <abcdstutzer@evard.ch> wrote in message
> > news:aca3ec4c.0402190230.bb2d1cf@posting.google.com...
> >> Hi,
-clip-
>
> ___
> o-|___|--+--------+--------+---o
> 10k | | |
> | | |
> --- --- ---
> --- --- ---
> |100n |10n | 3n3
> .-. .-. |
> | | | | |
> | |15k | |10k |
> '-' '-' |
> | | |
> o--------+--------+--------+---o
> created by Andy's ASCII-Circuit v1.24.140803 Beta www.tech-chat.de
> use fixed font to view
>
> This does exactly what you want, in the beginning the slope is less than
> 3dB/oct. and at 10kHz it goes to 6dB/oct.
> This is how to produce a pink noise that rolls off faster at the end of
> range, or to make some weighted filters (dBA) etc.
>
> ciao Ban
>

```
[Slightly OT].These 'spread CR' things are *weird*. How else can 1Hz to 1MHz
be set with just one pot!.

,------------------+--------------.
| | |
.-. .-. |
2k7| | | | |
| | | | |
'-' '-'220 |
| | |
| • V+ |
```



created by Andy&#65533;s ASCII-Circuit v1.24.140803 Beta www.tech-chat.de

regards
john

2941. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 15:03:08 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0402210703.21e4508b@posting.google.com>
Source record: 99613

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40367ecb$1_3@corp.newsgroups.com>...
> Brian Kelly wrote:
>
> > Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >>http://www.ryanherco.com/auto/GRPindex.cfm?FAM=775&SEC=860&GRP=120
> >
> > Nice stuff Cecil but how do you transport 40 footers home??
>
> I knew I was only going to use them for the upper 20 ft on each end
> of a dipole, so I sawed them in half proving that I am smarter than
> the average bear. Your mileage may vary. :-)

Yeah, yeah . . ! I have a couple 40 foot lengths of aluminum
irrigation tubing I do *not* want to cut in half which Carl Anderson
would like to have. I'm fishing for somebody's flash of brilliance WRT
to how to haul the things over the road. You're no solution!

When I bought 'em back in the stone age I was able to simply cartop a
load of 'em home from the boonies of South Jersey. But since then laws
have been enacted which limit load overhangs to three feet fore and
aft. Maybe a long boat trailer . .

w3rv

2942. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 15:48:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c17uk5$2uv$1@titan.btinternet.com>
Source record: 99614

Z

2943. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 16:52:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40378dcb_3@corp.newsgroups.com>
Source record: 99615

Tdonaly wrote:
> What's that you said about ad hominem attacks, Cecil?

The last part of "ad hominem" means "to the man", Tom, not
to the Flat Earth *Society*. An ad hominem attack, by definition,
is aimed at an individual, not at a group.

> If you have to sink to misrepresenting other people's ideas in order to "win"
> your argument, you've actually admitted that you've lost.

I treat people the way I am first treated by them, Tom. If one
wants me to treat him like a decent human being, then one has
to act decently. There are a number of people on this newsgroup
who act decently and a number who don't.

I notice that instead of just admitting that a real-world physically
large loading coil can occupy 1/2 wavelength, you are having to resort
to accusations of ad hominem attacks as a diversion away from that
central issue.

Falsely accusing me of an ad hominem attack when I rag on the Flat
Earth Society *is* an ad hominem attack so "you've actually admitted
that you've lost." Your words, copied and pasted from above. Hint:
Be civil to me and I'll be civil to you.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2944. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 17:51:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o26f30lvjtotr5b4t9rlmr46smevkd787h@4ax.com>
Source record: 99616
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

On 19 Feb 2004 02:30:00 -0800, abcdstutzer@evard.ch (Diego Stutzer)
wrote:
>Is there some kind of procedure like the one for syntesizeing LC-Filters
>(Butterworth, Chebychev,..)?

Hi Diego,

This can be done in a number of ways employing active components (I've
just seen the drift of the thread take on this complexity).

The Bi-Quad filter comes to mind and has been around implemented with
Op-Amps for quite a while.

Another is the cascaded, bucket-brigade chip from reticon (haven't
played with this for 20 years tho').

You could also build an MCU interfacing ADC and DAC chips or simply
step up to DSP chips for filters that are impossible to implement in
any combination of passive L-C-R combinations.

However, the Bi-Quad offers simultaneous Low Pass, Band Pass, Band
Reject, and High Pass outputs from one circuit configuration. For
playing around with, that flexibility is hard to beat.

73's
Richard Clark, KB7QHC

2945. Re: Mobile 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 17:59:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gk6f30du1df35qd3esln126b92d5um8rg5@4ax.com>
Source record: 99617

On Sat, 21 Feb 2004 08:08:23 -0800, Bill Turner <noway@nohow.com>
wrote:

>On 21 Feb 2004 00:07:50 GMT, nightowls627@aol.comnojunk (Greg Doughty)
>wrote:
>
>>My only option is an adjustable angle mount on the hood, rear gate, or mounting
>>the antenna to the frame under the front or rear bumper?
>
>____
>
>Why not a mag mount on the roof? It will work better than any of the
>above. You won't have to drill any holes if you route the coax through
>the door jamb. I've done that on many vehicles with no problems at all.
>You'd think the coax would get squashed when the door closes, but it
>doesn't; at least not enough to matter.

Actually, many of the complaints made to this board often reveal that
both the "thru-the-glass" and magmount are inferior to sheet metal
mounted antennas. Both style certainly work, and well enough for
most, but for those at the edges, they find much better performance
from good solid metallic connections.

>
>On 2 meters, when you put an antenna down low, like on the bumper, two
>things happen, both bad: It becomes very directional due to the
>blocking effect of the car body, and it's ground wave coverage drops
>dramatically. Higher is better.

Higher is always better, but I would dispute that the car body somehow
"shields" an antenna (unless the antenna is butt up against the cab,
say). More often than not, the favored direction (the major lobe) is
found aligned in the direction of the most metal. That is, with a
bumper mount or fender mount, the best propagation is corner to corner
across the car NOT away from the car. In other words, the sheet metal
of the body supports and favors lobe development (instead of the metal
acting as reflector). I've noted this documented by QST since the
'60s.

73's
Richard Clark, KB7QHC

2946. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 18:05:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <157f30dlfflsmltqugc2tf8qnbsivv38h7@4ax.com>
Source record: 99618

a veritable font of flat earth socialist semantic nonsense:

On Sat, 21 Feb 2004 10:52:43 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Falsely accusing me of an ad hominem attack when I rag on the Flat
>Earth Society *is* an ad hominem attack so "you've actually admitted
>that you've lost."

On Tue, 17 Feb 2004 17:07:41 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>It's not ad hominem if it's true

2947. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 18:10:40 UTC
From: richardharrison@webtv.net
Message-ID: <267-40379F20-24@storefull-3252.bay.webtv.net>
Source record: 99519

teve Nosko wrote:
"BTW--what is your line, Richard?"

I apologize for a critical tone in my response to Steve`s posting. An ancient previous discussion of dissipationless resistance in this newsgroup leaves me primed to comment when it appears unappreciated.

Dissipationless resistance is the stuff which allows a Class C amplifier exceed 50% efficiency.

I won`t say I`ve been teaching X years, as I`ve never had that role. Long ago, I found my patience and temperament unsuited to tutoring. I am a long retired electrical engineer and find entertainment in the newsgroups.

Best regards, Richard Harrison, KB5WZI

2948. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 19:00:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4037aba0$1_8@corp.newsgroups.com>
Source record: 99520

Richard Clark wrote:
> a veritable font of flat earth socialist semantic nonsense:

In accordance with the subject of this thread. But it's
libertarian, not socialist. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2949. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 19:04:24 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <YYNZb.23528$%d3.2270627@twister.southeast.rr.com>
Source record: 99525

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0402201122.658bb7dd@posting.google.com...
> Tom,I agree with much of what you say but the problem goes much deeper
> than that, and much of the blame rests with academics taught.
> Let us look at what is called by some as a 'simple dipole'.
> The dipole is very inefficient radiator.
> The only claim that you can place on it is that it is has a low
> impedance
> at resonance...Period. There is no calculation available in any of the
> touted books that maximum gain per unit length is design related to a
> dipole! The dipole is only a reference that other antennas can be
> related to even tho it is a very inefficient radiator per unit length.
> Over time academics have made the dipole as something very efficient
> about which every advance must be related .
> That Tom is very incorrect and it is that which is what prevents the
> emergence of new ideas that push the envelope. If one just spouts what
> is in present day books then they are just followers that suck up the
> dipole aproach which thus prevents them from contributing anything
> that pushes out the envelope. Education
> can only take you so far and it is dependent on those who have
> received an education to push the envelope further. If one doesn't do
> this then they are just quoting things that were told to them or they
> read in some book and thus are not equiped to pushing the envelope.
> Until the simple dipole is shead of its illusionary powers by the
> academics who write the books newcomers can only copy, and not
> progress. Ofcourse, academics who just memorise can still attack
> people, those who do not agree with them, in a personal way in the
> hope that a raucous crowd of peasants will echo the academics trash
> around the Gillotine.
>
> Regards
> Art
>
>
>
>
>
Gain and efficecey have nothing to do with each other

Efficency is based on how much of your signal your antenna turns into heat
compared to the amount radiated and nothing more. Gain is based of how your
antenna shapes the pattern. The fact is a simple dipole will often service
more area than high gain antennas. The high gain antenna just uses radiation
that would normally go some where you are not interested in to intensifies

the signal in an area where you want to communicate. Art this is a fact you really need to understand. Dont feel bad about it though, I believe gain was a very poor word chosen to discribe the effect of an antenna on the shape of its field. Gain typically means to amplify which is something an antenna can not do. This all means that it is possible that a simple dipole is more efficent than a Yagi_Uda antenna with 10 dbd of gain. The dipole may be slighly more effeicent due to less losses coupling to the feed line. Mind you this will be a very small diference in losses when comparing well designed antennas.

Unless you are willing to give demonstrative proof of your ideas you should not insult us that that hold dear our beliefs and theories by refering to us as raucous crowd of peasants. I you are unwilling to prove your points you only appear as a fool. Our belefs and theories have been tested over many years and have found to be true as far as they have been tested, your ideas have not been tested by you at all. You assign words new meanings that are not typical of those discussing antennas and expect others to understand you. You ask for critical opinon of your ideaas but become angry when someone disagrees with you. If you really think you have some kind of new break through put your money where yiur mouth is and demonstrate them or go join the free power bunch, they will love and embrace you and take your money..

2950. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 19:13:25 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040221141325.26340.00000129@mb-m20.aol.com>
Source record: 99521

>
>Richard Clark wrote:
>> a veritable font of flat earth socialist semantic nonsense:

What does the "socialist" crap have to do here?
Another twisted tangent of smokey mirrors to obscure the reality?

IMWTK

Yuri

2951. Re: Mobile 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 19:15:02 UTC
From: nightowls627@aol.comnojunk
Message-ID: <20040221141502.20529.00000120@mb-m24.aol.com>
Source record: 99522

Thanks so much. All great ideas. I once again may go with the mag mount.

Thanks
73
Greg
ki4bbl@arrl.net

2952. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 19:16:24 UTC
From: Max Hauser <maxREMOVE@THIStdl.com>
Message-ID: <103fbk9bne1ee5c@corp.supernews.com>
Source record: 99523
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

"Diego Stutzer" in news:aca3ec4c.0402190230.bb2d1cf@posting.google.com...
>
> Now the hard part. How does one create an Impedance, which decreases
> "slower", for frequencies close to zero but then decreases "faster" for
> higher frequencies, than the simple parallel RC-Circuit?
> Is there some kind of procedure like the one for syntesizeing LC-Filters
> (Butterworth, Chebychev,..)?

What you are asking about is a form of what's traditionally called the network synthesis problem (creating a network of components to realize a prescribed signal response) and specifically the synthesis of a one-port, or impedance.

At one time (when phone companies ruled the earth and computers had conquered few signals and DSP was reserved for BIG things like the US Perimeter Acquisition Radar at Concrete, North Dakota -- affectionately the "PAR"), this was a popular subject in engineering schools at the advanced-undergrad or graduate level. It is still extremely important sometimes, especially with the sophisticated signal processing used today on continuous-time signals in consumer products. A host of applied-mathematical techniques (Foster and Cauer synthesis, Brune's impedance-synthesis lemma, etc.) apply even to one-ports. Some of them are highly counterintuitive. Not, in other words, a subject perfectly matched to the contraints of brief advice on newsgroups. (Note also that Butterworth and Chebyshev approximants are mathematical methods to approach one group of curves out of things that naturally give you a different type of characteristic -- "Butterworth and Chebyshev" have nothing to do with specific circuit topologies or components). If you want to pursue it further I could suggest investigating "network synthesis." Temes and LaPatra had a reasonable modern (1970s) book about it. Karl Willy Wagner started it all in 1915 by inventing filters.

Richard Clark suggested also investigating the small op-amp "biquad" networks for designable frequency response (actually you can turn them into one-ports, the so-called shunt-filter class, but again a bit of a subject for a brief response). Note that technically a "bi-quad" is any network giving a biquadratic transfer function (2nd-order numerator and denominator) though in RC-active filters it's often applied to the closely related
�kerberg-Mossberg and Tow-Thomas configurations. For practical info see van Valkenberg's excellent general introductory book on filters from the 1980s.

For an accessible modern example of these small op-amp-based "biquad" networks, look up the LTC1562 from Linear Technology, a commercial chip with four trimmed "biquad" networks, programmable by outboard components for

applications from a few kHz to a few hundred kHz.

2953. Re: Mobile 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 19:22:46 UTC
From: t-tammaru@comcast.net
Message-ID: <wJOdndX8fa54MqrdRVn-gg@comcast.com>
Source record: 99524

You want that 2m antenna as high as possible. I think somebody makes a luggage rack mount; or, you can make one yourself out of a 3 inch piece of angle iron, and a U bolt. Wish I had a luggage rack. I had a 5/8 2m antenna on a mag mount once, blew off on the Delaware Memorial Bridge.

Tam/WB2TT
"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message news:20040220190750.01989.00000080@mb-m22.aol.com...
> I am going to a hamfest this weekend (Frostfest in Richmond, Va.) and would
> like to get all the parts to assemble my mobile antenna. Okay, after reading
> many many threads on newsgroups and eham, I have still a couple of questions. I
> have a 2000 Dodge Caravan (I posted before and had many good responses!) and
> now my wife has said I can drill. Well, I will only be using the ic 2100 on
> road trips and the like. I have an ht for all other things. On road trips we
> use a "snail" on the luggage rack. Kind of hard to get the antenna there now.
> My only option is an adjustable angle mount on the hood, rear gate, or mounting
> the antenna to the frame under the front or rear bumper? My wife doesn't mind
> a 5/8 wave on the bumpers as long as it can be removed. Are there any mounts
> for the bumper? It is a plastic bumper and the metal frame is recessed about
> 6-10 inches up under the bumper. I guess a mag mount will work but just not as
> well as a mount that is drilled. Will the clamp mount work on the hood?
>
> Thanks
> 73
> Greg
> ki4bbl@arrl.net

2954. TEST -Ignore

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 19:32:55 UTC
From: Tam/WB2TT <WB2TT@nospam.org>
Message-ID: <wrOdnRz1csTbL6rdRVn-jg@comcast.com>
Source record: 99526

test

2955. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 19:45:54 UTC
From: richardharrison@webtv.net
Message-ID: <27307-4037B572-55@storefull-3254.bay.webtv.net>
Source record: 99527

Cecil, W5DXP wrote:
"Anything on paper is just a freeze-frame snapshot."

Yes, as a-c alternates, standing-waves stand.

Standing-wave ratio=SWR

SWR = Emax/Emin, or SWR = Imax / Imin. The ratio is the same for volts or amps.

SWR expresses the magnitude of the reflection coefficient.

Reflection coefficient= Rho
Rho=(ZL/Zo)-1 / (ZL/Zo)+1

There are no volts or amps in the expression for Rho, so it is independent of signal strength. Though we may find SWR with a voltage probe, SWR is only indicating severity of mismatch which is a function of impedance ratios and is independent volts, amps, and power.

So long as you are consistent in using rms, peak, or even instantaneous values at the same point in the cycle of voltage or current, SWR values can be good. A good SWR meter reading does not depend on signal strength.

Best regards, Richard Harrison, KB5WZI

2956. Re: Semantic Nonsense

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 20:00:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <esdf30p7blg7ee6qco2rh05j6r7nalvnn7@4ax.com>
Source record: 99528

On 21 Feb 2004 19:13:25 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:
>>Richard Clark wrote:
>>> a veritable font of flat earth socialist semantic nonsense:
>What does the "socialist" crap have to do here?
Perhaps you could elaborate...
>Another twisted tangent of smokey mirrors to obscure the reality?
So ALL of this thread reads. Thanks for not drifting off topic. :-)

73's
Richard Clark, KB7QHC

2957. FS: MBVA tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 20:02:22 UTC
From: k9sqg@aol.com
Message-ID: <20040221150222.06623.00000129@mb-m05.aol.com>
Source record: 99529

Price reduced to $450 shipped, US only.

73s,

Evan

2958. Ur opinion on eham.com, QRZ.com, QTH.com???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 20:38:09 UTC
From: Mike Rophone <Kilo@Watt.org>
Message-ID: <2004221-21389-392693@foorum.com>
Source record: 99542

QRZ.com was one of the first. QTH.com is one of the neebies. They
are opening up a bees nest of BS with their forums. Eham will publish
everything from racial slurs to hams demanding ham businesses be JAILED
if their parts are a week or two late. If you have something positive to offer,
you're generally censored. (I guess the theory is that flames bring "visitors"
to the site.)

I gave up on QRZ.com YEARS ago when they started the forum crap. The mud
slinging got so bad, it became worse than Usenet! (Hard to believe, huh?!)

The latest entry is QTH.com. Scott seems to be keeping it under control. But
how long before someone posts the wrong thing and QTH.com gets involved in a
libel case???

I know some of you are going to choke, but I think one of the best, most well
maintained, most positive, and most responses from classifieds is ARRL.org. Now
if they'd just get a DX Cluster server at the site, I'd be their all day!

73 from Mike

--
Ce message a ete poste via la plateforme Web club-Internet.fr
This message has been posted by the Web platform club-Internet.fr

http://forums.club-internet.fr/

2959. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 20:41:07 UTC
From: richardharrison@webtv.net
Message-ID: <22643-4037C263-83@storefull-3256.bay.webtv.net>
Source record: 99533

Dave Shrader wrote:
"I believe Efficiency is the ratio of power radiated to power input."

Dave has a point. Basic efficiency is output divided by input.

Power, work, or energies can be used for the ratio. An example of energy efficiency is in the "all day efficiency" of an electric distribution transformer. The transformer may be energized but supplying little or no energy during many of the 24 hours. While idle, the transformer draws excitation current just as it does when fully loaded. So, the transformer`s 24-hour average efficiency is lower than its efficiency while nearly fully loaded.

Best regards, Richard Harrison, KB5WZI

2960. Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 20:44:12 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <9jgf3051vt7s7qko3i4h527trkr6rnlba0@4ax.com>
Source record: 99531

Hi,

I have a 4 el., 5 band quad on a Yeasu rotator on a Heights Aluminum tower. The antenna is swinging, in a fairly stiff breeze today, a total of about 20 degrees of arc. Of course that's not a problem with the width of the beam of a 4 el quad, but the 24 el 2 meter antenna I plan to add might have an issue with that much swing. I forget which model Yeasu rotator it is, but it is supposed to be big enough for the 4 el. quad (30 ft boom). G450? I think?

Anyway, is 20 degrees in a stiff wind too much? Can I expect the rotator to fail soon over this? The tower does not appear to be twisting. The rotor base plate doesn't seem to be moving. I don't think there's that much play in the bolts of the masting, and the tower appears tight to the mast. I think the play is in the rotator.

Is it common for a rotator to have that much play?

Dave Head

2961. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 20:51:26 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402211251.6885b5@posting.google.com>
Source record: 99532

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4036e874_6@corp.newsgroups.com>...
> Mark Keith wrote:
> > Thats Cecil alright. I know it's not a sears imposter. Use his 10m specs
> > to compare to my 40m specs...Totally valid comparison... Not...MK
>
> Sorry, I'm suffering from macular degeneration and missed the "40m"
> part. So how would you overcome an s7 vertical noise level on 40m
> at my QTH?

Overcome whatever it is causing the noise. MK

2962. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 21:02:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c18h1d$ep8$1@titan.btinternet.com>
Source record: 99534

What allows a class-C amplifier to exceed 50% efficiency is a small operating angle.

Reg, G4FGQ

2963. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 21:04:01 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <5JPZb.237960$U%5.1508921@attbi_s03>
Source record: 99535

"Jimmy" <Gfender@carolina.rr.com> wrote in message
news:YYNZb.23528$%d3.2270627@twister.southeast.rr.com...
>
> "Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
> news:85ed38d.0402201122.658bb7dd@posting.google.com...
> > Tom,I agree with much of what you say but the problem goes much deeper
> > than that, and much of the blame rests with academics taught.
> > Let us look at what is called by some as a 'simple dipole'.
> > The dipole is very inefficient radiator.
> > The only claim that you can place on it is that it is has a low
> > impedance
> > at resonance...Period. There is no calculation available in any of the
> > touted books that maximum gain per unit length is design related to a
> > dipole! The dipole is only a reference that other antennas can be
> > related to even tho it is a very inefficient radiator per unit length.
> > Over time academics have made the dipole as something very efficient
> > about which every advance must be related .
> > That Tom is very incorrect and it is that which is what prevents the
> > emergence of new ideas that push the envelope. If one just spouts what
> > is in present day books then they are just followers that suck up the
> > dipole aproach which thus prevents them from contributing anything
> > that pushes out the envelope. Education
> > can only take you so far and it is dependent on those who have
> > received an education to push the envelope further. If one doesn't do
> > this then they are just quoting things that were told to them or they
> > read in some book and thus are not equiped to pushing the envelope.
> > Until the simple dipole is shead of its illusionary powers by the
> > academics who write the books newcomers can only copy, and not
> > progress. Ofcourse, academics who just memorise can still attack
> > people, those who do not agree with them, in a personal way in the
> > hope that a raucous crowd of peasants will echo the academics trash
> > around the Gillotine.
> >
> > Regards
> > Art
> >
> >
> >
> >
> >
> Gain and efficecey have nothing to do with each other

Oooooops I have been pushing radiation efficiency per unit length for so
long my fingers gave up on me and wrote gain

>
> Efficency is based on how much of your signal your antenna turns into heat
> compared to the amount radiated and nothing more. Gain is based of how
your
> antenna shapes the pattern. The fact is a simple dipole will often service
> more area than high gain antennas. The high gain antenna just uses
radiation
> that would normally go some where you are not interested in to intensifies
> the signal in an area where you want to communicate. Art this is a fact
you
> really need to understand. Dont feel bad about it though, I believe gain
was
> a very poor word chosen to discribe the effect of an antenna on the shape
of
> its field. Gain typically means to amplify which is something an antenna
can
> not do. This all means that it is possible that a simple dipole is more
> efficent than a Yagi_Uda antenna with 10 dbd of gain. The dipole may be
> slighly more effeicent due to less losses coupling to the feed line. Mind
> you this will be a very small diference in losses when comparing well
> designed antennas.
>
> Unless you are willing to give demonstrative proof of your ideas you
should
> not insult us that that hold dear our beliefs and theories by refering to
us
> as raucous crowd of peasants. I you are unwilling to prove your points you
> only appear as a fool.
So am a fool.. so what

Our belefs and theories have been tested over many
> years and have found to be true as far as they have been tested, your
ideas
> have not been tested by you at all.

Oh not so...I tried to share it with the group many times and always called
me a fool
so I must be one. As for my ideas being tested ofcourse they have and I laid
out the money
and did the walk

You assign words new meanings that are

so if you have trouble by me not using typical word then ask questions,
I think for myself
> not typical of those discussing antennas and expect others to understand
> you.

Geez What started all this,are you a buddy of the doctor or something?

I declared a antenna with a patent infact two of them,they did not attract
attention
but at least I did my thing.And yes I have another one going plus I am

hoping to publish it
this year. Yes it may bomb out as far as interest goes but I am meeting my own objectives,
if amateurs are not willing to explore or go beyond the accepted way of thinking well to them it is a hobby
. If you do try to push the envelope then you will inevitably focus on thing that are not the norm. If you feel I should present them all to you in a take and not give aproach tough I tried that a few times on this group and experts like the Doctor and Shakespeare just wanted to laugh off the thought of any new ideas and more like minds jumped on the bandwaggon for a free laugh. This cruelty has happened many times before with other people...just think of the erudite members that we have lost in just the last two months which really doesn't matter to appliance operators but for me who is interested in the technical side.....well I miss them

You ask for critical opinon of your ideaas but become angry when
> someone disagrees with you.

Yes if I feel their attempt was dishonourable, I am English I can't think of running away. If this is the time for me to die then so be it but I will not be cowed.

If you really think you have some kind of new
> break through put your money where yiur mouth is and demonstrate them or go
> join the free power bunch, they will love and embrace you and take your
> money..Well go and read my past patents some cost me money and some cost company money
now you have an opportunity to do the walk instead of following the Doctor and Shakespeare
over a cliff. Now you could turn on Yuri he has the guts to stand up for himself even if it apears that he is alone., Maybe he will be an easy target for you but I doubt it

When I said 'peasants' I was refering to the likes of the Doctor and Richard hic Shakespeare who just love to attack people or complain they don't understand
or a posting is so meaningless and of course Richard has placed nasty comments about
pretty much everybody and he hasn't jumped on me yet ,but ofcourse the Doctor quickly got back on the net
to do his thing. I don't know if I have ever responded to you before but if you think the hat was meant for or fitted you then I apologise. I do not intend to be nasty but I do not hesitate to respond in kind
Best regards
Art

2964. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 21:08:49 UTC
From: richardharrison@webtv.net
Message-ID: <22644-4037C8E1-25@storefull-3256.bay.webtv.net>
Source record: 99537

Jimmy wrote:
"Efficiency is based on how much of your signal your antenna turns into heat compared to the amount radiated and nothing more."

With some reshuffle of terms, Terman seems to agree. On page 893 of his 1955 edition:

"The efficiency of the antenna as a radiator is the ratio: Rradiation / Rradiation + Rloss----."

Best regards, Richard Harrison, KB5WZI

2965. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 21:10:27 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0402211310.31f40262@posting.google.com>
Source record: 99536

"aunwin" <aunwin@insightbb.com> wrote in message
> If given the the gain at 90 degrees would you interpret that as having zero
> over the horizon at say 15 degrees ?. Zero at 30 degrees? I would say that
> if an antenna is a cloud warmer it does not necessarily discriminate against
> low angle signals so it is not or should not be a statement of derisement.

It's simple to check using eznec. One advantage eznec has over some
other programs as far as the plot...
You do a far field plot, and look at the pattern plot. You will see
max gain at a certain angle. At that angle , at the top of the plot,
you will see a little green ball. You can "grab" that green ball or
marker and drag it down to whatever angle you want to look at. You
could check overhead, at 20 degrees, 10, 5, or whatever angle you want
to see.

> Frankly this business of comparing antennas is pretty stupid UNLESS one
> prescribes a specific object .

That ain't no joke... MK

2966. Re: Mobile 2m antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 21:14:07 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <JKSdnYbaGb7UIardRVn-vw@ctc.net>
Source record: 99530

> Higher is always better, but I would dispute that the car body somehow
> "shields" an antenna (unless the antenna is butt up against the cab,
> say). More often than not, the favored direction (the major lobe) is
> found aligned in the direction of the most metal. That is, with a
> bumper mount or fender mount, the best propagation is corner to corner
> across the car NOT away from the car. In other words, the sheet metal
> of the body supports and favors lobe development (instead of the metal
> acting as reflector). I've noted this documented by QST since the
> '60s.
>
> 73's
> Richard Clark, KB7QHC

I won't get into the method but it has a lot to do with the frequency and if the antenna is a full 1/4 wave, 5/8 , or longer co-linear antenna as to what the patern is. The patern can be over the longest metal path for a 10 meter whip or it can be "blocked' and go in the opposit direction for an antenna mounted on one side of the trunk of a car for a co-linear 440 mhz antenna. This is from the antenna makers diagrams and polar plots. I have observed by leaving a car in one spot and changing from a 1/4 wave, 5/8 wave and a 6 foot long colinear 2 meter antennas on the same mount that each can have a diffrant patern , especially where working repeaters and the repeater antennas are at differant heights. For the areas I am in , I would rather have a 1/4 wave in the center of the roof , but have settled for a 38 inch long colinear type dual band antenna on one side of the trunk of my car and not worried about it.

2967. Sky-wave Trigonometry - New program.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 21:21:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c18i57$he1$1@titan.btinternet.com>
Source record: 99538

For given ground path distance and height of reflecting layer this program
calculates elevation angle, angle of incidence with the layer and the
radio-path distances for one and two hops.

The program then gives an insight into how the various losses are
proportioned along the radio path. A 100-watt transmitter is used at one
end of the path with a receiver + S-meter at the other.

Download in a few seconds program TWOHOPS from website below and run
immdediately.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

2968. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 21:38:40 UTC
From: Bill J <w3fi@nwboronet.com>
Message-ID: <MdQZb.201$g81.6456@eagle.america.net>
Source record: 99539

I have been looking at my beam also thinking it is moving too much in
the wind. It is a Yaesu rotor and a Moseley 4 element beam. Almost looks
like the 2" mast (about 5 ft.) is flexing, but I am pretty sure that
can't be. It is up 45 feet on a Universal Aluminum unguyed tower very
firmly mounted in concrete.

Dave Head wrote:
> Hi,
>
> I have a 4 el., 5 band quad on a Yeasu rotator on a Heights Aluminum tower.
> The antenna is swinging, in a fairly stiff breeze today, a total of about 20
> degrees of arc. Of course that's not a problem with the width of the beam of a
> 4 el quad, but the 24 el 2 meter antenna I plan to add might have an issue with
> that much swing. I forget which model Yeasu rotator it is, but it is supposed
> to be big enough for the 4 el. quad (30 ft boom). G450? I think?
>
> Anyway, is 20 degrees in a stiff wind too much? Can I expect the rotator to
> fail soon over this? The tower does not appear to be twisting. The rotor base
> plate doesn't seem to be moving. I don't think there's that much play in the
> bolts of the masting, and the tower appears tight to the mast. I think the
> play is in the rotator.
>
> Is it common for a rotator to have that much play?
>
> Dave Head

2969. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 22:43:14 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4037e146_1@news1.prserv.net>
Source record: 99540

Dave:

Some of the huge commercial/government system rotators have built in torsion relief in the form of some sort of springing, but I don't think the smaller Yaesu have such. I would really be concerned with that much slack, as the larger the swing is, the more inertia the assembly builds up to pound the rotator internals into dust. Plus, if that model rotator has a positive 'brake' like the HAM series, then you are in a heap of trouble, as the brake has definitely failed. Best get it repaired before the spring winds.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Dave Head" <rally2xs@att.net> wrote in message
news:9jgf3051vt7s7qko3i4h527trkr6rnlba0@4ax.com...
> Hi,
>
> I have a 4 el., 5 band quad on a Yeasu rotator on a Heights Aluminum
tower.
> The antenna is swinging, in a fairly stiff breeze today, a total of about
20
> degrees of arc. Of course that's not a problem with the width of the beam
of a
> 4 el quad, but the 24 el 2 meter antenna I plan to add might have an issue
with
> that much swing. I forget which model Yeasu rotator it is, but it is
supposed
> to be big enough for the 4 el. quad (30 ft boom). G450? I think?
>
> Anyway, is 20 degrees in a stiff wind too much? Can I expect the rotator
to
> fail soon over this? The tower does not appear to be twisting. The rotor
base
> plate doesn't seem to be moving. I don't think there's that much play in
the
> bolts of the masting, and the tower appears tight to the mast. I think
the
> play is in the rotator.
>
> Is it common for a rotator to have that much play?
>
> Dave Head

2970. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 22:45:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4037e097_3@corp.newsgroups.com>
Source record: 99541

Mark Keith wrote:
> Overcome whatever it is causing the noise. MK

Overcome Entergy? Shirley, you jest. I'm just lucky to get electricity to my house with or without noise. The same holds true for telephone service. Half the time, the telephone line noise is so bad, my modem won't work. The telephone company says, yep, they need to replace a section of cable that runs under the highway. The 60 Hz AC noise is so bad all over town that it drowns out WTAW, a 10kW AM station 30 miles away.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2971. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 23:33:49 UTC
From: k9sqg@aol.com
Message-ID: <20040221183349.09990.00000155@mb-m17.aol.com>
Source record: 99543

That is almost as much play as I had in my system, with a 2 el 40 m beam and a tribander, but I had a 40 ft torque tube down the tower to absorb the forces.

73s,

Evan

2972. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 23:43:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c5qf3015e707mggj0nv3165og3df01i7n2@4ax.com>
Source record: 99544

On Sat, 21 Feb 2004 19:04:24 GMT, "Jimmy" <Gfender@carolina.rr.com>
wrote:
>Gain and efficecey have nothing to do with each other

Hi Jimmy,

In the classic sense, this is very true.

However, when we look at gain integrated over all dimensions, we
arrive at the concept of the isotropic reference. As a basis of
comparison (skip the sophistry of there being no such physical device)
this too reveals how gain and efficiency can be compared.

In other words, with gain you can play the numbers to claim efficiency
by sweeping the bad news under the carpet if you simply ignore the
integration factor. A prime example is the recent glowing reports of
the cfa. The "inventor" claims that his "FCC" tests reveal a gain of
his antenna over the standard monopole, through substitution with an
actual broadcast band, licensed transmitter.

Well, perhaps in the direction of the nearby tower it was supposed to
replace. When you look in every other direction, and step well away
from the source (say, like were the listeners actually live and
listen); then it is a different game altogether. Only 20 miles out
and you find the cfa 30dB down into the mud compared to FCC standard
charts (I won't go deeply into the fact that the comparison BC station
had a piss-poor antenna itself 10dB down from those same charts).

True, no one did a helicopter flyover to vindicate the cfa's
redemption of superb cloud warming capabilities, but that was not
where the listening audience lives. Further, given that the cfa's
poor performance conformed to modeling along the testing scenario, it
was hardly an indictment of the models that they did not reveal the
glow in the sky.

So, when you see claims based against gain tied to arguments of
efficiency (apply any special terminology you wish) ask the hard
questions and observe the answers. Do they respond with technical
specifications that answer the issue, or are they laden with conflict
and personality?

73's
Richard Clark, KB7QHC

2973. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-21 23:52:08 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <HaSZb.377697$na.568349@attbi_s04>
Source record: 99545

Dave Head wrote:
> Hi,
>
> I have a 4 el., 5 band quad on a Yeasu rotator on a Heights Aluminum tower.
> The antenna is swinging, in a fairly stiff breeze today, a total of about 20
> degrees of arc.

SNIP
>
> Is it common for a rotator to have that much play?
>
> Dave Head

No!!

Possibly the support mast, quad to rotator, is not pinned [pin failure]
or the brake in the Rotator has failed.

But, more than likely the G-450 is too small for your antenna.

The specifications for the G450 are for 'small yagi''. Also, page 7 of
the manual, which can be found at: [the link is complete. Just click it
and locate the manual]

<http://www.yaesu.com/indexVS.cfm?cmd=DisplayProducts&ProdCatID=104&encProdID=X35dwkkMbr0%
3D&DivisionID=65&isArchived=0>

indicates that two terms are required for evaluation of load. The first,
the cross section wind load; the second, a K factor as defined by Yaesu.

I really suspect the antenna is too large for the G450.

Hope you can solve your problem.

Deacon Dave, W1MCE

2974. Re: TEST -Ignore

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 00:00:56 UTC
From: KZ3AB <KZ3AB@ARRL.net>
Message-ID: <2KadnevAGcKmbKrdRVn-jg@comcast.com>
Source record: 99546

QSL! It works!

73,
Al

--######--

"Tam/WB2TT" <WB2TT@nospam.org> wrote in message
news:wrOdnRz1csTbL6rdRVn-jg@comcast.com...
> test
>
>

2975. For Sale: Wire Antenna Tool

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 00:03:33 UTC
From: KZ3AB <KZ3AB@ARRL.net>
Message-ID: <vaOdnRgMlfBLbKrdRVn-jw@comcast.com>
Source record: 99547

Check out <http://www.ezhang.com>.

2976. Some help with Dipole Height

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 01:27:28 UTC
From: michael.manning@denewc.ang.af.mil
Message-ID: <14d8594c.0402211727.11453798@posting.google.com>
Source record: 99548

From what I am learning the dipole antenna does not necessarily follow the rule "the higher the better" Does anyone know what is a good height for a center fed dipole (10 meter) I want to use this for contacts into Europe and possibly Asia. My ground conductivity is not all that great. I am located in Northern Delaware. I want to acheive a classic dipole pattern just need to know ideal height. This antenna will be flat topped. It is contructed of 1/2" conduit and is possible to achieve a maximum height of 70 feet(suspended from a branch using two ropes to keep it parrallel) and a distance of 60 feet from the house. I want to use coax cable but open to ladder line...This is probably not an original question here, but have not found the answer and I don't have any modeling software.
Thank you
Mike

2977. Re: Some help with Dipole Height

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 01:39:26 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4038093f_8@corp.newsgroups.com>
Source record: 99549

Mike wrote:
> ... and I don't have any modeling software.

You can download a free demo version of EZNEC from http://www.eznec.com
and adjust the height until you get what you want.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2978. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 02:04:30 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <O6UZb.378596$na.568763@attbi_s04>
Source record: 99550

Good evening Art, I have a few minutes to put some thoughts on email regarding efficiency per unit length of an antenna, or antenna elements. I hope I don't glaze your eyes :-)

Efficiency by definition is work delivered to a load divided by the total work available.

The work [power] delivered to the load is the work available minus losses all divided by work available. Your car engine may have 100 horsepower available but losses [heat] in the transmission, drive shaft, differential, oils, fluids, bearings, tires and wheels may limit horsepower delivered to the road to 30 horsepower. In this model then the efficiency is 30%.

Note: bandwidth is not a factor. It is total work[power] delivered divided by total work[power] available.

For an antenna the following definition is applicable by similarity:

Efficiency = Radiated Power/Total power. By definition an antenna is a linear device and the Principle of Reciprocity is applicable. That is, it has the same efficiency either transmitting or receiving.

Now, total power = I^2*Reffective

Reffective = Radiation Resistance [Rradiation] + Loss Resistance.

Radiated Power = I^2*Rradiation.

Where I = Io*cos[wt + b]. Where wt = frequency, b = phase shift along antenna element.

By definition radiation resistance is that determined by integrating the total radiated power over the surface of the sphere containing that power. [1] For a half wave dipole that converges to the value at a current maximum. So, radiation resistance for a 1/2 wave infinitely thin dipole is 73 ohms at the current maximum.[1]

As one moves away from the current maximum the radiation resistance increases as 1/cosine(angle from the maximum)^2 i.e. 1/cos^2[theta].[2]

Now, in a uniform cross section antenna the Loss Resistance per unit length is constant.

So, the Radiation Resistance at the ends of the antenna is infinite. [Cosine 90 degrees = 0] That means the efficiency at the ends of a 1/2 wavelength dipole is 100%. Isn't that a surprise?? [It's the same for a dipole or a Yagi!!!!]

The Radiation Resistance at the 45 degree point from the current maximum of a thin 1/2 wavelength dipole is 73 ohms/(cos^2(45 degrees)) = 146 Ohms.

The conclusion is that the efficiency of an antenna element varies along it's length and can vary between maximum of infinity at the ends and have a minimum value, that depends on the length of the antenna, at a current maximum.

The total antenna efficiency is measured in the radiated pattern by integrating the power density per square steradian [or square degrees] over the full surface of a sphere divided by the power into the antenna.

So, a Yagi with 8.14 dBi (6 dBd + 2.14 dBi) gain has concentrated it's radiated power into 15.38% of the three dimensional space defined by the surface of a sphere. [See Note 1.] Now if the Yagi is 95 % efficient and a dipole is 95% efficient the 6 dBd value remains constant.

Note 1 [I'm using degrees instead of steradians to simplify understanding. The Science/math is the same]

The diameter of the earth is 360 degrees as measured from E-W and N-S. The surface is then proportional to 360^2 = 129600 square degrees. [I will be dividing the constant Pi in a subsequent step so it is deleted here.]

A 6 dBd Yagi is also +2.14 dBi giving a net gain of 8.14 dBi. This normalizes the value to a sphere.

So, 8.14 dBi = 10*Log(129600/X)
X = 19938.4 square degrees.

The Yagi has concentrated it's pattern into a piece of the surface of the sphere that represents 15.38% of the total surface [19938.4/129600]. This is Gain NOT efficiency.

Reference [1]: Antennas, Kraus, McGraw-Hill 1950, Chapter 5, section 5-6, pages 143-146.

Reference [2]: Antennas, Kraus, McGraw-Hill 1950, Chapter 5, section 5-7, pages 147-148.

2979. Re: Lumped Load Models v. Distributed Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 02:12:47 UTC
From: richardharrison@webtv.net
Message-ID: <267-4038101F-60@storefull-3252.bay.webtv.net>
Source record: 99552

Art, KB9MZ wrote:
"But you are not alone in this comparison game, somebody stated he read somewhere that the dipole was such and such efficient which is absolutely silly---."

The radiation resistance of a dipole may be about 70 ohms. If the surface resistance of the dipole added about 4 ohms, efficiency would be about 70/74, or 95%, the number I recalled seeing in Kraus.

Antenna efficiency is old news. The field a lossless antenna can produce at a point in space is easily calculated and measured. How close an antenna comes to the ideal is a measure of its efficiency.

Broadcasters and the FCC rely on such calculations and measurements.

Antenna efficiency is desirable and for broadcasters has been well researched.
Brown, Lewis, and Epstein are justly famous and are residents of Terman`s name index. RCA`s research was accpeted by the FCC and made a part of the rules. Antennas built according to the FCC rules are considered nearly 100% efficient. An example:
Realistic loss, mostly in the ground system, is about 1-ohm. The 1/4-wave tower may be 30-ohms (Rr). Efficiency is 30/31=97%

Of course, it`s possible to screw-up.

Best regards, Richard Harrison, KB5WZI

2980. Re: Some help with Dipole Height

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 02:13:07 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <TeUZb.378680$na.568763@attbi_s04>
Source record: 99551

The simple answer is: 1/2 wavelength high, or 1 wavelength high, or 2 wavelengths high. Not much is to be gained above 3 wavelengths high.

The antenna should be run from NW to SE.

Deacon Dave, W1MCE

Mike wrote:

> From what I am learning the dipole antenna does not necessarily
> follow the rule "the higher the better" Does anyone know what is a
> good height for a center fed dipole (10 meter) I want to use this for
> contacts into Europe and possibly Asia. My ground conductivity is not
> all that great. I am located in Northern Delaware. I want to acheive a
> classic dipole pattern just need to know ideal height. This antenna
> will be flat topped. It is contructed of 1/2" conduit and is possible
> to achieve a maximum height of 70 feet(suspended from a branch using
> two ropes to keep it parrallel) and a distance of 60 feet from the
> house. I want to use coax cable but open to ladder line...This is
> probably not an original question here, but have not found the answer
> and I don't have any modeling software.
> Thank you
> Mike

2981. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 03:19:39 UTC
From: richardharrison@webtv.net
Message-ID: <27310-40381FCB-79@storefull-3257.bay.webtv.net>
Source record: 99553

Reg, G4FGQ wrote:
"What allows a class-C amplifier to exceed 50% efficiency is a small operating angle."

Exactly, and during the majority of the degrees it`s switched completely off. It draws no current and suffers no "IsquaredR loss" during the amplifier off-time. Impedance is approximately E/I, but I is the average I, which is much less than the bursts of I during the conduction angle.

The switched-off time makes the I in the denominator of E/I very small indeed and the solution to Ohm`s law is a high impedance without the dissipation of a resistance that remains in place continuously while agitating the atoms of a poor conductor to limit current.

Instead, we have a low-resistanc in high conducton for short spurts. On-time is limited, instead of conduction, to produce a certain effective resistance.

An automobile Kettering ignition system may use a dwell-meter to indicate how much of the time the points are closed. An ohmmeter indicates the resistance between its test prods. The two test circuits are almost the same although limitation of the deflection of the dwell-meter is different from limitation of the deflection of the ohmmeter due to the difference between limited conduction angle ignition points, and the continuous conduction through a current-limiting resistor. There`s an analogy between Class C and Class A amplifiers in there somewhere.

Best regards, Richard Harrison, KB5WZI

2982. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 05:01:52 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <nvdg305dsv77jdp3l4eovkppedf8c8h0vc@4ax.com>
Source record: 99554

Maybe its a Yeasu characteristic, but I doubt it. My biggest suspicion is
loose mounting bolts. Will have to crank it over soon and take a look.

Thanks for the info.

Dave Head

On Sat, 21 Feb 2004 16:38:40 -0500, Bill J <w3fi@nwboronet.com> wrote:

>I have been looking at my beam also thinking it is moving too much in
>the wind. It is a Yaesu rotor and a Moseley 4 element beam. Almost looks
>like the 2" mast (about 5 ft.) is flexing, but I am pretty sure that
>can't be. It is up 45 feet on a Universal Aluminum unguyed tower very
>firmly mounted in concrete.
>
>Dave Head wrote:
>> Hi,
>>
>> I have a 4 el., 5 band quad on a Yeasu rotator on a Heights Aluminum tower.
>> The antenna is swinging, in a fairly stiff breeze today, a total of about 20
>> degrees of arc. Of course that's not a problem with the width of the beam of a
>> 4 el quad, but the 24 el 2 meter antenna I plan to add might have an issue with
>> that much swing. I forget which model Yeasu rotator it is, but it is supposed
>> to be big enough for the 4 el. quad (30 ft boom). G450? I think?
>>
>> Anyway, is 20 degrees in a stiff wind too much? Can I expect the rotator to
>> fail soon over this? The tower does not appear to be twisting. The rotor base
>> plate doesn't seem to be moving. I don't think there's that much play in the
>> bolts of the masting, and the tower appears tight to the mast. I think the
>> play is in the rotator.
>>
>> Is it common for a rotator to have that much play?
>>
>> Dave Head

2983. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 05:06:32 UTC
From: richardharrison@webtv.net
Message-ID: <22588-403838D8-155@storefull-3251.bay.webtv.net>
Source record: 99558

Dave Shrader wrote:
Lots of good stuff. Reciprocity is applicable to antennas. Antenna gain and directivity are the same transmitting or receiving. Impedance is the same as a source or load.

Dave wrote:
"That is, it has the same efficiency transmitting or receiving."

I hadn`t given that much thought but it seems to me there may be a difference. When an antenna is receiving, it is excited by the received signal, resulting in voltage and current on the antenna. The antenna doesn`t care about the source of the signal. If the antenna is conjugately matched to the receiver, radiation resistance is the source resistance of the signal feeding the receiver. Half the signal power is consumed in the source resistance (radiation resistance) and half is consumed in the receiver. The half consumed in the radiation resistance is re-radiated. The antenna doesn`t know that re-radiation is uncalled for. If the antenna is mismatched to the receiver, more than 50% of all power received is re-radiated, depending upon the severity of the mismatch.

If we have a Class C amplifier feeding power to the same antenna and enjoying a conjugate match, we can have a source that takes less than 50% of the available energy. So, the transmitting antenna system can be more efficient than the receiving antenna system, it seems to me.

Best regards, Richard Harrison, KB5WZI

2984. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 05:08:04 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <s1eg30h1sruncei5jecevs5rdtbq2pjut5@4ax.com>
Source record: 99555

On Sat, 21 Feb 2004 16:43:14 -0600, "Crazy George" <muNnscOh@attSglPobaAl.nMet>
wrote:

>Dave:
>
>Some of the huge commercial/government system rotators have built in torsion
>relief in the form of some sort of springing, but I don't think the smaller
>Yaesu have such. I would really be concerned with that much slack, as the
>larger the swing is, the more inertia the assembly builds up to pound the
>rotator internals into dust. Plus, if that model rotator has a positive
>'brake' like the HAM series, then you are in a heap of trouble, as the brake
>has definitely failed. Best get it repaired before the spring winds.

I think its supposed to have a brake. It is a Yeasu 800 DXA. Suspect loose mounting bolts - it hasn't been up so long for the rotator to simply fail, I think. The antenna is a Cubex 4 el, 5 band quad that is 7 sq ft and has a 30 ft boom. I think that rotator ought to handle it, as did the guy at Ham Radio Outlet. He actually talked me up to this one, when I was going to get a 450, but he pointed out the "K" factor, and how I needed the heavier rotator for that long boom. Something still isn't right, tho, I think.

It could be the masting, tho. I have a 3: diameter piece that goes into the rotator and is "pinned" there by a bolt, as well as clamped, then it goes to a "jackshaft" that is a smaller, about 4' length of 1 3/4" stainless steel with 1 or 2 1/4" bolts thru it. That goes thru the 1 3/4" top section collar, then a 3" heavy aluminum mast slips over the stainless jackshaft and is secured with 2 quarter-inch bolts. There's probably some play in the bolts, but I don't think there's that much. Mounting bolts on the bottom of the rotator - I think those may be loose.

Thanks for the info.

Dave Head

Dave

2985. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 05:09:31 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <ldeg30lm3m1un48h9vs57qg16da7l9ndj9@4ax.com>
Source record: 99556

On 21 Feb 2004 23:33:49 GMT, k9sqg@aol.com (K9SQG) wrote:

>That is almost as much play as I had in my system, with a 2 el 40 m beam and a
>tribander, but I had a 40 ft torque tube down the tower to absorb the forces.
>
>73s,
>
>Evan

Makes mine sound excessive, alright. Fortunately, this is one of those heights towers that cranks over. I'll likely have a look at it later this week.

Thanks,

Dave Head

2986. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 05:13:36 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <3geg30tclogmtdagu62h8n67pjmpf7e5pc@4ax.com>
Source record: 99557

On Sat, 21 Feb 2004 23:52:08 GMT, Dave Shrader <david.shrader@comcast.net>
wrote:

>Dave Head wrote:
>> Hi,
>>
>> I have a 4 el., 5 band quad on a Yeasu rotator on a Heights Aluminum tower.
>> The antenna is swinging, in a fairly stiff breeze today, a total of about 20
>> degrees of arc.
>
>SNIP
>>
>> Is it common for a rotator to have that much play?
>>
>> Dave Head
>
>No!!

That's what I thought.
>
>Possibly the support mast, quad to rotator, is not pinned [pin failure]
>or the brake in the Rotator has failed.

I don't think the pin has failed, but will look later this week. If the pin
failed, I think it'd just turn all the way around.

>But, more than likely the G-450 is too small for your antenna.

My mistake. Its an 800DXA.

>The specifications for the G450 are for 'small yagi''. Also, page 7 of
>the manual, which can be found at: [the link is complete. Just click it
>and locate the manual]

Yeah, I misremembered the size. I went up to HRO _intending_ to get a 450.
Got an 800 when the fellow there talked me up to it, pointing out the size of
my quad, esp. the 30' boom length.
>
><http://www.yaesu.com/indexVS.cfm?cmd=DisplayProducts&ProdCatID=104&encProdID=X35dwkkMbr0
%3D&DivisionID=65&isArchived=0>
>
>indicates that two terms are required for evaluation of load. The first,
> the cross section wind load; the second, a K factor as defined by Yaesu.
>
>I really suspect the antenna is too large for the G450.

>Hope you can solve your problem.

Will crank it over soon and have a look. I do remember significant "play" in the system when it was tilted over before. Probably should have looked at that a little more critically.

Thanks for the info.

Dave Head

>Deacon Dave, W1MCE

2987. any good sites on building antenna's for experiment's??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 05:46:08 UTC
From: Dustin <fordman@btc-bci.com>
Message-ID: <CmXZb.64$_i1.81045@news.uswest.net>
Source record: 99559

Hello, I am new to HAM radio and operated on a 2 meter radio and was wondering if there were any good websites that show you how to build your own antenna's just for experiments and that sort of thing? thank you

2988. Re: any good sites on building antenna's for experiment's??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 06:15:18 UTC
From: Chuck <chuck@nospam.com>
Message-ID: <403848F3.662334F7@nospam.com>
Source record: 99560

Hi Dustin,

welcome and glad to have you on the air !

http://www.cebik.com loads of antenna designs and info no charge.

for 2m, try these antenna, easy to build yourself, coax fed and easy to use.

http://www.cebik.com/hs.html called half square for 2 meters

http://www.cebik.com/moxbld.html Moxon for 2 meters
(this one little harder to build but great performance, similar to the yagi
but with less gain
and takes up less space.)

http://members.aol.com/k5oe/

http://www.softcom.net/users/kd6dks/quad.html

http://ac6v.com/antprojects.htm

73 chuck

Dustin wrote:

> Hello, I am new to HAM radio and operated on a 2 meter radio and was
> wondering if there were any good websites that show you how to build your
> own antenna's just for experiments and that sort of thing? thank you

2989. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 06:55:30 UTC
From: tdonaly@aol.com
Message-ID: <20040222015530.22662.00000134@mb-m10.aol.com>
Source record: 99561

Dave wrote,
>
>Where I = Io*cos[wt + b]. Where wt = frequency, b = phase shift along
>antenna element.
>

wt is radians per second times seconds which is just radians, an angle. b is
time related
also. Are you thinking of perhaps kl?

>By definition radiation resistance is that determined by integrating the
>total radiated power over the surface of the sphere containing that
>power.

Are you thinking of Rr=2Prad/|Io|^2?

>[1] For a half wave dipole that converges to the value at a
>current maximum. So, radiation resistance for a 1/2 wave infinitely thin
>dipole is 73 ohms at the current maximum.[1]

Balanis gives (eta/4pi)Cin(2pi)=73.
Cin is .5772+ln(2pi)-Ci(2pi) which is approximately equal to 2.435.
Ci is a tabulated function.

>
>So, the Radiation Resistance at the ends of the antenna is infinite.
>[Cosine 90 degrees = 0] That means the efficiency at the ends of a 1/2
>wavelength dipole is 100%. Isn't that a surprise?? [It's the same for a
>dipole or a Yagi!!!!]
>
>The Radiation Resistance at the 45 degree point from the current maximum
>of a thin 1/2 wavelength dipole is 73 ohms/(cos^2(45 degrees)) = 146 Ohms.
>
>The conclusion is that the efficiency of an antenna element varies along
>it's length and can vary between maximum of infinity at the ends and
>have a minimum value, that depends on the length of the antenna, at a
>current maximum.
>
>The total antenna efficiency is measured in the radiated pattern by
>integrating the power density per square steradian [or square degrees]
>over the full surface of a sphere divided by the power into the antenna.
>
>So, a Yagi with 8.14 dBi (6 dBd + 2.14 dBi) gain has concentrated it's
>radiated power into 15.38% of the three dimensional space defined by the
>surface of a sphere. [See Note 1.] Now if the Yagi is 95 % efficient and
>a dipole is 95% efficient the 6 dBd value remains constant.

>

Very entertaining.
73,
Tom Donaly, KA6RUH

2990. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 09:21:12 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <40387488.8080801@cableone.net>
Source record: 99562

Know what ya mean Ed. Used to mention Maxwell every now and then
myself but lets face facts, the coffee just isn't that good. Know whut
I mean!

Ed Price wrote:
> "Butch" <lynyrd@cableone.net> wrote in message
> news:103ajn05s611k28@corp.supernews.com...
>
>>Time out!! You people are taking all this far to seriously. Just throw
>> an aerial out the window, feed it to your rig via a tuner, and enjoy
>>Amateur radio.
>>
>>Butch Magee KF5DE
>
>
>
> It just not that simple, Butch.
>
> I'm sure you have heard that Ham radio is a hobby that has many facets;
> construction, public service, contesting, field trips, QRP DX, etc. Some of
> our members get their kicks merging theory with rag chewing. I don't think
> there's any structure to this sub-category, other than to require at least
> one mention of Maxwell in every discussion.
>
>
> Ed
> WB6WSN
>

2991. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 11:50:11 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <PH0_b.8188$C21.7011@fed1read07>
Source record: 99563

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4036e978$1_6@corp.newsgroups.com...
> J. McLaughlin wrote:
> > I can not for the life of me understand why some of you put responses at
> > the bottom and make one have to scan way down.
>
> Because anything else is a malicious violation of netnews guidelines?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Part of the task of composing a rational response is the ability to edit the previous post. A good response shouldn't burden you with excessive scrolling.

Ed
wb6wsn

2992. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 12:14:04 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <g21_b.380900$na.570389@attbi_s04>
Source record: 99564

Richard Harrison wrote:
SNIP
> Dave wrote:
> "That is, it has the same efficiency transmitting or receiving."
>
> I hadn`t given that much thought but it seems to me there may be a
> difference. When an antenna is receiving, it is excited by the received
> signal, resulting in voltage and current on the antenna.

SNIP: Agree

The antenna
> doesn`t care about the source of the signal. If the antenna is
> conjugately matched to the receiver, radiation resistance is the source
> resistance of the signal feeding the receiver.

SNIP: This resistance is the Radiation resistance of the antenna, i.e.
approximately 73 ohms in a thin 1/2 wavelength dipole.

Half the signal power is
> consumed in the source resistance (radiation resistance) and half is
> consumed in the receiver.

SNIP: Not quite. Half is RE-RADIATED. [It does not dissipate it
radiates!][See your next statement]. The other half is delivered to the
transmission line sub-system then to the receiver.

The half consumed in the radiation resistance
> is re-radiated.

SNIP: Agree

The antenna doesn't know that re-radiation is uncalled
> for.

SNIP: I wonder if this statement is the root of our misunderstanding? My
understanding is that the antenna does not have to know anything other
than passively allowing the Laws of Nature [Physics] to operate.

If the antenna is mismatched to the receiver, more than 50% of all
> power received is re-radiated, depending upon the severity of the
> mismatch.

SNIP: Have to think about what you are trying to say. If the antenna has
received a 10^-12 watt signal and 4*10^13 watts is delivered to the
transmission line and 5*10^-13 watts is reradiated then 1*10^13 watts
is energizing a standing wave in the antenna.

>
> If we have a Class C amplifier feeding power to the same antenna and
> enjoying a conjugate match, we can have a source that takes less than
> 50% of the available energy.

SNIP: Help me understand what you are trying to say.

So, the transmitting antenna system can be
> more efficient than the receiving antenna system, it seems to me.

SNIP: I probably disagree. But, I do not fully understand what you are
trying to say in the previous paragraph.

Deacon Dave

>
> Best regards, Richard Harrison, KB5WZI
>

2993. Re: Diathermy inteference on 2M

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 16:16:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4038d6ec_1@corp.newsgroups.com>
Source record: 99565

Ed Price wrote:
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>J. McLaughlin wrote:
>>>I can not for the life of me understand why some of you put responses at
>>>the bottom and make one have to scan way down.
>>
>>Because anything else is a malicious violation of netnews guidelines?
>
> Part of the task of composing a rational response is the ability to edit the
> previous post. A good response shouldn't burden you with excessive
> scrolling.

My posting was tongue-in-cheek but it did meet your guidelines. :-) However,
don't be surprised if you are accused of deleting the important stuff.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

2994. Butternut info

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 17:54:41 UTC
From: Paolo Emanuelli IK1QHB <ik1qhb@libero.it>
Message-ID: <B16_b.24651$Kc3.758612@twister2.libero.it>
Source record: 99566

Hi OM

My Butternut HF6V was off the game during ARRL 2004.....
On 80 m the antenna is mute now, and i belive one or two condenser between the 40 and 80m coil was burned (i was made a tune with my PA in 80m at 1 Kw with rainy night)

Can somebidy tell me if the problem really is the 200 pf condenser or 68 pf condenser, and where can i buy in USA with best price?

Tnx & 73

Paul IK1QHB

2995. Rhombic for 80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 18:37:36 UTC
From: Dan Yemiola <ai8o@Yahoo.com>
Message-ID: <c1asu2$av2u$1@news3.infoave.net>
Source record: 99567

Several related questions about Rhombics

Can any one point me to info on the design, building, care and feeding of
Rhombics?

Real estate is not a problem here, but I would like to have the feed points
for the antennas located close to my transmitter to keep feed lines short.
Can any one point me to mutual interference info on building two or more
80/40/20m Rhombics in close proximity to each other?

Imagine one antenna" main lobe oriented to Africa, another antenna's main
lobe oriented to Europe.
would there be a quick way to reverse these antennas main lobe directions
(180 degree reciprocal), from my shack?

--
Prokaryotes organize!
Support the Eukaryotic Revolution!
You have nothing to lose but your Anaerobic Chains!
Nuclei, Mitochondria, DNA!

2996. Message from QRZ.com founder

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 19:00:05 UTC
From: Jim Nasium <org@net.com>
Message-ID: <2004222-2005-416906@foorum.com>
Source record: 99482

Now we can only hope the founders of Eham.net take a hint.....

~~~~~~

Founder, QRZ.COM

Group: Super Administrators
Posts: 126
Joined: Dec. 1969

Posted: Feb. 05 2004,17:48
Upon looking at the responses to some of our latest postings, I have to agree with some users who've recently commented that QRZ seems to be stuck in a mire of name calling, rudeness, disrespect, intolerance and insensitivity. It seems that lately, every argument or discussion leads to a debate about CW, comparisons to CB'ers and a lamenting about "the way things were way back when... ". It becomes particularly ironic when people use this forum to rudely complain that certain licensing proposals will dumb down amateur radio and turn it into a channel 19 free-for-all reminiscent of Smokey and the Bandit. Can you see where I'm going with this?

The QRZ staff has, as of late, deleted several dozen postings and has removed user access privileges for a few individuals based in part upon their repeated abuses of the system and its members. Although it may seem apparent to some, I feel now would be a good time to reiterate our position on basic civility and personal conduct that is expected of all users on this system.

Let's look at some of the basics:

Ad hominem attacks are strictly prohibited.
What is an 'ad hominem' attack? The phrase 'ad hominem' is latin and it means, literally, 'against the person' (Look it up on Google). What this means to QRZ users is that as a reader and poster, you are free to write and disagree with anyone's postings or articles but under no circumstances may you attack the person that you disagree with. It's all about personal respect and dignity, something that everyone deserves at some level. In other words, you can remark that a particular position makes no sense but you can't say that the person writing it is an idiot!

Sexisim, Racisim, and Homophobia are Not Allowed
A recent posting by a female ham was met with a reply that suggested something along the lines of "women should stick to raising babies and washing clothes...". While some people might feel that such remarks are nothing but free speech opinions, they are nonetheless unacceptable at QRZ. The same holds true for any remarks about race and/or sexual orientation. The bottom line on these subjects is the time honored "keep it to yourself" principle. Those who feel like being naughty and engaging in such postings will quickly see how if feels
~~~~~~

to be ostracised from the rest of the group.

The QRZ Editors and Moderators have the Final Word
Don't try and appeal the decisions made by our Editors and Moderators. You have no right to free speech here. Your thoughts and opinions appear on the QRZ website at our pleasure. Once you post something here, you no longer own it and we can reproduce it, or not, in any manner that we see fit. We can and will censor articles as we choose. This doesn't mean that we condone or share any opinion that is posted here, nor does it mean that any failure or delay on our part to censor something constitutes our approval of any kind. We do our best to keep the site running cleanly with a friendly, open atmosphere but frankly, it's no small task. With 100's of new postings every day it can be difficult for our moderators to stay up to date with the latest rants and raves.

Improper postings will be deleted without notice.
Don't expect to be notified when we remove something that you posted here. We usually don't have the time to explain that your posting was rude, offensive, out of context or just plain stupid. It should be apparent as to which types of comments are considered civilized and so if you're stuff is getting deleted often then perhaps it's time for you to take a good look at your approach to communications in general. We're not going to tell you that you're an ass, we'll leave that up to you to figure out.

Anonymous Users get the Least Consideration
When we're making editorial judgement calls on what should and should not be allowed on the system, we automatically cast a jaded eye on postings from people who register and post anonymously. It should come as no surprise that some of the worst abusers that we've ever had never registered with a call sign or any tracable identity. This author feels that comments made by a users having anonymous or fictitous names have little more value than bathroom wall graffiti. Few if any second chances are ever given to anonymous users.

Code vs. No-Code
We're all getting tired of this endless debate. I haven't seen a fresh idea on the subject in many months, perhaps years, of operating QRZ. It doesn't matter what you say regarding the issue, it's been said before and been rebutted before. The majority of the free world has already decided the issue and there isn't a snowball's chance that we're not going to join with them. We should all just get used to the idea and move on. There are other fish to fry. Let's try a fresh one!

How to Tell if your QRZ Account is on the Skids
Your QRZ account might be in trouble if:

Your postings never seem to stay online very long
You see the message "Your posting permissions have been removed".
You find yourself becoming increasingly involved in heated, off-line email exchanges with other QRZ users.
A QRZ editor or moderator issues you a warning that you choose to argue over.
The QRZ editors stop answering your emails altogether
The people at eHam.net have banned you as well.
Your name keeps popping up on the 80 ragchew nets

It feels to you like everybody on QRZ is an idiot and that you're the only sane person around
You're getting fired from your job after your boss catches you filing a ranting diatribe on QRZ about "The Elimination of CW" on the company computer.
You threaten QRZ with legal action over your free speech rights.

Don't let any of these things happen to you. Now that we have over 200,000 registered users, we can afford to lose you. In fact, losing you might mean that 40 other users don't quit the site in utter disgust.

And finally, one last word about censorship and free speech. As I said at the beginning of this article, your arguments for and against the discussion topics presented here are always welcome. Don't ever let it get profane or personal, however, and don't forget that almost everybody here has a life outside of ham radio. Use yours wisely and have fun (but not at someone else's expense)!

Fred Lloyd, AA7BQ

Fred Lloyd, AA7BQ Founder, QRZ.COM

--
Ce message a ete poste via la plateforme Web club-Internet.fr
This message has been posted by the Web platform club-Internet.fr

http://forums.club-internet.fr/

2997. Re: For Sale: Wire Antenna Tool

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 19:00:47 UTC
From: Trace Klassen <ve7rz@shaw.ca>
Message-ID: <z%6_b.577812$JQ1.375240@pd7tw1no>
Source record: 99568

I cant believe peaple will pay 89 bux for a slingshot and reel. Wow I am in
the wrong line of work :P

I made mine years ago out. only took a few minutes. Works great tho

VE7RZ

"KZ3AB" <KZ3AB@ARRL.net> wrote in message
news:vaOdnRgMlfBLbKrdRVn-jw@comcast.com...
> Check out <http://www.ezhang.com>.
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.592 / Virus Database: 375 - Release Date: 2/18/2004

2998. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 19:07:46 UTC
From: richardharrison@webtv.net
Message-ID: <1904-4038FE02-90@storefull-3258.bay.webtv.net>
Source record: 99469

Dave Shrader wrote:
"Help me understand what you are trying to say."

I`ll elaborate.

Efficiency is output / input.

1/2 or more of the power received by a receiving antenna is re-radiated.

Nearly all of the power received by a transmitting antenna is transmitted.

Considering the energy available to the antenna, the job done by the transmitting antenna system as compared with the job done by the receiving antenna system, the transmitting system is better.

A receiving antenna must be resonant to enable full acceptance of available energy, and it must be matched to avoid re-radiation of more than 50% of the energy it is able to grab.
If off-resonance, the receiving antenna has too-high impedance for significant induced current. Of course, we have such good receivers we can do without good efficiency.

A transmitting antenna will radiate energy proportional to the current in the antenna.

Ronold W.P. King says in "Transmission Lines, Antennas, and Wave Guides":

"---the power (Io squared)(Ro) supplied to a highly conducting antenna (of Copper), with Ro taken from the curves of Sec. 10, is for practical purposes all radiated to the more or less closely coupled universe outside the antenna, while that used in heating the antenna itself is negligible." This information is on page 113.

Inefficiency is to be found elsewhere from the transmitting antenna itself. We may use inefficient transmission lines and our wave generator, the transmitter, may be inefficient. We usually try to keep their losses low.

It is not uncommon to produce RF in a Class C amplifier with an efficiency of 70%. With reasonable lines and antennas, nearly 100% of this power output can be radiated, producing appropriate millivolts per meter at one mile from the antenna.

This is not completely reversible due to re-radiation of 1/2 or more of all the power a receiving antenna can grab.

The hope for point to point wireless power transmission is in using antennas like large dishes, for example, which concentrate power within such a small angle that the receiving antenna captures all the transmitted beam. Similarly, all re-radiated power is beamed back to the transmitting antenna for another trip to the receiver.

Best regards, Richard Harrison, KB5WZI

2999. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 19:35:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7g0i305tj519g5ujrfsopbakg2qmg0ku0a@4ax.com>
Source record: 99470

On Sun, 22 Feb 2004 13:07:46 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:
>Efficiency is output / input.
>
>1/2 or more of the power received by a receiving antenna is re-radiated.
>
>Nearly all of the power received by a transmitting antenna is
>transmitted.
>
>Considering the energy available to the antenna, the job done by the
>transmitting antenna system as compared with the job done by the
>receiving antenna system, the transmitting system is better.
>
Hi All,

This is because of a shift in the perception of efficiency. To the transmitter ALL of matched power is irrevocably lost and to the perception of transmission wholly in-efficient (absolutely no transfer of power has been engaged to any mechanical benefit). Radiation Resistance is as lossy as any resistor, sans the caloric benefit of work.

From the point of view of the wave impinging upon an antenna, only half the power is irrevocably lost, half survives (in a Zeno's paradoxical fashion). Again, absolutely no mechanical benefit is derived except for a incredibly minute caloric gain (unless you test your antennas inside a microwave oven) but this does invert the expectation (some work has been accomplished).

Given efficiency is too often stated in terms of mechanical theory (adiabatics and such) and then duct-taped to other disciplines (notable through the egregiously wild claims of fantasy laws of conservation) it is no surprise that other paradoxes emerge.

73's
Richard Clark, KB7QHC

3000. Re: Rhombic for 80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 19:35:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40390567$1_2@corp.newsgroups.com>
Source record: 99471

Dan Yemiola wrote:
> Imagine one antenna" main lobe oriented to Africa, another antenna's main
> lobe oriented to Europe.
> would there be a quick way to reverse these antennas main lobe directions
> (180 degree reciprocal), from my shack?

I realize that this observation may not be exactly what you want to hear,
but if you leave off the termination resistors, the Rhombic will be
naturally bi-directional. (Swapping the feedpoints and terminations will
reverse the main lobes but that may be more than you want to bother with.)

Which makes me wonder if anyone has ever located the transmitter in the
physical center of the Rhombic? On the ground, of course.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3001. Help with balanced tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 19:45:50 UTC
From: ralphy <k4ffa@comcast.net>
Message-ID: <j6SdnRM86Z5Xm6TdRVn-sQ@comcast.com>
Source record: 99472

I am in the process of building a balanced tuner, 2 rollers and capacitor,
I am looking for 2 pulleys and belt to connect the rollers together.

Can anyone point me in the right direction to who might carry these items?
I have searched google and only came up with only 2 companies that might
carry?

Please reply to me off news group.

thanks in advance

Phillip KB4I

3002. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 19:55:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40390a11_2@corp.newsgroups.com>
Source record: 99473

Richard Harrison wrote:
> 1/2 or more of the power received by a receiving antenna is re-radiated.
>
> Nearly all of the power received by a transmitting antenna is
> transmitted.

Expanding a bit to make the receiving and transmitting systems symmetrical with respect to power: If the transmitter is linear (like the antenna is linear), i.e. Class-A, 1/2 or more of the generated power will be lost in the source. In a linear resonant system, about 1/2 of the power sourced reaches the antenna and about 1/2 of the received power makes it to the receiver. It's the old maximum power transfer theorem at work.

> A receiving antenna must be resonant to enable full acceptance of
> available energy, and it must be matched to avoid re-radiation of more
> than 50% of the energy it is able to grab.
> If off-resonance, the receiving antenna has too-high impedance for
> significant induced current. Of course, we have such good receivers we
> can do without good efficiency.

A properly tuned antenna tuner ensures that the *antenna system* is resonant for both transmit and receive (assuming the receiver's input impedance is the same as the transmitter's output impedance). Note that an off-resonant antenna *wire* is integrated into a resonant antenna *system* through the use of an antenna tuner. Chapter 7 in _Reflections_II_ explains how even though it might better have been titled, "My Transmatch Really Does Tune My Antenna" *SYSTEM*.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3003. Re: Rhombic for 80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 19:55:27 UTC
From: richardharrison@webtv.net
Message-ID: <27307-4039092F-187@storefull-3254.bay.webtv.net>
Source record: 99474

Dan Yemiola wrote:
"Can anyone point me to info on the design, building, care, and feeding of Rhombics?"

The "ARRL Antenna Book" (My 19th edition has pretty good coverage and othe editions also have good rhombic coverage.), "Radio Antenna Engineering" by E.A. Laport, "Antennas" by John D. Kraus, "Transmission Lines, Antennas, and Wave Guides" by King, Mimno, and Wing, "Electronic and Radio Engineering" by F.E. Terman, and "Radio Engineering Handbook" edited by Keith Henney (The antennas are by E.A. Laport), and the list goes on.

Best regards, Richard Harrison, KB5WZI

3004. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 20:46:54 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <403917eb_1@news1.prserv.net>
Source record: 99476

Dave:

From that description, I suspect you are going to find all the bolt holes in the tubing elongated from torque. We usually drill slightly oversize holes for our fasteners, but in this high stress application, the holes should start undersize so the fasteners have to be driven in and are tight from the get-go. Also, it is necessary to select fasteners which do not have threads where they pass through the walls of the tubes. This is often the most difficult challenge.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Dave Head" <rally2xs@att.net> wrote in message
news:s1eg30h1sruncei5jecevs5rdtbq2pjut5@4ax.com...

<snip>>
> It could be the masting, tho. I have a 3: diameter piece that goes into
the
> rotator and is "pinned" there by a bolt, as well as clamped, then it goes
to a
> "jackshaft" that is a smaller, about 4' length of 1 3/4" stainless steel
with 1
> or 2 1/4" bolts thru it. That goes thru the 1 3/4" top section collar,
then a
> 3" heavy aluminum mast slips over the stainless jackshaft and is secured
with 2
> quarter-inch bolts. There's probably some play in the bolts, but I don't
think
> there's that much. Mounting bolts on the bottom of the rotator - I think
those
> may be loose.
>
> Thanks for the info.
>
> Dave Head
>
> Dave
>

3005. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 20:50:22 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402221250.25cd3cef@posting.google.com>
Source record: 99475

David
I sent a private E mail to you and then reponded to your post.
I have no idea what happened to the former and the latter seems to
have disappeared so this response is short in the hope that the other
post surfaces.
Now. The normal dipole is usually of low Q i.e. frequency span between
the 2:1
points So starting at the point of energy input the antenna receives
at the very least all the signals between the 2:1 points of which only
one of these signals
meets my requirements i.e to do work as you phrased it. Now we have
another dipole that has a high Q and a fully resistive input
inpedance. NOW LOOKING PURELY AT THE ANTENNA PORTION ALONE (ignoring
energy losses that insertion losses of equipment require because of
what the dipole dumped on the system)i.e. output versus input or as
you put it.Usefull energy from that supplied
I pose the question because I do not like the beginning position of
your posting
that referred to a infitesimal thin dipole as a means of bypassing the
many
individual resistances that go towards the making of a radiator, all
of which
do not vary at a linear rate of change with respect to wavelength of
dipole
used. Please ignore multiple impedance changes of signals that are
received but not required because of the past controversy of how many
signals are travelling at the same time,their individual phases and
the different directions they may be travelling...Let us keep this
interaction between us as simple as possible.
Would you please supply the relative efficiences of these two dipoles
to ensure that all understand the parameters of what you term as
efficiency such that the starting blocks of this discussion are at the
same line.
I am hoping to show how important 'Q" is to this subject which seems
to be ignored by so many.
Regards
Art

Dave Shrader <david.shrader@comcast.net> wrote in message
news:<O6UZb.378596$na.568763@attbi_s04>...
> Good evening Art, I have a few minutes to put some thoughts on email
> regarding efficiency per unit length of an antenna, or antenna elements.
> I hope I don't glaze your eyes :-)
>

> Efficiency by definition is work delivered to a load divided by the
> total work available.
>
> The work [power] delivered to the load is the work available minus
> losses all divided by work available. Your car engine may have 100
> horsepower available but losses [heat] in the transmission, drive shaft,
> differential, oils, fluids, bearings, tires and wheels may limit
> horsepower delivered to the road to 30 horsepower. In this model then
> the efficiency is 30%.
>
> Note: bandwidth is not a factor. It is total work[power] delivered
> divided by total work[power] available.
>
> For an antenna the following definition is applicable by similarity:
>
> Efficiency = Radiated Power/Total power. By definition an antenna is a
> linear device and the Principle of Reciprocity is applicable. That is,
> it has the same efficiency either transmitting or receiving.
>
> Now, total power = I^2*Reffective
>
> Reffective = Radiation Resistance [Rradiation] + Loss Resistance.
>
> Radiated Power = I^2*Rradiation.
>
> Where I = Io*cos[wt + b]. Where wt = frequency, b = phase shift along
> antenna element.
>
> By definition radiation resistance is that determined by integrating the
> total radiated power over the surface of the sphere containing that
> power. [1] For a half wave dipole that converges to the value at a
> current maximum. So, radiation resistance for a 1/2 wave infinitely thin
> dipole is 73 ohms at the current maximum.[1]
>
> As one moves away from the current maximum the radiation resistance
> increases as 1/cosine(angle from the maximum)^2 i.e. 1/cos^2[theta].[2]
>
> Now, in a uniform cross section antenna the Loss Resistance per unit
> length is constant.
>
> So, the Radiation Resistance at the ends of the antenna is infinite.
> [Cosine 90 degrees = 0] That means the efficiency at the ends of a 1/2
> wavelength dipole is 100%. Isn't that a surprise?? [It's the same for a
> dipole or a Yagi!!!!]
>
> The Radiation Resistance at the 45 degree point from the current maximum
> of a thin 1/2 wavelength dipole is 73 ohms/(cos^2(45 degrees)) = 146 Ohms.
>
> The conclusion is that the efficiency of an antenna element varies along
> it's length and can vary between maximum of infinity at the ends and

> have a minimum value, that depends on the length of the antenna, at a
> current maximum.
>
> The total antenna efficiency is measured in the radiated pattern by
> integrating the power density per square steradian [or square degrees]
> over the full surface of a sphere divided by the power into the antenna.
>
> So, a Yagi with 8.14 dBi (6 dBd + 2.14 dBi) gain has concentrated it's
> radiated power into 15.38% of the three dimensional space defined by the
> surface of a sphere. [See Note 1.] Now if the Yagi is 95 % efficient and
> a dipole is 95% efficient the 6 dBd value remains constant.
>
> _____________
> Note 1 [I'm using degrees instead of steradians to simplify
> understanding. The Science/math is the same]
>
> The diameter of the earth is 360 degrees as measured from E-W and N-S.
> The surface is then proportional to 360^2 = 129600 square degrees. [I
> will be dividing the constant Pi in a subsequent step so it is deleted
> here.]
>
> A 6 dBd Yagi is also +2.14 dBi giving a net gain of 8.14 dBi. This
> normalizes the value to a sphere.
>
> So, 8.14 dBi = 10*Log(129600/X)
> X = 19938.4 square degrees.
>
> The Yagi has concentrated it's pattern into a piece of the surface of
> the sphere that represents 15.38% of the total surface [19938.4/129600].
> This is Gain NOT efficiency.
>
> _____________
> Reference [1]: Antennas, Kraus, McGraw-Hill 1950, Chapter 5, section
> 5-6, pages 143-146.
>
> Reference [2]: Antennas, Kraus, McGraw-Hill 1950, Chapter 5, section
> 5-7, pages 147-148.

3006. Homebrew Ventenna - Spec's Wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 21:37:00 UTC
From: Macman <golf4pints@hotmail.com>
Message-ID: <8aOdnZxzIaBmvaTdRVn-ug@comcast.com>
Source record: 99477

I'm searching for the components/spec's to homebrew one of these.
I would like to build it for 2m/70cm bands.

Any links or suggestions would be greatly appreciated.

Thanks . . .

3007. Re: Rhombic for 80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 21:42:35 UTC
From: Hans <pa3cny@thuis.org>
Message-ID: <c1b7ob$1dbq5o$1@ID-186127.news.uni-berlin.de>
Source record: 99478

Dan Yemiola wrote:
> Several related questions about Rhombics
>
> Can any one point me to info on the design, building, care and feeding of
> Rhombics?
>
> Real estate is not a problem here, but I would like to have the feed points
> for the antennas located close to my transmitter to keep feed lines short.
> Can any one point me to mutual interference info on building two or more
> 80/40/20m Rhombics in close proximity to each other?
>
>
> Imagine one antenna" main lobe oriented to Africa, another antenna's main
> lobe oriented to Europe.
> would there be a quick way to reverse these antennas main lobe directions
> (180 degree reciprocal), from my shack?
>
> --
> Prokaryotes organize!
> Support the Eukaryotic Revolution!
> You have nothing to lose but your Anaerobic Chains!
> Nuclei, Mitochondria, DNA!
>
>
no doubt you have already found this url of a ham who also does not have
real estate problems and a rhombic farm?
http://www.angelfire.com/tx5/wieser/rhombic.htm

Hans

3008. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 22:34:02 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <u7a_b.14921$W74.401@newsread1.news.atl.earthlink.net>
Source record: 99479
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

Diego:

You cannot do *exactly* what you propose, but you can get arbitrarily close to it.

The "closeness" being a function of the cost you are prepared to pay.

The closer you want to get to the desired function [curve] of impedance versus
frequency, the more the cost [cost = total number of R-L-C elements in the design].

Basically what you are trying to doe is very well known in the network synthesis
literature as driving point impedance [DPI] synthesis. [e.g. Darlington's method and other similar techniques. Darlngton's technique approaches the problem of DPI as the synthesis of a lossless two port terminated in an appropriate single resistance.]

Network synthesis was widely researched, studied and taught back in the 1940 - 1970 era but... today it is seldom seen, used, or taught. There are however lots of older textbooks which cover this field in great depth.

I'll post a few such references here below for your reference.

Before you can actually perform the DPI synthesis you will first have to find an appropriate rational polynomial function, to form the basis for your synthesis, which approximates the impedance function [curve] you desire to match. To obtain such a rational polynomial you will have to solve an appropriate approximation problem.

Approximation theory and the techniques for doing this with rational polynomial
are a whole 'nother problem, and other than a few simple graphical straight line
segment tricks, will usually require the use of a computer with an appropriate
algorithm, such as Remez second method, which you may have to write yourself!

Unless you can find consultant to help you... :-)

Check out the following classic texts on network synthesis for a complete run down on what you need to do to accomplish your objective:

1.) Ernst A. Guillemin, "Synthesis of Passive Networks", John Wiley & Sons, NY, 1957. [LC# 57-8886. On technical library shelves at LCShelf

Call # TK3226.G84. See Chapters 3, 4, 9, 10 which cover the DPI synthesis in detail, and Chapter 14 which covers the approximation problem.]

2.) Norman Balabanian, "Network Syntheis" Prentice-Hall, Englewood Cliffs, NJ 1958. [LC# 58-11650. On technical library shelves at LCC Shelf Call # TK3226.B26. See Chapters 2 & 3 for DPI and Chapter 9 for the approximation problem.]

3.) Louis Weinberg, "Network Analysis and Synthesis", McGraw-Hill, New York, 1962. [LC# 61-16969. On technical library shelves at LC Shelf Call # TK3226.W395. See Chapter's 9 & 10 for DPI synthesis and Chapter 11 for the approximation problem]

One does not have to realize such designs with purely passive RLC networks and, in appropriate frequency ranges, they can often be synthesized with active RC networks [R, C and Op-Amps] by appropriate transformations of the passive synthesis results.

See for instance...

4.) Adel S. Sedra and Peter O. Brackett, "Filter Theory and Design: Active and Passive", Matrix Publishers, Portland, OR, 1978. [LC # 76-39745. On technical library shelves at LCC Shelf Call # TK7872.F5S42.]

Also, and I have done this myself a couple of times for special low frequency
applications, one can match the analog driving point impedance through an appropriate Op-Amp reflectometer circuit to a combination analog to digital A/D and digital to analog converter D/A and perform/emulate the DPI synthesis in real time using digital signal procssing [DSP] techniques. Basically to use the A/D - D/A digital technique to emulate the desired DPI you will have to solve the same synthesis and approximation problems mentioned above but under a suitable *warping* of the real frequency
axis.

Hope that all helps... and good luck

:-)

--
Peter K1PO
Consultant - Signal Processing and Analog Electronics
Indialantic By-the-Sea, FL

"Diego Stutzer" <abcdstutzer@evard.ch> wrote in message news:aca3ec4c.0402190229.7977e8c6@posting.google.com...
> Hi,
> Every one knows, that e.g. a simple RC-parallel circuit has a
> frequency-dependent impedance-characteristic (Absolute Value) - the
> impedance (Abs) raises as the Frequency approaches zero. As a formula:
Zin

> = 1/(1/R + i w C) , where i ist the imaginary number and w the frequency.
>
> Now the hard part. How does one create an Impedance, which decreases
> "slower", for frequencies close to zero but then decreases "faster" for
> higher frequencies, than the simple parallel RC-Circuit?
> Is there some kind of procedure like the one for syntesizeing LC-Filters
> (Butterworth, Chebychev,..)?
>
> Simply increasing C does not really help, because this equals a factoring
of
> the frequency.
> Increasing R does not help as well, as it seems.
>
>
> I hope one of you cracks can help me out.
> So far, thanks for reading.
> Diego Stutzer

"Diego Stutzer" <abcdstutzer@evard.ch> wrote in message
news:aca3ec4c.0402190230.bb2d1cf@posting.google.com...
> Hi,
> Every one knows, that e.g. a simple RC-parallel circuit has a
> frequency-dependent impedance-characteristic (Absolute Value) - the
> impedance (Abs) raises as the Frequency approaches zero. As a formula:
Zin
> = 1/(1/R + i w C) , where i ist the imaginary number and w the frequency.
>
> Now the hard part. How does one create an Impedance, which decreases
> "slower", for frequencies close to zero but then decreases "faster" for
> higher frequencies, than the simple parallel RC-Circuit?
> Is there some kind of procedure like the one for syntesizeing LC-Filters
> (Butterworth, Chebychev,..)?
>
> Simply increasing C does not really help, because this equals a factoring
of
> the frequency.
> Increasing R does not help as well, as it seems.
>
>
> I hope one of you cracks can help me out.
> So far, thanks for reading.
> Diego Stutzer

3009. e

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 22:51:51 UTC
From: sucker <sucker@mail.subrec.org>
Message-ID: <boa_b.3766$Hg4.2078@chiapp18.algx.net>
Source record: 99480

sucker@mail.subrec.org

3010. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 22:57:28 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <dkci30dfea5igau12tt28edccruo6mfg09@4ax.com>
Source record: 99481
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

On Sun, 22 Feb 2004 22:34:02 GMT, "Peter O. Brackett"
<no_such_address@ix.netcom.com> wrote:

[snip]
>Network synthesis was widely researched, studied and taught back in the
>1940 - 1970 era but... today it is seldom seen, used, or taught. There are
>however lots of older textbooks which cover this field in great depth.
>
[snip]
>1.) Ernst A. Guillemin, "Synthesis of Passive Networks", John Wiley & Sons,
>NY, 1957. [LC# 57-8886. On technical library shelves at LCShelf
>Call # TK3226.G84. See Chapters 3, 4, 9, 10 which cover the DPI synthesis
>in detail, and Chapter 14 which covers the approximation problem.]
>
>2.) Norman Balabanian, "Network Syntheis" Prentice-Hall, Englewood
>Cliffs, NJ 1958. [LC# 58-11650. On technical library shelves at LCC
>Shelf Call # TK3226.B26. See Chapters 2 & 3 for DPI and Chapter
>9 for the approximation problem.]
>
>3.) Louis Weinberg, "Network Analysis and Synthesis", McGraw-Hill,
>New York, 1962. [LC# 61-16969. On technical library shelves at
>LC Shelf Call # TK3226.W395. See Chapter's 9 & 10 for DPI
>synthesis and Chapter 11 for the approximation problem]
>
>One does not have to realize such designs with purely passive RLC
>networks and, in appropriate frequency ranges, they can often be
>synthesized with active RC networks [R, C and Op-Amps] by
>appropriate transformations of the passive synthesis results.
>
>See for instance...
>
>4.) Adel S. Sedra and Peter O. Brackett, "Filter Theory and Design:
>Active and Passive", Matrix Publishers, Portland, OR, 1978. [LC #
>76-39745. On technical library shelves at LCC Shelf Call #
>TK7872.F5S42.]
>
[snip]

Gawwwwd! You list makes me feel really old. Not only do I recognize
all your references, I knew "Ernie" personally... but I had Harry B.
Lee as my instructor, since I was in VI-B.

...Jim Thompson
--

James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

3011. INFO WANTED on Vertical Dipole Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 23:08:06 UTC
From: rfpexec@yahoo.com
Message-ID: <676011a0.0402221508.329c6fae@posting.google.com>
Source record: 99483

I am looking for a good soource of information of Vertical Dipole
antennas. If you know of a good book or web site please email me.

Thanks,
Bill
= = = = = = =

Check our NEW EUROPEAN GLAMOUR photos

Click on this link: http://RoyaltyFreePhotos.com
Then do a search for: GLAMOUR
****
****

3012. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 23:08:58 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <dEa_b.382796$na.573472@attbi_s04>
Source record: 99484

Art, I need further definitions of terms from you.

You mention a High Q antenna. In the standard definition of High Q is the direct implication of Low Resistance.

If an ideal antenna has zero resistance then it's efficiency is by definition 100%.

Now, if you don't mean Q in the classical sense, but you are inferring that 2:1 VSWR bandwidth, for example, establishes 'q' then a further definition is required.

Remember resonant antennas have efficiency defined at the resonant frequency. Once there is a deviation from that frequency the radiation resistance of the antenna changes from a non-complex value, R + j0, to a complex impedance, R +/- jX.

Off resonance the resonant efficiency, (Rr)/(Rr + Rl) is further modified by the square of the normalized reactance in the Radiation Impedance of the antenna and the square of the normalized reactance in the transmission line at the match point. [1 + X1^2]/[1 + X2^2]

So, efficiency off resonance = efficiency at resonance*[[1+X1^2]/[1+X2^2]].

If the efficiency at resonance is 95 % and the antenna impedance changes from 70 ohms to 65 + j10 [X1] and the feedline now has 50 + j10 [X2] then the efficiency off resonance = 95%*[[1+[10/70]^2]/[1 + [10/50]^2]].

So, for the case at point the 95% efficient antenna, at resonance, would be 0.95*0.98 = 93.2% off resonance. That equates to a reduction in received signal of 0.14 dB.

The addition of a tuner brings everything back to resonance and the efficiency is redefined by the losses in the tuner and VSWR losses in the transmission line.

This is the limit of my systems engineering application of antenna theory. If you need more then ask the Gurus.

So, in answer to your question, the change in efficiency is a function of how much reactance is introduced when the antenna is used off resonant frequency. IMO, the efficiency at resonance is the same. The efficiency off frequency decreases as VSWR increases in either antenna. The reduction in efficiency is more rapid in antennas with narrow VSWR bandwidth. The addition of a tuner restores much of the loss of efficiency.

Deacon Dave, W1MCE

Art Unwin KB9MZ wrote:
SNIP

> Would you please supply the relative efficiences of these two dipoles
> to ensure that all understand the parameters of what you term as
> efficiency such that the starting blocks of this discussion are at the
> same line.
> I am hoping to show how important 'Q" is to this subject which seems
> to be ignored by so many.
> Regards
> Art
>

3013. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-22 23:55:08 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <wjb_b.16323$hm4.8797@newsread3.news.atl.earthlink.net>
Source record: 99485
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

Jim:

[snip]
> Gawwwwd! You list makes me feel really old. Not only do I recognize
> all your references, I knew "Ernie" personally... but I had Harry B.
> Lee as my instructor, since I was in VI-B.
>
> ...Jim Thompson
[snip]

Heh, heh... No one could "splain" driving point synthesis like "Ernie".

But... Time moves on...

Y. W. Lee, I have met, Harry B. Lee?

I never had the pleasure.

Best Regards,

--
Peter K1PO
Consultant - Signal Processing and Analog Electronics
Indialantic By-the-Sea, FL.

"Jim Thompson" <thegreatone@example.com> wrote in message
news:dkci30dfea5igau12tt28edccruo6mfg09@4ax.com...
> On Sun, 22 Feb 2004 22:34:02 GMT, "Peter O. Brackett"
> <no_such_address@ix.netcom.com> wrote:
>
> [snip]
> >Network synthesis was widely researched, studied and taught back in the
> >1940 - 1970 era but... today it is seldom seen, used, or taught. There
are
> >however lots of older textbooks which cover this field in great depth.
> >
> [snip]
> >1.) Ernst A. Guillemin, "Synthesis of Passive Networks", John Wiley &
Sons,
> >NY, 1957. [LC# 57-8886. On technical library shelves at LCShelf
> >Call # TK3226.G84. See Chapters 3, 4, 9, 10 which cover the DPI
synthesis
> >in detail, and Chapter 14 which covers the approximation problem.]
> >
> >2.) Norman Balabanian, "Network Syntheis" Prentice-Hall, Englewood
> >Cliffs, NJ 1958. [LC# 58-11650. On technical library shelves at LCC

> >Shelf Call # TK3226.B26. See Chapters 2 & 3 for DPI and Chapter
> >9 for the approximation problem.]
> >
> >3.) Louis Weinberg, "Network Analysis and Synthesis", McGraw-Hill,
> >New York, 1962. [LC# 61-16969. On technical library shelves at
> >LC Shelf Call # TK3226.W395. See Chapter's 9 & 10 for DPI
> >synthesis and Chapter 11 for the approximation problem]
> >
> >One does not have to realize such designs with purely passive RLC
> >networks and, in appropriate frequency ranges, they can often be
> >synthesized with active RC networks [R, C and Op-Amps] by
> >appropriate transformations of the passive synthesis results.
> >
> >See for instance...
> >
> >4.) Adel S. Sedra and Peter O. Brackett, "Filter Theory and Design:
> >Active and Passive", Matrix Publishers, Portland, OR, 1978. [LC #
> >76-39745. On technical library shelves at LCC Shelf Call #
> >TK7872.F5S42.]
> >
> [snip]
>
> --
> | James E.Thompson, P.E. | mens |
> | Analog Innovations, Inc. | et |
> | Analog/Mixed-Signal ASIC's and Discrete Systems | manus |
> | Phoenix, Arizona Voice:(480)460-2350 | |
> | E-mail Address at Website Fax:(480)460-2142 | Brass Rat |
> | http://www.analog-innovations.com | 1962 |
>
> I love to cook with wine. Sometimes I even put it in the food.

3014. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 00:04:15 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <jigi30h0ubar2j6grvh0kfs8pmd364di43@4ax.com>
Source record: 99486
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

On Sun, 22 Feb 2004 23:55:08 GMT, "Peter O. Brackett"
<no_such_address@ix.netcom.com> wrote:

>Jim:
>
[snip]
>
>Y. W. Lee, I have met, Harry B. Lee?
>
>I never had the pleasure.
>

Think War of Independence, this guy was a descendent of "Light-Horse"
Harry Lee ;-)

Harry B. Lee was, IMNSHO, better than Ernie. Everything Ernie did was
1H, 1F and 1 ohm... Harry was a realist, and I still have my notes...
I don't think anyone could have taught nodal and loop analysis better;
which is why I attack IC design in that fashion.

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

3015. Re: For Sale: Wire Antenna Tool

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 00:08:28 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <40394420.89899DA0@shaw.ca>
Source record: 99487

Trace Klassen wrote:
>
> I cant believe peaple will pay 89 bux for a slingshot and reel. Wow I am in
> the wrong line of work :P
>
> I made mine years ago out. only took a few minutes. Works great tho
>
> VE7RZ
>
You should see what some will pay for a dipole!

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3016. Re: Help with balanced tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 00:15:26 UTC
From: "T.E.O" <rfmscpa@earthlink.net>
Message-ID: <yCb_b.5433$aT1.4688@newsread1.news.pas.earthlink.net>
Source record: 99488

To eliminate the pulleys & belt configure the rollers in tandem. Use a shaft coupler to connect the shafts.

"ralphy" <k4ffa@comcast.net> wrote in message news:j6SdnRM86Z5Xm6TdRVn-sQ@comcast.com...
> I am in the process of building a balanced tuner, 2 rollers and capacitor,
> I am looking for 2 pulleys and belt to connect the rollers together.
>
> Can anyone point me in the right direction to who might carry these items?
> I have searched google and only came up with only 2 companies that might
> carry?
>
> Please reply to me off news group.
>
> thanks in advance
>
> Phillip KB4I
>
>

3017. Re: Message from QRZ.com founder

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 01:06:24 UTC
From: Rich <me@thisisnotarealaddress.com>
Message-ID: <acki30deeii7r0vnc9tsq6mrt6r45d0qc2@4ax.com>
Source record: 99489

hallelujah! its about time!

73,
rich, n9dko

>
>Founder, QRZ.COM
>
>Group: Super Administrators
>Posts: 126
>Joined: Dec. 1969
>
> Posted: Feb. 05 2004,17:48
>Upon looking at the responses to some of our latest postings, I have to agree
>with some users who've recently commented that QRZ seems to be stuck in a mire
>of name calling, rudeness, disrespect, intolerance and insensitivity. It seems
>that lately, every argument or discussion leads to a debate about CW,
>comparisons to CB'ers and a lamenting about "the way things were way back when...
>". It becomes particularly ironic when people use this forum to rudely complain
>that certain licensing proposals will dumb down amateur radio and turn it into a
>channel 19 free-for-all reminiscent of Smokey and the Bandit. Can you see where
>I'm going with this?
>
>The QRZ staff has, as of late, deleted several dozen postings and has removed
>user access privileges for a few individuals based in part upon their repeated
>abuses of the system and its members. Although it may seem apparent to some, I
>feel now would be a good time to reiterate our position on basic civility and
>personal conduct that is expected of all users on this system.
>
>Let's look at some of the basics:
>
>Ad hominem attacks are strictly prohibited.
>What is an 'ad hominem' attack? The phrase 'ad hominem' is latin and it means,
>literally, 'against the person' (Look it up on Google). What this means to QRZ
>users is that as a reader and poster, you are free to write and disagree with
>anyone's postings or articles but under no circumstances may you attack the
>person that you disagree with. It's all about personal respect and dignity,
>something that everyone deserves at some level. In other words, you can remark
>that a particular position makes no sense but you can't say that the person
>writing it is an idiot!
>
>Sexisim, Racisim, and Homophobia are Not Allowed
>A recent posting by a female ham was met with a reply that suggested something
>along the lines of "women should stick to raising babies and washing clothes...".
> While some people might feel that such remarks are nothing but free speech

>opinions, they are nonetheless unacceptable at QRZ. The same holds true for
>any remarks about race and/or sexual orientation. The bottom line on these
>subjects is the time honored "keep it to yourself" principle. Those who feel
>like being naughty and engaging in such postings will quickly see how if feels
>to be ostracised from the rest of the group.
>
>The QRZ Editors and Moderators have the Final Word
>Don't try and appeal the decisions made by our Editors and Moderators. You have
>no right to free speech here. Your thoughts and opinions appear on the QRZ
>website at our pleasure. Once you post something here, you no longer own it and
>we can reproduce it, or not, in any manner that we see fit. We can and will
>censor articles as we choose. This doesn't mean that we condone or share any
>opinion that is posted here, nor does it mean that any failure or delay on our
>part to censor something constitutes our approval of any kind. We do our best
>to keep the site running cleanly with a friendly, open atmosphere but frankly,
>it's no small task. With 100's of new postings every day it can be difficult
>for our moderators to stay up to date with the latest rants and raves.
>
>Improper postings will be deleted without notice.
>Don't expect to be notified when we remove something that you posted here. We
>usually don't have the time to explain that your posting was rude, offensive,
>out of context or just plain stupid. It should be apparent as to which types
>of comments are considered civilized and so if you're stuff is getting deleted
>often then perhaps it's time for you to take a good look at your approach to
>communications in general. We're not going to tell you that you're an ass,
>we'll leave that up to you to figure out.
>
>Anonymous Users get the Least Consideration
>When we're making editorial judgement calls on what should and should not be
>allowed on the system, we automatically cast a jaded eye on postings from people
>who register and post anonymously. It should come as no surprise that some of
>the worst abusers that we've ever had never registered with a call sign or any
>tracable identity. This author feels that comments made by a users having
>anonymous or fictitous names have little more value than bathroom wall graffiti.
> Few if any second chances are ever given to anonymous users.
>
>Code vs. No-Code
>We're all getting tired of this endless debate. I haven't seen a fresh idea on
>the subject in many months, perhaps years, of operating QRZ. It doesn't matter
>what you say regarding the issue, it's been said before and been rebutted before.
> The majority of the free world has already decided the issue and there isn't a
>snowball's chance that we're not going to join with them. We should all just
>get used to the idea and move on. There are other fish to fry. Let's try a
>fresh one!
>
>How to Tell if your QRZ Account is on the Skids
>Your QRZ account might be in trouble if:
>
># Your postings never seem to stay online very long
># You see the message "Your posting permissions have been removed".

># You find yourself becoming increasingly involved in heated, off-line email
>exchanges with other QRZ users.
># A QRZ editor or moderator issues you a warning that you choose to argue over.
># The QRZ editors stop answering your emails altogether
># The people at eHam.net have banned you as well.
># Your name keeps popping up on the 80 ragchew nets
># It feels to you like everybody on QRZ is an idiot and that you're the only
>sane person around
># You're getting fired from your job after your boss catches you filing a
>ranting diatribe on QRZ about "The Elimination of CW" on the company computer.
># You threaten QRZ with legal action over your free speech rights.
>
>Don't let any of these things happen to you. Now that we have over 200,000
>registered users, we can afford to lose you. In fact, losing you might mean
>that 40 other users don't quit the site in utter disgust.
>
>And finally, one last word about censorship and free speech. As I said at the
>beginning of this article, your arguments for and against the discussion topics
>presented here are always welcome. Don't ever let it get profane or personal,
>however, and don't forget that almost everybody here has a life outside of ham
>radio. Use yours wisely and have fun (but not at someone else's expense)!
>
>Fred Lloyd, AA7BQ
>
>--------------
>---
>Fred Lloyd, AA7BQ Founder, QRZ.COM

3018. Re: Message from QRZ.com founder

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 01:15:24 UTC
From: spam@spam.com
Message-ID: <403953b1.650062@news.east.cox.net>
Source record: 99490

Wow! Respect and civility...what a concept. Keep up the good work
QRZ.com!

Mark

--
On 22 Feb 2004 19:00:05 GMT, Jim Nasium <org@net.com> wrote:

>
>Now we can only hope the founders of Eham.net take a hint........
>
>~~~~~~
>
>Founder, QRZ.COM
>
>Group: Super Administrators
>Posts: 126
>Joined: Dec. 1969
>
> Posted: Feb. 05 2004,17:48
>Upon looking at the responses to some of our latest postings, I have to agree
>with some users who've recently commented that QRZ seems to be stuck in a mire
>of name calling, rudeness, disrespect, intolerance and insensitivity. It seems
>that lately, every argument or discussion leads to a debate about CW,
>comparisons to CB'ers and a lamenting about "the way things were way back when...
>". It becomes particularly ironic when people use this forum to rudely complain
>that certain licensing proposals will dumb down amateur radio and turn it into a
>channel 19 free-for-all reminiscent of Smokey and the Bandit. Can you see where
>I'm going with this?
>
>The QRZ staff has, as of late, deleted several dozen postings and has removed
>user access privileges for a few individuals based in part upon their repeated
>abuses of the system and its members. Although it may seem apparent to some, I
>feel now would be a good time to reiterate our position on basic civility and
>personal conduct that is expected of all users on this system.
>
>Let's look at some of the basics:
>
>Ad hominem attacks are strictly prohibited.
>What is an 'ad hominem' attack? The phrase 'ad hominem' is latin and it means,
>literally, 'against the person' (Look it up on Google). What this means to QRZ
>users is that as a reader and poster, you are free to write and disagree with
>anyone's postings or articles but under no circumstances may you attack the
>person that you disagree with. It's all about personal respect and dignity,
>something that everyone deserves at some level. In other words, you can remark

>that a particular position makes no sense but you can't say that the person
>writing it is an idiot!
>
>Sexisim, Racisim, and Homophobia are Not Allowed
>A recent posting by a female ham was met with a reply that suggested something
>along the lines of "women should stick to raising babies and washing clothes...".
> While some people might feel that such remarks are nothing but free speech
>opinions, they are nonetheless unacceptable at QRZ. The same holds true for
>any remarks about race and/or sexual orientation. The bottom line on these
>subjects is the time honored "keep it to yourself" principle. Those who feel
>like being naughty and engaging in such postings will quickly see how if feels
>to be ostracised from the rest of the group.
>
>The QRZ Editors and Moderators have the Final Word
>Don't try and appeal the decisions made by our Editors and Moderators. You have
>no right to free speech here. Your thoughts and opinions appear on the QRZ
>website at our pleasure. Once you post something here, you no longer own it and
>we can reproduce it, or not, in any manner that we see fit. We can and will
>censor articles as we choose. This doesn't mean that we condone or share any
>opinion that is posted here, nor does it mean that any failure or delay on our
>part to censor something constitutes our approval of any kind. We do our best
>to keep the site running cleanly with a friendly, open atmosphere but frankly,
>it's no small task. With 100's of new postings every day it can be difficult
>for our moderators to stay up to date with the latest rants and raves.
>
>Improper postings will be deleted without notice.
>Don't expect to be notified when we remove something that you posted here. We
>usually don't have the time to explain that your posting was rude, offensive,
>out of context or just plain stupid. It should be apparent as to which types
>of comments are considered civilized and so if you're stuff is getting deleted
>often then perhaps it's time for you to take a good look at your approach to
>communications in general. We're not going to tell you that you're an ass,
>we'll leave that up to you to figure out.
>
>Anonymous Users get the Least Consideration
>When we're making editorial judgement calls on what should and should not be
>allowed on the system, we automatically cast a jaded eye on postings from people
>who register and post anonymously. It should come as no surprise that some of
>the worst abusers that we've ever had never registered with a call sign or any
>tracable identity. This author feels that comments made by a users having
>anonymous or fictitous names have little more value than bathroom wall graffiti.
> Few if any second chances are ever given to anonymous users.
>
>Code vs. No-Code
>We're all getting tired of this endless debate. I haven't seen a fresh idea on
>the subject in many months, perhaps years, of operating QRZ. It doesn't matter
>what you say regarding the issue, it's been said before and been rebutted before.
> The majority of the free world has already decided the issue and there isn't a
>snowball's chance that we're not going to join with them. We should all just
>get used to the idea and move on. There are other fish to fry. Let's try a

>fresh one!
>
>How to Tell if your QRZ Account is on the Skids
>Your QRZ account might be in trouble if:
>
># Your postings never seem to stay online very long
># You see the message "Your posting permissions have been removed".
># You find yourself becoming increasingly involved in heated, off-line email
>exchanges with other QRZ users.
># A QRZ editor or moderator issues you a warning that you choose to argue over.
># The QRZ editors stop answering your emails altogether
># The people at eHam.net have banned you as well.
># Your name keeps popping up on the 80 ragchew nets
># It feels to you like everybody on QRZ is an idiot and that you're the only
>sane person around
># You're getting fired from your job after your boss catches you filing a
>ranting diatribe on QRZ about "The Elimination of CW" on the company computer.
># You threaten QRZ with legal action over your free speech rights.
>
>Don't let any of these things happen to you. Now that we have over 200,000
>registered users, we can afford to lose you. In fact, losing you might mean
>that 40 other users don't quit the site in utter disgust.
>
>And finally, one last word about censorship and free speech. As I said at the
>beginning of this article, your arguments for and against the discussion topics
>presented here are always welcome. Don't ever let it get profane or personal,
>however, and don't forget that almost everybody here has a life outside of ham
>radio. Use yours wisely and have fun (but not at someone else's expense)!
>
>Fred Lloyd, AA7BQ
>
>--------------
>--
>Fred Lloyd, AA7BQ Founder, QRZ.COM
>
>
>--
>Ce message a ete poste via la plateforme Web club-Internet.fr
>This message has been posted by the Web platform club-Internet.fr
>
>http://forums.club-internet.fr/

Mark

3019. Re: folding antenna, can it be refolded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 01:33:04 UTC
From: G&R <spam@limbo.hell>
Message-ID: <nLc_b.2187$253.212626@news20.bellglobal.com>
Source record: 99491

I must reply to this question with several answers.

1. If the antenna is designed to be refolded (as ours are, even though some care must be taken) it is no problem.

2. If the antenna is designed to be only unfolded only. It may still be possible, but the risk of damage is significantly greater.

3. In some cases....well once you open it its open unless you break it to fold it :-(

Look at each case and proceed with care.

Good Luck,

Guenther ve3cvs
www.degendesigns.com

"cme" <zcadrian@yahoo.com> wrote in message
news:J-2dndgKmOEI0qvdRVn-sQ@look.ca...
> I was wondering if a antenna is shipped folded and then erected . Can the
> same antenna be refolded without damaging the elements. I have the chance
to
> buy a radioshack vhf/uhf antenna that came folded but dont know if it can
> be refolded without damaging the elements. In other words are they locked
> and you have force them to refold and damage them.
>
>

3020. Re: Designing Frequency-Dependent Impedances?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 02:35:07 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <vFd_b.15344$W74.5995@newsread1.news.atl.earthlink.net>
Source record: 99492
Cross-posted to: sci.electronics.misc,sci.electronics.design,rec.radio.amateur.antenna,alt.radio.pirate

Jim:

[snip]
> Harry B. Lee was, IMNSHO, better than Ernie. Everything Ernie did was
> 1H, 1F and 1 ohm...
[snip]

And of course... "pliers" and "soldering iron"...

[snip]
Harry was a realist, and I still have my notes...
[snip]

As I said, I never had the pleasure, but I'm sure he was a grea teacher...

[snip]
> I don't think anyone could have taught nodal and loop analysis better;
> which is why I attack IC design in that fashion.
[snip]

Hmmm... how about the "Method of False Assumption"?

:-)

--
Peter

3021. Re: Help with balanced tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 02:41:32 UTC
From: "Dan Richardson"
Message-ID: <11qi30hdc8jmijg1v881182nafpl1chh0r@4ax.com>
Source record: 99494

Try Small Parts http://www.smallparts.com/

search for timing pulleys and belts.

73
Danny, K6MHE

On Sun, 22 Feb 2004 13:45:50 -0600, "ralphy" <k4ffa@comcast.net>
wrote:

>I am in the process of building a balanced tuner, 2 rollers and capacitor,
>I am looking for 2 pulleys and belt to connect the rollers together.
>
>Can anyone point me in the right direction to who might carry these items?
>I have searched google and only came up with only 2 companies that might
>carry?
>
>Please reply to me off news group.
>
>thanks in advance
>
>Phillip KB4I
>

3022. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 02:44:10 UTC
From: "Dan Richardson"
Message-ID: <u5qi30h41hipsos59np3nf8urn8e74mqs7@4ax.com>
Source record: 99495

On Sun, 22 Feb 2004 13:07:46 -0600 (CST), richardharrison@webtv.net (Richard Harrison) wrote:

>A receiving antenna must be resonant to enable full acceptance of
>available energy,

Where did you come up with that one?

I suggest you revisit capture area.

Danny, K6MHE

3023. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 02:51:51 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <bVd_b.377983$xy6.2004194@attbi_s02>
Source record: 99493

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:dEa_b.382796$na.573472@attbi_s04...
> Art, I need further definitions of terms from you.
>
> You mention a High Q antenna. In the standard definition of High Q is
> the direct implication of Low Resistance.

Well I think we have a real problem from the start, my antenna
has very high Q (5 Khz on 160 metres) and it has a resistive
impedance of my choosing but I stick with 50 Ohms at the moment.. Thus we
are at an impasse since I can also lower the Q by remote control and still
have the same input impedance.
But I will follow with respect to simple high Q dipoles say 5Khz band width
versus a normal low Q dipole with say a 500 Khz bandwidths. The first for
broadcast at a fixed frequency and the other a typical ham dipole.

>
> If an ideal antenna has zero resistance then it's efficiency is by
> definition 100%.

Ouch , radiation is created by the antics of current...no current no
radiation

>
> Now, if you don't mean Q in the classical sense, but you are inferring
> that 2:1 VSWR bandwidth, for example, establishes 'q' then a further
> definition is required.

O.Kaaaay I think I have I have done that per above
>
> Remember resonant antennas have efficiency defined at the resonant
> frequency. Once there is a deviation from that frequency the radiation
> resistance of the antenna changes from a non-complex value, R + j0, to a
> complex impedance, R +/- jX.

Good I am still with you as I want the efficiency of each where both are at
resonance

>
> Off resonance the resonant efficiency, (Rr)/(Rr + Rl) is further
> modified by the square of the normalized reactance in the Radiation
> Impedance of the antenna and the square of the normalized reactance in
> the transmission line at the match point. [1 + X1^2]/[1 + X2^2]
>
> So, efficiency off resonance = efficiency at
resonance*[[1+X1^2]/[1+X2^2]].

>
> If the efficiency at resonance is 95 % and the antenna impedance changes
> from 70 ohms to 65 + j10 [X1] and the feedline now has 50 + j10 [X2]
> then the efficiency off resonance = 95%*[[1+[10/70]^2]/[1 + [10/50]^2]].
>
> So, for the case at point the 95% efficient antenna, at resonance, would
> be 0.95*0.98 = 93.2% off resonance. That equates to a reduction in
> received signal of 0.14 dB.

>
> The addition of a tuner brings everything back to resonance and the
> efficiency is redefined by the losses in the tuner and VSWR losses in
> the transmission line.
Now we are at the cusp, one of the dipoles is so inefficient that it
had its floodgates open and all the worlds signals poured in.......
very inefficient now I have to waste energy in correcting the situation.
When talking about a radio design it is imperitive that a filter is placed
at the radio signal input this is an insertion loss
because the antenna was inefficient at its job, with a antenna of high Q it
has done a better job, a more efficient job that removes the need for
interfaces. That is where I am coming from
when I refer to a simple dipole as being inefficient.

> This is the limit of my systems engineering application of antenna
> theory. If you need more then ask the Gurus.
>
> So, in answer to your question, the change in efficiency is a function
> of how much reactance is introduced when the antenna is used off
> resonant frequency. IMO, the efficiency at resonance is the same. The
> efficiency off frequency decreases as VSWR increases in either antenna.
> The reduction in efficiency is more rapid in antennas with narrow VSWR
> bandwidth. The addition of a tuner restores much of the loss of
efficiency.

O.K. Dave thanks for giving it a shot, at least it shows just
how much I am out of step with those who have had an education in this field
where I have not. Earlier I pointed out that if maximum radiating current
flow was maintained in a dipole then
the same energy that was disapated by a halfwave dipole would be equal to a
dipole that was only wavelength divided by Pi
(area under the sinosoidal curve compared to area under a constant current
line) thus the migration to radiation efficiency per unit length where the
sinosoidal current was relatively inefficient
and would be even more inefficient when compared to a high current low
voltage energy input

Thanks a bunch for your extra effort
Best regards
Art

>
> Deacon Dave, W1MCE

>
> Art Unwin KB9MZ wrote:
> SNIP
>
> > Would you please supply the relative efficiences of these two dipoles
> > to ensure that all understand the parameters of what you term as
> > efficiency such that the starting blocks of this discussion are at the
> > same line.
> > I am hoping to show how important 'Q" is to this subject which seems
> > to be ignored by so many.
> > Regards
> > Art
> >
>

3024. Re: Rhombic for 80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 03:27:00 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <103iskoirveq384@corp.supernews.com>
Source record: 99496

Dear Dan:
I assume that you have DX in mind. If you just wish enhanced coverage out to 1000 km, there are far better and much less expensive solutions.
There are many references on and about this subject. I am working on the history of, and engineering of, long wire antennas so I have read many of the references - particularly the early references.
In my opinion, the most useful summery of design equations is to be found in the first and second editions of my mentor's book: Antennas (by Kraus). To my surprise, I have not checked the third edition. You should have little difficulty finding a copy of this book.
A second reference is Chapter 4 of the first edition of Antenna Engineering Handbook edited by Jasik. That chapter is written by Laport. However, the table of design equations in Antennas and a calculator may well be the most easy way to perform the design phase. Obviously, using a modeling program will be a big help once the equations get you in the neighborhood.
Most of the other references that are accessible are likely to be too difficult to use because the information is provided on small graphs.

That said, I doubt that a rhombic antenna at 3.5 MHz is cost effective for amateur use. In order to have a take-off-angle of about 20 degrees at 3.5 MHz, you would need to use 200 foot supports (four of them), unless you wish to be compelled to put lights on the towers. At best, you would then have a narrow beam width, which might be positioned to cover much of Europe or, alternatively, only some of Africa. The towers will need to be substantial in order to support the 300 meters, or more, of wire between the towers. The good news is that it will be easy to have the antenna work over the entire band. However, it will require some compromises to have performance at 7 MHz. (Think one octave bandwidth before the pattern lets you down.)
The VOA has at least one huge rhombic that is usable starting at 4 MHz. Rhombics have been used at the lower end of HF. We are fortunate to have one user of this forum who has a lot of experience with rhombics. I am sure that he will have much to contribute.
In the 10 MHz to 30 MHz region, their cost is much lower and a rhombic might serve a specific purpose.

In the days before the yagi and before curtain antennas were popular, the rhombic was a big deal to commercial HF services. The antennas that the rhombic replaced were generally more expensive and often quite narrow band.
Today, if you wish a BIG signal when working 80 meter DX, think one tall tower with a yagi. It will cost less and allow you to tailor the

direction of the main beam.

Do let us know what you end up doing. We will all learn a bit
more.\
73 Mac N8TT
--
J. Mc Laughlin - Michigan USA

"Dan Yemiola" <ai8o@Yahoo.com> wrote in message
news:c1asu2$av2u$1@news3.infoave.net...
> Several related questions about Rhombics
>
> Can any one point me to info on the design, building, care and feeding
of
> Rhombics?
>
> Real estate is not a problem here, but I would like to have the feed
points
> for the antennas located close to my transmitter to keep feed lines
short.
> Can any one point me to mutual interference info on building two or
more
> 80/40/20m Rhombics in close proximity to each other?
>
>
> Imagine one antenna" main lobe oriented to Africa, another antenna's
main
> lobe oriented to Europe.
> would there be a quick way to reverse these antennas main lobe
directions
> (180 degree reciprocal), from my shack?
>
> --

3025. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 03:27:43 UTC
From: richardharrison@webtv.net
Message-ID: <22644-4039732F-101@storefull-3256.bay.webtv.net>
Source record: 99497

Cecil, W5DXP wrote:
"If the transmitter is linear (like the antenna is linear), i.e. Class-A, 1/2 or more of the generated power weill be lost in the source."

True, that would be an equalizer between reception and transmitting system efficiencies of antennas, but Class A isn`t the only way to get linear amplification, Hi-Fi nuts to the contrary not withstanding. Class B is often used to combine efficiency with high undistorted output capability. Class B amplifiers are biased to cut-off so they draw no current when there is no signal input. A class B amplifier may have 60% efficiency at full power output, for example. Such an amplifier will have only about 30% efficiency at 1/2 of its maximum power output.

Turman writes on page 354 of his 1955 edition:

"With the largest signal that the (Class-B) amplifier can be expected to handle satisfactorily, Emin/Eb will be small, and the actual efficiency at full power is commonly of the order of 60%."

The receiving antenna can never be more than 50% efficient due to re-radiation which I don`t seem to be able to explain. Sorry.

Best regards, Richard Harrison, KB5WZI

3026. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 03:58:48 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <tjui30t0v0qe8dd5u1l2j82n3tio0orben@4ax.com>
Source record: 99498

On Sun, 22 Feb 2004 14:46:54 -0600, "Crazy George" <muNnscOh@attSglPobaAl.nMet>
wrote:

>Dave:
>
>From that description, I suspect you are going to find all the bolt holes in
>the tubing elongated from torque. We usually drill slightly oversize holes
>for our fasteners, but in this high stress application, the holes should
>start undersize so the fasteners have to be driven in and are tight from the
>get-go. Also, it is necessary to select fasteners which do not have threads
>where they pass through the walls of the tubes. This is often the most
>difficult challenge.

That is certainly worth a suspicion or two. I had it tilted over a couple
months ago, after being up for a while, and inspected the bolts and found no
wear. The whole assembly was not "tight" at that time either, and I think it
was the rotor that had the play. But I'll tilt it over again and go through it
all.

Thanks,

Dave Head
K8DH

3027. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 04:34:05 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403983ae$1_1@corp.newsgroups.com>
Source record: 99499

Richard Harrison wrote:
> The receiving antenna can never be more than 50% efficient due to
> re-radiation which I don`t seem to be able to explain. Sorry.

It's because receiving antennas are linear devices which I don't
seem to be able to explain. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3028. Re: Radio Shack's FM turstile antenna [150-1639 or 15-1639]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 06:53:32 UTC
From: Chris Boone <nospam@earthlink.net>
Message-ID: <c1c81c$l1j$1@xuxa.iecc.com>
Source record: 99500
Cross-posted to: rec.audio.tech,rec.radio.amateur.antenna,rec.radio.broadcasting

A turnstile is two dipoles (not folded) at 90 degrees...
The Wineguard/RS version is just a folded dipole to make it 300
ohms..but they can be standard dipoles...

Chris
WB5ITT

Cambio wrote:

> My recollection of a turnstile antenna is two folded dipoles at 90 degrees
> to each other.
> See URL:
> http://www.qsl.net/wb8erj/turnstile_antenna.htm
>
>
> A search of radio shack catalog does not show one nor is it in the manual
> lookup section
> However there is a Lindsay turnstile at URL:
> http://www.lindsayelec.com/fm88-108.html
>
>
> Easily found by using Google -- the searchers friend
>
> --
> 73- Cambio - Keyboard To You (:-)
>
>

--
Replace NOSPAM with 1st initial and last name for direct reply!

3029. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 14:54:50 UTC
From: richardharrison@webtv.net
Message-ID: <1903-403A143A-287@storefull-3258.bay.webtv.net>
Source record: 99501

Don, K6MHE wrote:
"Where did you come up with that one?"
(A response to my statement that a receiving antenna must be resonant to enable full acceptance of available energy)

I`ve tweaked antenna trimmers which dramatically boosted the signal when reasonance was reached. I`ve seen grounded 1/4-wave structures near a broadcast station detuned, thus eliminating the distortion they had caused in the station`s radiation pattern. If they`re not resonant, they don`t accept enough energy to make any difference in the station`s pattern.

!/2-wave wires in free-space are resonant. Resonance is defined as unity power factor, that is, XL=XC. At resonance, reactance is balanced out and only resistance is left to oppose current in a wire. Usually the wire has a radiation resistance which is large as compared with its loss resistance in practical antennas.

At frequencies below first resonance, the ungrounded wire is less than a 1/2-wavelencth. It has a low radiation resistance and a high capacitive reactance. We can add inductance to tune the wire to resonance.

At frequencies above first resonance, the ungrounded wire is more than a 1/2-wavelength, and if it is not much longer, the wiire has an inductive reactance. The phase flip-flop at resonance is abrupt and the reactance is an impediment to the current on either side of resonance. The correct series capacitor can be placed in series with the roo-long wire to tune out its excess inductive reactance.

A mechanical analog is the vibrating-reed frequency meter used at power frequencies. All the reeds are in the power-frequency field. Only the reed of resonant length has so little opposition to the excitation that it vibrates freely.

A versatile antenna tuner can insert either inductive or capacitive reactance in series with an antenna to correct its power factor (tune it to resonance) so it can accept maximum excitation.

Best regards, Richard Harrison, KB5WZI

3030. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 15:15:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403a19ea_4@corp.newsgroups.com>
Source record: 99503

Mark Keith wrote:
> If you are using the vertical for long haul, the increased received
> noise is a non issue.

Actually, that's when an s-7 noise level is the biggest issue. Most
long haul signals are below s-7.

>The signals will override the noise. IE: the
> noise might be 2 s units higher, but the signal increase over the low
> dipole will likely be more than that. The vertical still wins overall.

Bottom line: Verticals are essentially useless in Madisonville, TX and,
to the best of my knowledge, all hams here are forced to use horizontally
polarized antennas. Anyone who wants a nice 33 foot long vertical, come
on over and haul it away for free. Drilling out the pop rivets allows
collapsing it to six feet long.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3031. Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 15:16:47 UTC
From: Scott Downey <sdowney717@msn.com>
Message-ID: <c1d5ha$1hfop6$1@ID-150959.news.uni-berlin.de>
Source record: 99502

I have a white fiberglass top loaded antenna that is 48 inches long.

At the bottom of the antenna where the metal part screws onto the L bracket
aluminum mounting base is imprinted 'wondershaft'.

It is toploaded because the top 15 inches is thicker and I assume there is a
coil of wire under the white fiberglass covering.
It uses a Pl259 coax connector mount on the base for the coax cable.

Does anyone know if this is a marine CB antenna or would it be a marine VHF
antenna or how to tell the difference?
Thanks for any info.

3032. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 16:03:56 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <103k93ih1qqmt21@corp.supernews.com>
Source record: 99504

Scott;

What you have there is a CB antenna. You can tell from the loading coil
at the top of the stick. A VHF marine antenna will not have any coils as
the 48" length is sufficent for a half wave vertical dipole.

Dave WD9BDZ

Scott Downey wrote:
> I have a white fiberglass top loaded antenna that is 48 inches long.
>
> At the bottom of the antenna where the metal part screws onto the L bracket
> aluminum mounting base is imprinted 'wondershaft'.
>
> It is toploaded because the top 15 inches is thicker and I assume there is a
> coil of wire under the white fiberglass covering.
> It uses a Pl259 coax connector mount on the base for the coax cable.
>
> Does anyone know if this is a marine CB antenna or would it be a marine VHF
> antenna or how to tell the difference?
> Thanks for any info.
>
>
>

3033. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 16:10:06 UTC
From: "Dan Richardson"
Message-ID: <d78k301j2j4508sqeiac2kb76lka079ns8@4ax.com>
Source record: 99507

On Mon, 23 Feb 2004 08:54:50 -0600 (CST), richardharrison@webtv.net (Richard Harrison) wrote:

>A versatile antenna tuner can insert either inductive or capacitive >reactance in series with an antenna to correct its power factor (tune it >to resonance) so it can accept maximum excitation.

I believe you are confusing matching with antenna operation (gain and efficiency). Using a simple dipole for example, you can calculate both gain and efficiency using NEC. Doing that I have modeled a dipole at 3/8, 1/2 and 5/8-wavelengths (80-meter band). The antenna was modeled using #14 copper wire in free space. Here is what NEC reported:

Wavelength Gain(DBi) Efficiency

3/8 1.8 96.36%
1/2 (resonate) 2.02 97.22%
5/8 2.29 97.72%

Clearly you should be able to see that only advantage is that the longer antenna has greater the gain and efficiency. The fact antenna is resonance or not is not the determining factor.

73
Danny, K6MHE

3034. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 16:14:12 UTC
From: Scott Downey <sdowney717@msn.com>
Message-ID: <c1d8t0$1h3s4v$1@ID-150959.news.uni-berlin.de>
Source record: 99505

Thank you.
I was hoping toward CB. I am going to add a CB radio to my boat. I already have a VHF radio.

I have a SWR meter. Will the length of the coax have an effect on the tuning? I would like to have a run from the top of the flybridge to cabin of perhaps around 20 feet.

"David G. Nagel" <nagel@core.com> wrote in message news:103k93ih1qqmt21@corp.supernews.com...
> Scott;
>
> What you have there is a CB antenna. You can tell from the loading coil
> at the top of the stick. A VHF marine antenna will not have any coils as
> the 48" length is sufficent for a half wave vertical dipole.
>
> Dave WD9BDZ
>
> Scott Downey wrote:
> > I have a white fiberglass top loaded antenna that is 48 inches long.
> >
> > At the bottom of the antenna where the metal part screws onto the L bracket
> > aluminum mounting base is imprinted 'wondershaft'.
> >
> > It is toploaded because the top 15 inches is thicker and I assume there is a
> > coil of wire under the white fiberglass covering.
> > It uses a Pl259 coax connector mount on the base for the coax cable.
> >
> > Does anyone know if this is a marine CB antenna or would it be a marine VHF
> > antenna or how to tell the difference?
> > Thanks for any info.
> >
> >
> >
>

3035. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 16:20:48 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1d9cdmcf1@newshost.mot.com>
Source record: 99445

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:267-40379F20-24@storefull-3252.bay.webtv.net...
> teve Nosko wrote:
> "BTW--what is your line, Richard?"
>
> I apologize for a critical tone in my response to Steve`s posting. An
> ancient previous discussion of dissipationless resistance in this
> newsgroup leaves me primed to comment when it appears unappreciated.

I only found it mildly critical. Your tone was not interpreted as
hostile in any way, just driven to add.
>
> Dissipationless resistance is the stuff which allows a Class C amplifier
> exceed 50% efficiency.

See comment on this later...
>
> I won`t say I`ve been teaching X years, as I`ve never had that role.
> Long ago, I found my patience and temperament unsuited to tutoring. I am
> a long retired electrical engineer and find entertainment in the

Ahhh! I say, with an air of new found understanding.

> newsgroups.
>
> Best regards, Richard Harrison, KB5WZI
>

3036. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 16:27:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403a2ac9_2@corp.newsgroups.com>
Source record: 99506

Scott Downey wrote:
> I have a SWR meter. Will the length of the coax have an effect on the
> tuning? I would like to have a run from the top of the flybridge to cabin of
> perhaps around 20 feet.

Is the (metal?) flybridge your ground plane?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3037. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 16:51:43 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <zcq_b.107688$jk2.483011@attbi_s53>
Source record: 99508

Danny,
You can't ever discard the factor Q in any discusion with respect to antenna efficiency or any calculation for that matter.
Q is intrinsic in any calculation that determines efficiency especialy when considering what the object of an antenna is.
Cecil's aproach to what it is the 'object' is to provide a total system , not a system that is led around by its nose by a predetermined antenna structure is an example. The idea of designing a house around a workable door that is pre-supplied is what we do today with respect to communication, and is why I use a different antenna to the norm. When I am confident that personal attacks come to a halt per Antennex statement I will be happy to explain more in depth.
If you are content with what you have then that is understandable as humans always resist change, including myself. You being an antenna guru I understand even more the resistance to accept the possibility of advancement from one who is less educated in the field than oneself.
Regards
Art

"Dan Richardson @mendolink.com>" <<ChangeThisToCallSign> wrote in message news:u5qi30h41hipsos59np3nf8urn8e74mqs7@4ax.com...
> On Sun, 22 Feb 2004 13:07:46 -0600 (CST), richardharrison@webtv.net
> (Richard Harrison) wrote:
>
> >A receiving antenna must be resonant to enable full acceptance of
> >available energy,
>
> Where did you come up with that one?
>
> I suggest you revisit capture area.
>
> Danny, K6MHE
>
>

3038. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 16:52:08 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1db75$p4i$1@newshost.mot.com>
Source record: 99446

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:27310-40381FCB-79@storefull-3257.bay.webtv.net...
> Reg, G4FGQ wrote:
> "What allows a class-C amplifier to exceed 50% efficiency is a small
> operating angle."

While this is too vague, Richard tries to add detail, but mis-steps just
a bit... and Steve goes into an extended "You ain't quite correct blurb..."

>
> Exactly, and during the majority of the degrees it`s switched completely
> off. It draws no current and suffers no "IsquaredR loss" during the
> amplifier off-time. Impedance is approximately E/I, but I is the average
> I, which is much less than the bursts of I during the conduction angle.

We must be careful with the word "average" here.

First, my "class C" model is a follows:
I liken it to digital or "switched modes". While I have never scoped the
plate to observe this... When the tube is cut off for a large part of the
cycle, there is a high voltage on the tube (I believe it swings higher than
the supply dou to the "ringing" of the plate tuned circuit), but no current.
Hence, ExI=0.
When the tube is on, it is slammed hard on by the "high" grid signal and
there is a high plate current, but the plate voltage is very low (anybody
know how low and if I am all wet? ... tubes aren't quite like transistors
in the digital mode)--therefore ExI=somthing, but since the E is low, it is
lower than in class A during that part of a cycle. There may also be some
effect due to the fact that the plate tank is swinging low allowing the
plate voltage to be even lower.

Did you know that in class A, the plate power dissipated goes DOWN by
the amount that is delivered to the load??? Cool! huh? Isn't physics neat!

Second, it is the RMS current through the tube which will waste power,
so it is what we must be concerned with. Yes, if the tube is off the
current is zero at that time, but the RMS must be considered and it does not
go down as fast you might think. As an example, for the same current
pulses, but spaced out to half the duty cycle, the average drops to half,
but the RMS only drops to .707. There is a square root in there.

[[Anybody see the "AC Watt meter article in QST]] It is an OOPS! Most
power supplies don't draw sine wave current. It is pulses. I have been in
contact with both Bob Shrader (the author) and Stu Cohen (Tech editor) and I
just finished an analysis and am going to make more measurements to verify,
but the numbers Bob published can be as much as 1/3 the true power values

(depending upon the DVM he used and the current waveform of the supplies he measured.

--
Steve N, K,9;d, c. i My email has no u's.

wa-da ya blokes think.

>
> The switched-off time makes the I in the denominator of E/I very small
> indeed and the solution to Ohm`s law is a high impedance without the
> dissipation of a resistance that remains in place continuously while
> agitating the atoms of a poor conductor to limit current.
>
> Instead, we have a low-resistanc in high conducton for short spurts.
> On-time is limited, instead of conduction, to produce a certain
> effective resistance.

Another way of saying just wjat I did above, but "effective resistance" is one way of thinking about it and this resistance must be calculated using the RMS values.
>
> An automobile Kettering ignition system may use a dwell-meter to
> indicate how much of the time the points are closed. An ohmmeter
> indicates the resistance between its test prods.

I'd be willing to place a bet (knowing how an analog ohm meter works, that the *diflection* of the two meter pointers is the same (see below). Both meters respond to the averacge current through them and both will show full scale when the points are open (I think thta is the correct polarity). Here's the "below":
There is, however, the confusion added by the coil/cap waveform for which the ohm meter is not equiped to limit - whereas, I believe the dwell meter, if well designed, will have something to limit so as to remofe it as a complicatin.

--
Steve N, K,9;d, c. i My email has no u's..

The two test circuits
> are almost the same although limitation of the deflection of the
> dwell-meter is different from limitation of the deflection of the
> ohmmeter due to the difference between limited conduction angle ignition
> points, and the continuous conduction through a current-limiting
> resistor. There`s an analogy between Class C and Class A amplifiers in
> there somewhere.
>
> Best regards, Richard Harrison, KB5WZI
>
>

3039. 21el Tonna 432mhz old type

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 17:23:53 UTC
From: 9A4QV Adam <aalicaj@pfri.hr>
Message-ID: <c1dco5$u9b$1@bagan.srce.hr>
Source record: 99510

Hello,

Does anybody have the old 21el Tonna 432Mhz. Old means that elements are mounted through the boom noninsulated, not like on the new model with the plastic clips above the boom.
On my old model, there is no feeder, balun parts, missing, lost in transport. I need the instructions and drawings of this parts. How to connect 50ohm coax to closed dipole contacs. What is the impedance of this dipole, Antenna software says 100ohms??
Any mail or info with original drawings will solve the problem

Thanks in advance,
Adam 9A4QV

3040. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 17:29:53 UTC
From: Scott Downey <sdowney717@msn.com>
Message-ID: <c1ddb2$1gdnn2$1@ID-150959.news.uni-berlin.de>
Source record: 99509

The boat is mostly wood and fiberglass, only metal is railings.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:403a2ac9_2@corp.newsgroups.com...
> Scott Downey wrote:
> > I have a SWR meter. Will the length of the coax have an effect on the
> > tuning? I would like to have a run from the top of the flybridge to
cabin of
> > perhaps around 20 feet.
>
> Is the (metal?) flybridge your ground plane?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3041. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 17:35:12 UTC
From: Scott Downey <sdowney717@msn.com>
Message-ID: <c1ddks$1gqa9p$1@ID-150959.news.uni-berlin.de>
Source record: 99511

There is a large stainless metal ground plate with molded in tubes (
increased surface area) attached to the keel.
About 4 feet by 2 feet. I was told years ago these plates may have been used
for AM ground plates??? when using an AM transmitter or perhaps for
lightening protection. The boat was built in 1970. All the electronics are
grounded and this is also included in the ground.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:403a2ac9_2@corp.newsgroups.com...
> Scott Downey wrote:
> > I have a SWR meter. Will the length of the coax have an effect on the
> > tuning? I would like to have a run from the top of the flybridge to
cabin of
> > perhaps around 20 feet.
>
> Is the (metal?) flybridge your ground plane?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3042. Wanted collins 30L1 round

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 17:47:21 UTC
From: Carl Domanico <vze2686b@verizon.net>
Message-ID: <J0r_b.72474$KV5.27576@nwrdny01.gnilink.net>
Source record: 99512

Hi I'm looking for a Collins 30L1 Round Emblem, Linear
Amplifer...Condition...Mint to Excellent..or will accept very good
condition...Reasonably priced...

Thanks
Carl

3043. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 18:08:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403a429e_3@corp.newsgroups.com>
Source record: 99513

Scott Downey wrote:
> The boat is mostly wood and fiberglass, only metal is railings.

To what is the coax shield going to be tied? If that antenna is
an electrical 1/4 wavelength, where's the ground plane?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3044. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 19:17:03 UTC
From: WB2JKX <mycall-N0SPAM@arrl.net>
Message-ID: <Pks_b.78759$hR.1620580@bgtnsc05-news.ops.worldnet.att.net>
Source record: 99514

Scott Downey <sdowney717@msn.com> wrote in message
news:c1ddks$1gqa9p$1@ID-150959.news.uni-berlin.de...
> There is a large stainless metal ground plate with molded in tubes (
> increased surface area) attached to the keel.
> About 4 feet by 2 feet. I was told years ago these plates may have been
used
> for AM ground plates??? when using an AM transmitter or perhaps for
> lightening protection. The boat was built in 1970. All the electronics
are
> grounded and this is also included in the ground.
>
>
Probably would work O.K. for the 2-3 Mhz HF marine band and a mast supported antenna wire, but you'll need a "local" groundplane for the 27Mhz antenna to attach the coax shield to, as was previously questioned.

3045. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 19:19:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b8fk305hsh34sj1jmcv1fe40dforrg184h@4ax.com>
Source record: 99515

On Mon, 23 Feb 2004 16:51:43 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

>You can't ever discard the factor Q in any discusion with respect to antenna
>efficiency or any calculation for that matter.
>Q is intrinsic in any calculation that determines efficiency especialy when
>considering what the object of an antenna is.

Hi Art,

Q is NOT the arbiter of all that is efficient. In fact high Q can
lead to very poor communication links.

The most efficient and simplest antenna, the dipole, exhibits a very
low Q for the very obvious reason: it is built to lose power by
design. The loss to radiation resistance, Rr, is indistinguishable to
Ohmic loss when computing Q. This in itself directly states that
maximizing Q is inimical to transmitting power if you do not separate
out the two losses.

Terman treats this inferentially in his discussion of Power Amplifiers
and their Plate Tank's Q. To select one that exhibits too high a
value is to risk very poor operation. He suggests that a Q of 8 to 15
is a reasonable value. This confounds many who seek to peak their
designs and fail to come to terms with unloaded and loaded Q
valuations.

It is the Q's relation to power loss to heat that makes the
difference, not to the power curve in isolation of this loss. Small
antennas suffer from high Q for this very reason - too little thought
is given to the radiation resistance's correlation to the Ohmic loss
of the system. As Richard has pointed out, one Ohm loss within the
structure is hardly a loss leader for an antenna with 73 Ohms Rr. To
achieve 50% efficiency requires your antenna to exhibit less than this
same value of Ohmic loss (however, let's be generous in comparisons to
1/1000th that value). The rage of "High Q" antennas is in various
loops of small diameters.

Let's look at small loops' Rr for various sizes in tabulated form:
Fo 1M diameter Efficiency with 1 mOhm loss
160M 29 ï¿½Ohms 2.8%
80M 500 ï¿½Ohms 33%
60M 1.5 mOhms 60%
40M 7.5 mOhms 88%
30M 24 mOhms 96%
20M 120 mOhms 99%

Let's examine the validity of that generous assignment of 1 mOhm loss and see if it is reasonably warranted. Skin effect is the single largest contributor to this loss as a source (aside from poor construction techniques). Using the 1M diameter loop as being a practically sized construction, and if were using 2.54cM diameter copper wire/tubing we find:
Fo skin effect loss
160M 13.8 mOhms
80M 20 mOhms
60M 23 mOhms
40M 28 mOhms
30M 33 mOhms
20M 39 mOhms

Well, 1 mOhm was too generous and if we look at those loops' Rr once again against a robust, thick loop element:
Fo 1M diameter Efficiency with skin effect loss
160M 29 ï¿½Ohms 0.2%
80M 500 ï¿½Ohms 2.4%
60M 1.5 mOhms 6%
40M 7.5 mOhms 21%
30M 24 mOhms 42%
20M 120 mOhms 75%

These "High Q" loops are NOT efficient, they are convenient. The two terms are not the same at all and yet in common discussion they are confused to mean the same thing.

I would point out further, that commercial vendors do not use 1 inch tubing (as the numbers above would force to even bigger conductors). Instead they use much larger tubing; but even here, one vendor uses a flat strap which is a very poor substitute as the skin resistance is defined at the edges and the face of the flat strap is far less conductive. The physics of conduction forces current to seek the smallest radius (the edge) to the exclusion of the broad surface (this is why we use tubular conductors and not flat ones).

I will leave it to the student to reverse-engineer the required conductor size to obtain the same 1 mOhm results of the first table above. Even then, it will be seen that the common dipole still reigns supreme in efficiency.

73's
Richard Clark, KB7QHC

3046. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 19:43:55 UTC
From: richardharrison@webtv.net
Message-ID: <22644-403A57FB-142@storefull-3256.bay.webtv.net>
Source record: 99516

Dan Richardson wrote:
"The fact is resonance or not is not the determining factor."

Resonance of the antenna system is the determining factor in the performance of a standing-wave antenna.

This is an amateur group, so you may check the "ARRL Antenna Book". My 19th edition has resonant antennas on page 9-2.

Fig 2 is a series RLC circuit representation of the typical standing-wave antenna.

Ohm`s law should be noncontroversial (I=E/Z).
To maximize I with a given voltage, Z must be minimized. Z in the series circuit is the phasor sum of R and X.

R has probably been established firmly in an antenna by its construction and placement but we can tune the antenna system to make it resonant so that we eliminate X to get maximum current into the antenna and to thereby get maximum performance out of the antenna.

Best regards, Richard Harrison, KB5WZI

3047. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 20:18:08 UTC
From: richardharrison@webtv.net
Message-ID: <1903-403A6000-323@storefull-3258.bay.webtv.net>
Source record: 99518

Art, KB9MZ wrote:
"You can`t ever discard the factor Q in any discussion with respect to antenna efficiency or any calculation for that matter."

Kraus writes in his 1950 edition of "Antennas" on page 299:
"The Q of an antenna, like the Q of any resonant circuit, is proportional to the ratio of the energy stored to the energy lost (in heat or radiation) per cycle."

(in heat or radiation) are Kraus` words, not mine. It means the R of the antenna used in the Q operations is formed of the sum of Rr+Rloss.

Efficiency is Rr/Rr+Rloss

The Q=X/R, where R is the sum of Rr+Rloss.

If R is heavily weighted toward Rr, the antenna is efficient. If R is heavily weighted toward Rloss, the antenna is inefficient.

Q as an indicator of efficiency is baloney.

Best regards, Richard Harrison, KB5WZI

3048. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 20:18:13 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402231218.487a1337@posting.google.com>
Source record: 99517

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<403a19ea_4@corp.newsgroups.com>...
> Mark Keith wrote:
> > If you are using the vertical for long haul, the increased received
> > noise is a non issue.
>
> Actually, that's when an s-7 noise level is the biggest issue. Most
> long haul signals are below s-7.
>
> >The signals will override the noise. IE: the
> > noise might be 2 s units higher, but the signal increase over the low
> > dipole will likely be more than that. The vertical still wins overall.
>
> Bottom line: Verticals are essentially useless in Madisonville, TX and,
> to the best of my knowledge, all hams here are forced to use horizontally
> polarized antennas. Anyone who wants a nice 33 foot long vertical, come
> on over and haul it away for free. Drilling out the pop rivets allows
> collapsing it to six feet long.

Cecil,
verticals are essentially useless...Have you tried link coupling to a
vertcal?
If that doesn't work then you could then add a picket fence even tho
there will be a bit of capacitive loss.
Regards
Art

3049. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 20:35:24 UTC
From: Scott Downey <sdowney717@msn.com>
Message-ID: <c1do6n$1h9i38$1@ID-150959.news.uni-berlin.de>
Source record: 99419

Are you saying it wont work?
Why would the manufacturer make a marine CB antenna knowing it would be put
on a fiberglass boat knowing that most people would simply hook up the coax
and see it it works.
I read in the marine catalogs about marine CB antennas designed for boats
and not to be concerned about a ground plane.
Anyone know the answer?

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:403a429e_3@corp.newsgroups.com...
> Scott Downey wrote:
> > The boat is mostly wood and fiberglass, only metal is railings.
>
> To what is the coax shield going to be tied? If that antenna is
> an electrical 1/4 wavelength, where's the ground plane?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3050. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 20:54:11 UTC
From: Scott Downey <sdowney717@msn.com>
Message-ID: <c1dp9v$1h2fkc$1@ID-150959.news.uni-berlin.de>
Source record: 99420

I found this

"I agree with the other posts. The length of cable is not an issue and your problem is a lack of a good groundplane. I suggest that you try a CB marine antenna. These antennas are design to operator without a groundplane. However, they are probably not design to handle high power. Looking at shakespears webpage it looks like there antennas are limited to 25 watts max. Well with in the range of a legal CB radio."

http://www.shakespeare-marine.com/index.html

what a long link

http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&oe=UTF-8&threadm=voxL7.18%24ib5.12973%40news2.news.adelphia.net&rnum=4&prev=/groups%3Fhl%3Den%26lr%3D%26ie%3DUTF-8%26oe%3DUTF-8%26q%3Dmarine%2Bcb%2Bantenna%2Bdesign%26sa%3DN%26tab%3Dwg

"Scott Downey" <sdowney717@msn.com> wrote in message
news:c1do6n$1h9i38$1@ID-150959.news.uni-berlin.de...
> Are you saying it wont work?
> Why would the manufacturer make a marine CB antenna knowing it would be
put
> on a fiberglass boat knowing that most people would simply hook up the
coax
> and see it it works.
> I read in the marine catalogs about marine CB antennas designed for boats
> and not to be concerned about a ground plane.
> Anyone know the answer?
>
>
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:403a429e_3@corp.newsgroups.com...
> > Scott Downey wrote:
> > > The boat is mostly wood and fiberglass, only metal is railings.
> >
> > To what is the coax shield going to be tied? If that antenna is
> > an electrical 1/4 wavelength, where's the ground plane?
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 100,000 Newsgroups - 19 Different Servers! =-----
>

>

3051. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 20:58:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <74qk30lde3raif51umf9r7qabuvmf95d76@4ax.com>
Source record: 99421

On Mon, 23 Feb 2004 15:35:24 -0500, "Scott Downey"
<sdowney717@msn.com> wrote:
>I read in the marine catalogs about marine CB antennas designed for boats
>and not to be concerned about a ground plane.
>Anyone know the answer?

Hi Scott,

It could be a half-wave antenna (or jimmied to look like one) and it
counts on the cable feed to act as the minimal counterpoise to work
against.

OR

It could be outright baloney about not needing a ground plane.
CB does not have the reputation for marketing to the savvy.

73's
Richard Clark, KB7QHC

3052. Re: GAP Super C antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 21:00:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2aqk309mlkg4ijbpej7ciuepti3rjafenn@4ax.com>
Source record: 99422

On Mon, 23 Feb 2004 21:40:04 +0100 (CET), Nomen Nescio
<nobody@dizum.com> wrote:
>Also, I'm looking at the GAP line, the Eagle in particular, for an
>alternative for a condo. I'd appreciate any testimonials on performance.

Hi Nomen,

It works fine (as do the other in the GAP line) above the first,
lowest listed band (which by reports often reveals: poor).

73's
Richard Clark, KB7QHC

3053. Re: GAP Super C antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 21:30:04 UTC
From: Nomen Nescio <nobody@dizum.com>
Message-ID: <731f59896c84569d98f439cc44cfa29e@dizum.com>
Source record: 99423

In article <2aqk309mlkg4ijbpej7ciuepti3rjafenn@4ax.com>
Richard Clark <kb7qhc@comcast.net> wrote:

Hello Richard and thanks for your reply. I'm a bit confused though when
you say, " above the first,
lowest listed band (which by reports often reveals: poor)." Could you
clarify?
73

3054. Re: GAP Super C antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 21:57:44 UTC
From: jgboyles@aol.com
Message-ID: <20040223165744.26379.00000241@mb-m20.aol.com>
Source record: 99424

>Any comments on the new GAP antenna seen at:

Nomen, It's not exactly new, I saw my first one at Dayton 5 years ago. Since then I have not talked to anyone that has actually bought one and put it on the air. It should work about as well as the average mobile antenna on 20m up. There are a lot less expensive ways to get a signal out.

73 Gary N4AST

3055. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 22:02:40 UTC
From: "Dan Richardson"
Message-ID: <chtk30l87i8dmk20498i9ojgcrvmbg4n8j@4ax.com>
Source record: 99428

Let me try this one more time. You had posted earlier and I commented
on this:

"A receiving antenna must be resonant to enable full acceptance of
available energy, and it must be matched to avoid re-radiation of more
than 50% of the energy it is able to grab."

I commented on the first portion of your statement (above). My only
point is that it makes no difference if an antenna's is resonate or
not in determining how much energy it grabs.

That's it, nothing more.

73
Danny, K6MHE

On Mon, 23 Feb 2004 13:43:55 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Dan Richardson wrote:
>"The fact is resonance or not is not the determining factor."
>
>Resonance of the antenna system is the determining factor in the
>performance of a standing-wave antenna.
>
>This is an amateur group, so you may check the "ARRL Antenna Book". My
>19th edition has resonant antennas on page 9-2.
>
>Fig 2 is a series RLC circuit representation of the typical
>standing-wave antenna.
>
>Ohm`s law should be noncontroversial (I=E/Z).
>To maximize I with a given voltage, Z must be minimized. Z in the series
>circuit is the phasor sum of R and X.
>
>R has probably been established firmly in an antenna by its construction
>and placement but we can tune the antenna system to make it resonant so
>that we eliminate X to get maximum current into the antenna and to
>thereby get maximum performance out of the antenna.
>
>Best regards, Richard Harrison, KB5WZI

3056. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 22:03:20 UTC
From: David Ryeburn <ryeburn@sfu.caz>
Message-ID: <ryeburn-607C70.14032023022004@morgoth.sfu.ca>
Source record: 99426

In article <403a19ea_4@corp.newsgroups.com>,
Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:

> Mark Keith wrote:
> > If you are using the vertical for long haul, the increased received
> > noise is a non issue.
>
> Actually, that's when an s-7 noise level is the biggest issue. Most
> long haul signals are below s-7.
>
> >The signals will override the noise. IE: the
> > noise might be 2 s units higher, but the signal increase over the low
> > dipole will likely be more than that. The vertical still wins overall.
>
> Bottom line: Verticals are essentially useless in Madisonville, TX and,
> to the best of my knowledge, all hams here are forced to use horizontally
> polarized antennas. Anyone who wants a nice 33 foot long vertical, come
> on over and haul it away for free. Drilling out the pop rivets allows
> collapsing it to six feet long.

Why don't you keep the vertical and just use it for transmitting when
working DX? You could still use the horizontal antenna for receiving.

Alternatively you could put up another noise antenna with poor distance
capabilities but good response to the locally-generated noise, and
combine the signals from it and the good vertical for reception, so as
to reduce the local noise without greatly reducing the incoming DX
signal strength.

David, ex-W8EZE, who remembers working ZLs and VKs from Ohio with very
low power on 80 CW while using a vertical

--
David Ryeburn
ryeburn@sfu.caz
To send e-mail, use "ca" instead of "caz".

3057. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 22:04:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kqqk30pjhq0e0ikbu9304n5g4has325c44@4ax.com>
Source record: 99425

On Mon, 23 Feb 2004 13:43:55 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Dan Richardson wrote:
>"The fact is resonance or not is not the determining factor."
>
>Resonance of the antenna system is the determining factor in the
>performance of a standing-wave antenna.
>
>This is an amateur group, so you may check the "ARRL Antenna Book". My
>19th edition has resonant antennas on page 9-2.
>
>Fig 2 is a series RLC circuit representation of the typical
>standing-wave antenna.
>
>Ohm`s law should be noncontroversial (I=E/Z).
>To maximize I with a given voltage, Z must be minimized. Z in the series
>circuit is the phasor sum of R and X.
>
>R has probably been established firmly in an antenna by its construction
>and placement but we can tune the antenna system to make it resonant so
>that we eliminate X to get maximum current into the antenna and to
>thereby get maximum performance out of the antenna.
>
>Best regards, Richard Harrison, KB5WZI

Hi All,

As a test of modeling and actual, real data, I put this to the test:

1.) I established two full quarter wave antennas;
2.) each with a set of 48 radials;
3.) tuned to 1.7 MHz;
4.) separated them by 20KM (>100 wavelengths);
5.) set one to have a source of 1000W;
6.) loaded the other at the base with a 50Ohm resistor;
all in EZNEC with enough segments to hit the 500 limit.

When I called for the load data, EZNEC calculated it to be:
Power = 0.0008166 watts

This was by virtue of the receive antenna's length of 41.79M applying
the power across the resistor. In the standard of field measurement,
this reduced to
Eï¿½ = Power ï¿½ 50Ohms
or

E = 202.1mV
or
4.84 mV/M

Now, for the reality check:

When I compare to the FCC Ground Wave charts for
1.) the same frequency;
2.) at 20KM distance;
3.) per 1KW of power
I found their forecast of
5 mV/M (within the accuracy of chart reading)

THEN, I reduced the same receive antenna's length to 1/10th Wavelength
and observed its load's response to the identical field:

Power = 7.804E-06 watts

This was by virtue of the receive antenna's length of 17.64M applying
the power across the resistor. In the standard of field measurement,
this reduced to
Eï¿½ = Power ï¿½ 50Ohms
or
E = 19.8mV
or
1.12 mV/M
WHICH IS KNOWN TO BE FALSE!

The antenna, by virtue of its being shortened exhibits a reactance
-153.73 deg.

Being lazy, I monkeyed around with inductance values (aka tuning).
When I arrived on an Xl of 225Ohms the voltage across the resistor
showed:
E = 88.7mV
or
5 mV/M
WHICH IS KNOWN TO BE TRUE!

I also omitted pushing this inductor up into the antenna given this
exercise is oriented towards the SWLer who would not have that option
across the many frequencies offered.

This offers
1.) the commonplace observation of the transfer of power;
2.) the commonplace observation of the benefits of tuning;
3.) the validity of modeling confirmed through the commonplace
evidence of practice.

73's
Richard Clark, KB7QHC

3058. Re: GAP Super C antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 22:12:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8auk30pro0t0lle5s0t5pj8k9oer7r0gf7@4ax.com>
Source record: 99427

On Mon, 23 Feb 2004 22:30:04 +0100 (CET), Nomen Nescio
<nobody@dizum.com> wrote:

>In article <2aqk309mlkg4ijbpej7ciuepti3rjafenn@4ax.com>
>Richard Clark <kb7qhc@comcast.net> wrote:
>
>Hello Richard and thanks for your reply. I'm a bit confused though when
>you say, " above the first,
>lowest listed band (which by reports often reveals: poor)." Could you
>clarify?
>73

Hi Nomen,

In the GAP line of vertical antennas (not speaking about this joke of
the Super C); each antenna performs poorly on its lowest operational
band. Otherwise, it works as well as the ad-hoc vertical tuned for
any of the higher bands. The Eagle DX (I have one) is not very
remarkable on 40M.

The larger models, reported here by others, exhibit equally poor
reports on their lowest operational band, and generally good marks for
the higher bands. It does well to elevate the antenna to obtain what
good qualities that are reported here. Mine is at 10 feet above
ground at the edge of a car port. It is unguyed and has survived some
very heavy wind (around 60MPH).

73's
Richard Clark, KB7QHC

3059. Re: Does phasing verticals work better than dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 22:43:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403a82ed_7@corp.newsgroups.com>
Source record: 99429

Art Unwin KB9MZ wrote:
> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Bottom line: Verticals are essentially useless in Madisonville, TX

> Cecil, verticals are essentially useless...

Now Art, don't misquote me. My QTH has terrible vertically polarized
power line noise all over town which it didn't have 50 years ago when
I was first licensed. In the early 50's, I used a vertical and it
worked well enough to WAS except for Idaho.

I am not down on verticals in general. I am down on verticals at my QTH.
Virtually every power pole with a transformer drowns out a 10kw AM
station 30 miles away on a car radio.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3060. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 22:46:48 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403a83cd_7@corp.newsgroups.com>
Source record: 99430

Scott Downey wrote:

> Are you saying it wont work?
> Why would the manufacturer make a marine CB antenna knowing it would be put
> on a fiberglass boat knowing that most people would simply hook up the coax
> and see it it works.
> I read in the marine catalogs about marine CB antennas designed for boats
> and not to be concerned about a ground plane.
> Anyone know the answer?

I said "if it is a 1/4WL antenna..." If it is a 1/2WL antenna, it will work
without a ground plane. Does it have a coax connector on it? If so, what is
the outside of the connector tied to?

> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>To what is the coax shield going to be tied? If that antenna is
>>an electrical 1/4 wavelength, where's the ground plane?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3061. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 23:12:39 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <HNv_b.375378$I06.4007352@attbi_s01>
Source record: 99431

Dan it is wise to remember that Richard "cherry picks" statements from assorted books and disregards the chapter heading and what is discussed in that chapter. He only looks for a statement that suits his present state of mind and suggests authority and ignores the underlying subject of the thread. In that same chapter it is discussed how the losses mount up as you move away from the resonant point and shows where the losses could amount to 5dB no less. There is a proviso
in that the antenna books that I have precede the one that he is refering to so there may be some evidence that somebody has pushed the envelope beyond Maxwell and others.
I think the actual chapter refers to broadband antennas rather than those of a narrow bandwidth so it is always advisably to check so called "book quotes" rather than accept what people interprete what is relavent in their own minds.
Regards
Art

"Dan Richardson @mendolink.com>" <<ChangeThisToCallSign> wrote in message news:chtk30l87i8dmk20498i9ojgcrvmbg4n8j@4ax.com...
> Let me try this one more time. You had posted earlier and I commented
> on this:
>
> "A receiving antenna must be resonant to enable full acceptance of
> available energy, and it must be matched to avoid re-radiation of more
> than 50% of the energy it is able to grab."
>
> I commented on the first portion of your statement (above). My only
> point is that it makes no difference if an antenna's is resonate or
> not in determining how much energy it grabs.
>
> That's it, nothing more.
>
> 73
> Danny, K6MHE
>
>
> On Mon, 23 Feb 2004 13:43:55 -0600 (CST), richardharrison@webtv.net
> (Richard Harrison) wrote:
>
> >Dan Richardson wrote:
> >"The fact is resonance or not is not the determining factor."
> >
> >Resonance of the antenna system is the determining factor in the
> >performance of a standing-wave antenna.

> >
> >This is an amateur group, so you may check the "ARRL Antenna Book". My
> >19th edition has resonant antennas on page 9-2.
> >
> >Fig 2 is a series RLC circuit representation of the typical
> >standing-wave antenna.
> >
> >Ohm`s law should be noncontroversial (I=E/Z).
> >To maximize I with a given voltage, Z must be minimized. Z in the series
> >circuit is the phasor sum of R and X.
> >
> >R has probably been established firmly in an antenna by its construction
> >and placement but we can tune the antenna system to make it resonant so
> >that we eliminate X to get maximum current into the antenna and to
> >thereby get maximum performance out of the antenna.
> >
> >Best regards, Richard Harrison, KB5WZI
>

3062. To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 23:33:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1e2k9$45b$1@hercules.btinternet.com>
Source record: 99432

How many of you can calculate (yes, a number is required) the Q of a
1/2-wave dipole at resonance?

Dipole length = 10 metres.
Dipole diameter = 1 millimetre.

All those who have no idea where to begin this elementary task, that's most
of you, will now, as usual, accuse me of "Trolling".

I wonder how long it will be before someone comes up with an answer.

==========

"When you can measure what you are speaking about and express it in numbers
you know something about it. But when you cannot measure it, when you cannot
express it in numbers, your knowledge is of a meagre and unsatisfactory
kind. It may be the beginning of knowledge but you have scarcely in your
thoughts advanced to the state of science."

: William Thomson, Lord Kelvin, 1824-1907.

Reg, G4FGQ

3063. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-23 23:47:15 UTC
From: richardharrison@webtv.net
Message-ID: <1903-403A9103-350@storefull-3258.bay.webtv.net>
Source record: 99433

Dan, K6MHE wrote:
"My only point is that it makes no difference if an antenna`s is resonate or not in determining how much energy it grabs."

Not in the "grand scheme of things", perhaps, but a resonant antenna extracts more energy when swept by a traveling wave than an off-resonance conductor does at the same distance from the transmitter.

On some occasion you may have adjusted the antenna trimmer on a receiver and found a signal peak. That adjustment balanced out the reactance in the antenna system leaving only the antenna resistance to oppose current flow in the antenna. Proper adjustment maximizes antenna current induced by the wave.

The mechanism is simple. The antenna is a series RLC circuit. Current in the antenna is a function of the field strength divided by the impedance of the RLC circuit. Impedance to antenna current is least when all of the reactance has been eliminated. You have probably experienced peaking the signal this way with your ears, a meter, or an oscilloscope.

Let`s look at an oft repeated type of true story by John E. Cunningham in his "Complete Broadcast Antenna Handbook":

"Not every tall structure will affect the pattern of a broadcast station. The effect on the pattern depends on the height of the structure. In one case, a microwave tower was erected, one section at a time, near a 4-tower directional antenna system. As construction progressed, the current in one tower began to drop as each new tower section was added to the microwave tower. The current continued to drop until it nearly reached zero. But, as more sections were added to the microwave tower, the current began to rise. When the microwave tower reached its final height, all of the tower currents of the broadcast antenna, as well as the pattern, were normal.

Resonance, or lack of resonance, makes all the difference!

Best regards, Richard Harrison, KB5WZI

3064. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 00:05:51 UTC
From: richardharrison@webtv.net
Message-ID: <1903-403A955F-357@storefull-3258.bay.webtv.net>
Source record: 99434

Art, KB9MZ wrote:
"Dan it is wise to remember that Richard "cherry picks" statements from assorted books and disregards the chapter heading and what is discussed in the chapter."

Forget the books! Surely some time in your long career you`ve peaked an antenna trimmer and it worked. Why?

Best regards, Richard Harrison, KB5WZI

3065. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 00:47:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qh7l30t2ttgur9caijoj0e6m67dig8b23a@4ax.com>
Source record: 99435

On Mon, 23 Feb 2004 23:33:30 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>How many of you can calculate (yes, a number is required) the Q of a
>1/2-wave dipole at resonance?

1 of us at least (me).

Now try this on for size. What is the Q of free space? (Look out
Art, its an efficiency thing.)

73's
Richard Clark, KB7QHC

3066. Re: GAP Super C antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 01:00:10 UTC
From: Nomen Nescio <nobody@dizum.com>
Message-ID: <1eff37c224a5772db25b6f7d6e251e43@dizum.com>
Source record: 99436

In article <20040223165744.26379.00000241@mb-m20.aol.com>
jgboyles@aol.com (JGBOYLES) wrote:

Hello Gary and thanks for your time. It's a strange hunk of metal. If it had been April 1, I would have thought it a joke. Of course, I remember seeing the first Bose speakers many years back and doubted those would work too. If you had a situation where your space is limited adn a vertical seems to be the last option, do you have any other way you would go?

3067. Re: GAP Super C antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 01:40:15 UTC
From: Nomen Nescio <nobody@dizum.com>
Message-ID: <207481aca6cedc89ea253e4a6dee9f9e@dizum.com>
Source record: 99437

In article <8auk30pro0t0lle5s0t5pj8k9oer7r0gf7@4ax.com>
Richard Clark <kb7qhc@comcast.net> wrote:

Thanks Richard for the explanation. That makes sense now that I re-read.
I will take that into account. I had a 4 el beam at 90 feet for many
years and worked most anything I heard. The condo is great but it has cut
into the hamming. Went sats for some time but they seem to keep failing
while others fall out of the sky. The vert is the only answer I have and
I appreciate your input.
73

3068. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 01:42:11 UTC
From: Scott Downey <sdowney717@msn.com>
Message-ID: <c1ea5v$1hr5mj$1@ID-150959.news.uni-berlin.de>
Source record: 99438

Yes, it has a pl 259 coax connector on the antenna and it did not come with
any cable.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:403a83cd_7@corp.newsgroups.com...
> Scott Downey wrote:
>
> > Are you saying it wont work?
> > Why would the manufacturer make a marine CB antenna knowing it would be
put
> > on a fiberglass boat knowing that most people would simply hook up the
coax
> > and see it it works.
> > I read in the marine catalogs about marine CB antennas designed for
boats
> > and not to be concerned about a ground plane.
> > Anyone know the answer?
>
> I said "if it is a 1/4WL antenna..." If it is a 1/2WL antenna, it will
work
> without a ground plane. Does it have a coax connector on it? If so, what
is
> the outside of the connector tied to?
>
> > "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >>To what is the coax shield going to be tied? If that antenna is
> >>an electrical 1/4 wavelength, where's the ground plane?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3069. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 02:22:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403ab65c$1_2@corp.newsgroups.com>
Source record: 99439

Reg Edwards wrote:
> How many of you can calculate (yes, a number is required) the Q of a
> 1/2-wave dipole at resonance?
> Dipole length = 10 metres.
> Dipole diameter = 1 millimetre.
> I wonder how long it will be before someone comes up with an answer.

Off the top of my head, I would estimate a Q of about 10.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3070. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 02:24:35 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403ab6d8_2@corp.newsgroups.com>
Source record: 99440

Scott Downey wrote:
> Yes, it has a pl 259 coax connector on the antenna and it did not come with
> any cable.

But what is the outside shield of the pl259 connected to inside the antenna?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3071. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 03:17:40 UTC
From: tdonaly@aol.com
Message-ID: <20040223221740.26379.00000261@mb-m20.aol.com>
Source record: 99441

Reg wrote,
>
>
>How many of you can calculate (yes, a number is required) the Q of a
>1/2-wave dipole at resonance?
>
>Dipole length = 10 metres.
>Dipole diameter = 1 millimetre.
>
>All those who have no idea where to begin this elementary task, that's most
>of you, will now, as usual, accuse me of "Trolling".
>
>I wonder how long it will be before someone comes up with an answer.
>

Anyone can calculate it, but will they have the right number when they
do?
73,
Tom Donaly, KA6RUH
(P.S. I apologize in advance to Bill's ghost.)

3072. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 03:20:29 UTC
From: tdonaly@aol.com
Message-ID: <20040223222029.26379.00000262@mb-m20.aol.com>
Source record: 99442

```
Cecil wrote,
>
>Reg Edwards wrote:
>> How many of you can calculate (yes, a number is required) the Q of a
>> 1/2-wave dipole at resonance?
>> Dipole length = 10 metres.
>> Dipole diameter = 1 millimetre.
>> I wonder how long it will be before someone comes up with an answer.
>
>Off the top of my head, I would estimate a Q of about 10.
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

Off the top of your head it may well be 10, but what about
somewhere else in the universe, what will it be there?
73,
Tom Donaly, KA6RUH
```

3073. 04 Grand Cherokee Fuel Pump Noise.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 03:27:58 UTC
From: bschmidt12@charter.net
Message-ID: <8fde2bbd.0402231927.46944227@posting.google.com>
Source record: 99443

I have determined I am getting noise from my fuel pump in a 04 Grand Cherokee. I want to bypass the fuel pump electrical wires, but need their location and color code.

Anyone have this info??

TNX
Bob, WA9JDR

3074. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 05:52:25 UTC
From: S <fn30@optonline.net>
Message-ID: <tEB_b.64378$ac.15562231@news4.srv.hcvlny.cv.net>
Source record: 99444

i am going to say Q=X

X=the answer to Reg's question

how do you like that

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20040223221740.26379.00000261@mb-m20.aol.com...
> Reg wrote,
> >
> >
> >How many of you can calculate (yes, a number is required) the Q of a
> >1/2-wave dipole at resonance?
> >
> >Dipole length = 10 metres.
> >Dipole diameter = 1 millimetre.
> >
> >All those who have no idea where to begin this elementary task, that's
most
> >of you, will now, as usual, accuse me of "Trolling".
> >
> >I wonder how long it will be before someone comes up with an answer.
> >
>
> Anyone can calculate it, but will they have the right number when they
> do?
> 73,
> Tom Donaly, KA6RUH
> (P.S. I apologize in advance to Bill's ghost.)
>
>

3075. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 07:46:45 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <OKWdnbwOQ7WwnKbdRVn-vw@comcast.com>
Source record: 99447

Cecil is not fallowing along. I have an antenna just like yours and it is
designed to work without a ground plane. It is designed for boats.
"Scott Downey" <sdowney717@msn.com> wrote in message
news:c1do6n$1h9i38$1@ID-150959.news.uni-berlin.de...
> Are you saying it wont work?
> Why would the manufacturer make a marine CB antenna knowing it would be
put
> on a fiberglass boat knowing that most people would simply hook up the
coax
> and see it it works.
> I read in the marine catalogs about marine CB antennas designed for boats
> and not to be concerned about a ground plane.
> Anyone know the answer?
>
>
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:403a429e_3@corp.newsgroups.com...
> > Scott Downey wrote:
> > > The boat is mostly wood and fiberglass, only metal is railings.
> >
> > To what is the coax shield going to be tied? If that antenna is
> > an electrical 1/4 wavelength, where's the ground plane?
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 100,000 Newsgroups - 19 Different Servers! =-----
>
>

3076. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 12:09:34 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Yb6dnXzxHbCYoqbdRVn-uw@crocker.com>
Source record: 99448

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c1e2k9$45b$1@hercules.btinternet.com...
>
> How many of you can calculate (yes, a number is required) the Q of a
> 1/2-wave dipole at resonance?
>
> Dipole length = 10 metres.
> Dipole diameter = 1 millimetre.
>
> All those who have no idea where to begin this elementary task, that's
most
> of you, will now, as usual, accuse me of "Trolling".
>
> I wonder how long it will be before someone comes up with an answer.

never, it is an incomplete problem specification so you can always say they
are wrong.

3077. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 12:23:46 UTC
From: Eric Oyen - N7ZZT <n7zzt@127.0.0.1>
Message-ID: <pan.2004.02.24.12.23.46.803049@127.0.0.1>
Source record: 99449

and interesting brain teaser.

you actually had me breaking out the books on this one (talking books are kinda hard to paruse and the other formats are too slow).

However, at a guess, I'd say the Q of this antenna is about 12. call it a guess and one thats probably not far from the actual (if measured) numbers.

DE N7ZZT

On Mon, 23 Feb 2004 23:33:30 +0000, Reg Edwards wrote:

>
> How many of you can calculate (yes, a number is required) the Q of a
> 1/2-wave dipole at resonance?
>
> Dipole length = 10 metres.
> Dipole diameter = 1 millimetre.
>
> All those who have no idea where to begin this elementary task, that's
> most of you, will now, as usual, accuse me of "Trolling".
>
> I wonder how long it will be before someone comes up with an answer.
>
> ================================
>
> "When you can measure what you are speaking about and express it in
> numbers you know something about it. But when you cannot measure it, when
> you cannot express it in numbers, your knowledge is of a meagre and
> unsatisfactory kind. It may be the beginning of knowledge but you have
> scarcely in your thoughts advanced to the state of science."
>
> : William Thomson, Lord Kelvin, 1824-1907.
> ----
> Reg, G4FGQ

--
the difference between intelligence and stupidity is that intelligence has its limits.

3078. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 12:28:20 UTC
From: Eric Oyen - N7ZZT <n7zzt@127.0.0.1>
Message-ID: <pan.2004.02.24.12.28.20.106997@127.0.0.1>
Source record: 99450

well, any place in the universe is as good as any other. free space
implies just that, free space (and most of the formulas are written for
this as a "theoretical construct".

Now, you start throwing earth ground into the problem at some place under
1 wavelength and the Q of the antenna will change (ground as a reflector?)
at the correct distance from a "[erfect ground", the Q can go as high as
50.

I wouldn't even want to try and calculate this at the event horizon of a
black hole (too many other variables to account for).

DE N7ZZT

On Tue, 24 Feb 2004 03:20:29 +0000, Tdonaly wrote:

> Cecil wrote,
>>
>>Reg Edwards wrote:
>>> How many of you can calculate (yes, a number is required) the Q of a
>>> 1/2-wave dipole at resonance?
>>> Dipole length = 10 metres.
>>> Dipole diameter = 1 millimetre.
>>> I wonder how long it will be before someone comes up with an answer.
>>
>>Off the top of my head, I would estimate a Q of about 10. --
>>73, Cecil http://www.qsl.net/w5dxp
>>
>>
>>
> Off the top of your head it may well be 10, but what about somewhere else
> in the universe, what will it be there? 73,
> Tom Donaly, KA6RUH

--
the difference between intelligence and stupidity is that intelligence
has its limits.

3079. Re: 04 Grand Cherokee Fuel Pump Noise.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 13:53:28 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <sHI_b.24654$cE7.137@newssvr24.news.prodigy.com>
Source record: 99451

"Bob" <bschmidt12@charter.net> wrote in message
news:8fde2bbd.0402231927.46944227@posting.google.com...
> I have determined I am getting noise from my fuel pump in a 04 Grand
> Cherokee. I want to bypass the fuel pump electrical wires, but need
> their location and color code.
>
> Anyone have this info??

Try over in rec.auto.makers.jeep+willys... someone
there probably has the factory manual. I bought the
AllDataDIY subscription for my (non-G) Cherokee, it includes
extensive wiring diagrams, with a one-year subscription
costing about $25. The link:

http://www.alldatadiy.com/

well worth the price.

--
Steve
KI5YG
.

3080. Re: 04 Grand Cherokee Fuel Pump Noise.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 13:59:34 UTC
From: Vito <vito@crosslink.net>
Message-ID: <403b58c9$0$3511@dingus.crosslink.net>
Source record: 99452

"Bob" <bschmidt12@charter.net> wrote in message
news:8fde2bbd.0402231927.46944227@posting.google.com...
> I have determined I am getting noise from my fuel pump in a 04 Grand
> Cherokee. I want to bypass the fuel pump electrical wires, but need
> their location and color code.
>
> Anyone have this info??
>
> TNX
> Bob, WA9JDR

Dark Green / Red and Black according to my Haynes manual but it only goes
up to 2000.

3081. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 14:04:56 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <cSI_b.24659$NH7.22258@newssvr24.news.prodigy.com>
Source record: 99453

"Edmund H. Ramm" <ehramm@dk3uz.ampr.org> wrote in message
news:HtEJMn.1Fp@dk3uz.ampr.org...
> In <-L-dnd19z7VyJ6jdRVn-hw@comcast.com> "CW" <clinton.magers@comcast.net>
writes:
>
> >That is the generally excepted definition.
>
> >" Stephen Cowell" <scowell@sbcglobal.net> wrote in message
> >news:ZpiZb.23028$955.11050@newssvr24.news.prodigy.com...
> >>
> >> For me, it has to be over a wavelength
> >> before I'll call it 'long' wire... 1/4 wave is
> >> *definitely* not a long wire, by any stretch
> >> of the imagination.
> >> --
> >> Steve
> >> KI5YG
>
> On the contrary, it is the generally accepted definition.

You're saying that a 1/4 wave wire is 'long'?

--
Steve
KI5YG
.

3082. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 14:17:01 UTC
From: "Dan Richardson"
Message-ID: <70nm30dvaeruals3iph5b1s3rt6c71frkn@4ax.com>
Source record: 99454

On Mon, 23 Feb 2004 17:47:15 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Not in the "grand scheme of things", perhaps, but a resonant antenna
>extracts more energy when swept by a traveling wave than an
>off-resonance conductor does at the same distance from the transmitter.

So according to you, as an example, a resonate 1/4 or 1/2 monopole
will extract more energy than a non-resonate 5/8-wave monopole.

Enjoy your dreams, I'm QRT

73
Danny, K6MHE

3083. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 14:50:37 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <ffmdnV7qUbQK-abdRVn-sQ@comcast.com>
Source record: 99455

How about 14.6/(15.35 - 14) = 10.8 ?

Tam/WB2TT

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c1e2k9$45b$1@hercules.btinternet.com...
>
> How many of you can calculate (yes, a number is required) the Q of a
> 1/2-wave dipole at resonance?
>
> Dipole length = 10 metres.
> Dipole diameter = 1 millimetre.
>
> All those who have no idea where to begin this elementary task, that's
most
> of you, will now, as usual, accuse me of "Trolling".
>
> I wonder how long it will be before someone comes up with an answer.
>
> ================================
>
> "When you can measure what you are speaking about and express it in
numbers
> you know something about it. But when you cannot measure it, when you
cannot
> express it in numbers, your knowledge is of a meagre and unsatisfactory
> kind. It may be the beginning of knowledge but you have scarcely in your
> thoughts advanced to the state of science."
>
> : William Thomson, Lord Kelvin, 1824-1907.
> ----
> Reg, G4FGQ
>
>

3084. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 15:11:15 UTC
From: Scott Downey <sdowney717@msn.com>
Message-ID: <c1fpj0$1h4br4$1@ID-150959.news.uni-berlin.de>
Source record: 99456

Sounds right to me, thanks.
How well does this antenna work for you?
I have not installed the radio yet.

"CW" <clinton.magers@comcast.net> wrote in message
news:OKWdnbwOQ7WwnKbdRVn-vw@comcast.com...
> Cecil is not fallowing along. I have an antenna just like yours and it is
> designed to work without a ground plane. It is designed for boats.
> "Scott Downey" <sdowney717@msn.com> wrote in message
> news:c1do6n$1h9i38$1@ID-150959.news.uni-berlin.de...
> > Are you saying it wont work?
> > Why would the manufacturer make a marine CB antenna knowing it would be
> put
> > on a fiberglass boat knowing that most people would simply hook up the
> coax
> > and see it it works.
> > I read in the marine catalogs about marine CB antennas designed for
boats
> > and not to be concerned about a ground plane.
> > Anyone know the answer?
> >
> >
> > "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> > news:403a429e_3@corp.newsgroups.com...
> > > Scott Downey wrote:
> > > > The boat is mostly wood and fiberglass, only metal is railings.
> > >
> > > To what is the coax shield going to be tied? If that antenna is
> > > an electrical 1/4 wavelength, where's the ground plane?
> > > --
> > > 73, Cecil http://www.qsl.net/w5dxp
> > >
> > >
> > >
> > > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > > -----== Over 100,000 Newsgroups - 19 Different Servers! =-----
> >
> >
>
>

3085. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 16:07:27 UTC
From: richardharrison@webtv.net
Message-ID: <22643-403B76BF-484@storefull-3256.bay.webtv.net>
Source record: 99458

Steve Nosko wrote:
"First, my "class C" model is as follows: I liken it to digital or "switched modes"."

I do too.

"----Second, it is the RMS current through the tube which will waste power, so that is what we must be concerned with."

I don`t believe current through a Class C amplifier consists of an ordinary sine wave. I think it consists of short unidirectional pulses. The tuned "tank circuit" is the source of sine waves.

RMS is the effective value, not the average value, of an a-c ampere. It is defined as 0.707X the peak value of the waveform. It is derived from the average of the squared current over a half cycle, as the heating value of an ampere is proportional to the current squared.

Speaking inversely, the ratio of maximum to effective value for a sine wave is 1.414, which is the square root of 2.

Ordinarily, with nonsinusoidal currents, the ratio of maximum to effective value is not the square root of 2.

Best regards, Richard Harrison, KB5WZI

3086. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 16:09:03 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <tsqdnRgybIB066bdRVn-vw@comcast.com>
Source record: 99457

No. Reread the thread.
" Stephen Cowell" <scowell@sbcglobal.net> wrote in message
news:cSI_b.24659$NH7.22258@newssvr24.news.prodigy.com...
>
> "Edmund H. Ramm" <ehramm@dk3uz.ampr.org> wrote in message
> news:HtEJMn.1Fp@dk3uz.ampr.org...
> > In <-L-dnd19z7VyJ6jdRVn-hw@comcast.com> "CW"
<clinton.magers@comcast.net>
> writes:
> >
> > >That is the generally excepted definition.
> You're saying that a 1/4 wave wire is 'long'?
> __
> Steve
> KI5YG
> .
>
>

3087. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 16:26:44 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403b7c3b_2@corp.newsgroups.com>
Source record: 99459

Dan Richardson < wrote:
> So according to you, as an example, a resonate 1/4 or 1/2 monopole
> will extract more energy than a non-resonate 5/8-wave monopole.

A non-resonant length physical 5/8WL monopole is made into an
electrically resonant monopole with the addition of the base
loading coil.

Without that resonating coil at the base, not much energy would
be delivered to a 50 ohm receiver or accepted from a 50 ohm
transmitter.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3088. Re: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 16:31:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403b7d5c$1_2@corp.newsgroups.com>
Source record: 99460

Richard Harrison wrote:
> I don`t believe current through a Class C amplifier consists of an
> ordinary sine wave. I think it consists of short unidirectional pulses.
> The tuned "tank circuit" is the source of sine waves.

Yep, the Class C amp is like the energy pulse from a pendulum
clock spring. The tank/filter circuitry is like the pendulum.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3089. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 16:34:46 UTC
From: richardharrison@webtv.net
Message-ID: <22644-403B7D26-190@storefull-3256.bay.webtv.net>
Source record: 99461

Dan, K6MHE wrote:
"So according to you, as an example, a resonate 14 or 1/2 monopole will extract more energy than a non-resonate 5/8 monopole."

A 5/8-wavelength monopole has a directive gain over a 1/4-wavelength self-resonant monopole.

However, the 5/8-wavelength monopole must be resonated externally to remove its reactance to take advantage of its extended length so that the volts per meter it is exposed to can make a large current flow in the antenna.

Best regards, Richard Harrison, KB5WZI

3090. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 16:45:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <maum30pbikbad1epmvvvb9hupf0ah0l3j0@4ax.com>
Source record: 99462

On Tue, 24 Feb 2004 06:17:01 -0800, Dan Richardson
<<ChangeThisToCallSign>@mendolink.com> wrote:

>On Mon, 23 Feb 2004 17:47:15 -0600 (CST), richardharrison@webtv.net
>(Richard Harrison) wrote:
>
>>Not in the "grand scheme of things", perhaps, but a resonant antenna
>>extracts more energy when swept by a traveling wave than an
>>off-resonance conductor does at the same distance from the transmitter.
>
>So according to you, as an example, a resonate 1/4 or 1/2 monopole
>will extract more energy than a non-resonate 5/8-wave monopole.
>
>Enjoy your dreams, I'm QRT
>
>73
>Danny, K6MHE

Hi All,

As a test of modeling and actual, real data, I put this to the test:

1.) I established two full quarter wave antennas;
2.) each with a set of 48 radials;
3.) tuned to 1.7 MHz;
4.) separated them by 20KM (>100 wavelengths);
5.) set one to have a source of 1000W;
6.) loaded the other at the base with a 50Ohm resistor;
all in EZNEC with enough segments to hit the 500 limit.

When I called for the load data, EZNEC calculated it to be:
Power = 0.0008166 watts
(already confirmed accurate to FCC Field trials)

THEN, I increased the same antenna's length to 5/8th Wavelength
and observed its load's response to the identical field:
Power = 0.0001185 watts

Through the simple observation of power ratios, the untuned 5/8th
Wavelength antenna suffers to the tune of:
-8.38dB

Now, if this discussion revolves on the myopic consideration of
resonant antennas, devoid of other issues like tuners, matching, lines
that connect and so forth; then it is painfully obvious that NO
ANTENNA absorbs ANY POWER (by virtue of the load having been defined
out of the problem). This is further confirmed in the daily

experience of a million yagi owners whose passive elements offer just exactly that lossless coupling. When interfaced to a real load, any SWLer will confirm through simple tuning (and through modeling) that the received power peaks through adjustment. The 5/8th antenna is no different.

73's
Richard Clark, KB7QHC

3091. Good Moble HF Antenna - Suggestions / Comments?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 17:18:59 UTC
From: KD5SRL <***@***.***>
Message-ID: <mjvm30hlrgcs1n9qvhaqntchngkiq9175h@4ax.com>
Source record: 99463

Hey Folks,

I'm getting ready to trade in the old Ford truck and purchase a new Honda Element or CR-V. I'll be looking to place something like the YAESU - FT-857 (I've been a Kenwood man forever) and need to match it up to a nice screw driver type antenna. I need something that I can get into my garage when it is off in low position without destroying it or the paint on my garage door.

I've taken a look at High Sierra "Side Kick"
3.5 MHz to 60 MHz with our 3 foot whip.
1.5:1, or less, typical SWR
200 watt power rating to the antenna
Just over 4 feet when fully retracted
About 4.5 feet when fully extended
It weighs about 2 pounds
High-Q phenolic coil and no hazardous Beryllium finger stock
Comes with our Black Hawk Motor

Does anyone have any experience with High Sierra or comments or suggestions for a good HF mobile rig set up. Size matters! I need something small but good. I know... I know... I want my cake and eat it too but if this is too much to ask... I'd love to hear from other hams that have experience with similar situations.

73's

Paul - KD5SRL

3092. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 18:11:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403b93be$1_7@corp.newsgroups.com>
Source record: 99464

Richard Harrison wrote:
> However, the 5/8-wavelength monopole must be resonated externally to
> remove its reactance to take advantage of its extended length so that
> the volts per meter it is exposed to can make a large current flow in
> the antenna.

In other words, the linear system transfers the most energy when the source (the antenna) is matched to the load (the receiver). It cannot transfer more than 1/2 the energy, but it can transfer less.

It is conceivable that a receiver's input impedance could be optimized to the feedpoint impedance of a 5/8WL monopole but I don't know of any receiver like that.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3093. Re: Good Moble HF Antenna - Suggestions / Comments?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 18:11:57 UTC
From: Incognito <BLB@sero.net>
Message-ID: <NtM_b.3060$Zp.3011@fed1read07>
Source record: 99465

Have u seen the eHam Reviews of High Sierra Antennas ??

If not go to URL:
http://www.eham.net/reviews/products/12

Over 50 reviews there by users.

--
Incognito By Necessity (:-(

If you can't convince them, confuse them.
- - -Harry S Truman

"KD5SRL" <***@***.***> wrote in message
news:mjvm30hlrgcs1n9qvhaqntchngkiq9175h@4ax.com...
> Hey Folks,
>
> I'm getting ready to trade in the old Ford truck and purchase a new
> Honda Element or CR-V. I'll be looking to place something like the
> YAESU - FT-857 (I've been a Kenwood man forever) and need to match it
> up to a nice screw driver type antenna. I need something that I can
> get into my garage when it is off in low position without destroying
> it or the paint on my garage door.
>
> I've taken a look at High Sierra "Side Kick"
> 3.5 MHz to 60 MHz with our 3 foot whip.
> 1.5:1, or less, typical SWR
> 200 watt power rating to the antenna
> Just over 4 feet when fully retracted
> About 4.5 feet when fully extended
> It weighs about 2 pounds
> High-Q phenolic coil and no hazardous Beryllium finger stock
> Comes with our Black Hawk Motor
>
> Does anyone have any experience with High Sierra or comments or
> suggestions for a good HF mobile rig set up. Size matters! I need
> something small but good. I know... I know... I want my cake and eat
> it too but if this is too much to ask... I'd love to hear from other
> hams that have experience with similar situations.
>
> 73's
>
> Paul - KD5SRL
>

3094. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 18:27:14 UTC
From: -Rev Jones <rpjones@GETOUTverizon.net>
Message-ID: <6IM_b.5227$ZV1.4293@nwrdny01.gnilink.net>
Source record: 99466

They work I have even seen apt window antennas but range is awful.
The best thing I found is mount with 2 U bolts or s steel hose clamps to the stern railing as close to the centerline as possible (most those antennas have a brass plated sleeve at the base). It's a sailboat when the gate s closed you have plenty of ground plain.
Very difficult to get an acceptable polar pattern on Boats.
If you have a large boat use a 2 co-phased classic Shakespeare "Super Big Stick" (21 ft sleeve antenna) a-side and above the pilot house is the ultimate
2 co-phased antennas on the rear port and starboard stern rails work good also.

If you can afford a boat dont be cheap with "Rube" rigged antenna systems, it can mean a life or death situation

"Scott Downey" <sdowney717@msn.com> wrote in message
news:c1do6n$1h9i38$1@ID-150959.news.uni-berlin.de...
> Are you saying it wont work?
> Why would the manufacturer make a marine CB antenna knowing it would be put
> on a fiberglass boat knowing that most people would simply hook up the coax
> and see it it works.
> I read in the marine catalogs about marine CB antennas designed for boats
> and not to be concerned about a ground plane.
> Anyone know the answer?
>
>
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:403a429e_3@corp.newsgroups.com...
> > Scott Downey wrote:
> > > The boat is mostly wood and fiberglass, only metal is railings.
> >
> > To what is the coax shield going to be tied? If that antenna is
> > an electrical 1/4 wavelength, where's the ground plane?
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 100,000 Newsgroups - 19 Different Servers! =-----
>
>

3095. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 18:28:35 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1g57v$ae8$1@newshost.mot.com>
Source record: 99467

Hi Richard...

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:22643-403B76BF-484@storefull-3256.bay.webtv.net...
> [...]
> > "----Second, it is the RMS current through the tube which will waste
> > power, so that is what we must be concerned with."
>
> I don`t believe current through a Class C amplifier consists of an
> ordinary sine wave.

And I didn't say that it does nor do I believe it does. I'm inclined to take my 100MHz storage scope to to the 6146's of my TS830s and see for myself.
Your words imply (at least I infer) you are thinking that only a sine wave has an RMS value. Every wave of any shape has an effective or RMS value - its heating or "power causing" value.

> [...] I think it consists of short unidirectional pulses.
> The tuned "tank circuit" is the source of sine waves.

This certainly has to be correct. The tank will most likely cause some sine-like VOLTAGE waveform, but the tube current has to be pulses of some shape. This is a very timely discussion in view of the AC power meter QST article and the extensive investigation I just completed on several pulse shapes..

> RMS is the effective value, not the average value, of an a-c ampere.

I will differ here. The RMS value is more appropriately described as the power producing value of ANY wave form. Pulses can produce heat just as well as sine wave AC. We all know this from a practical view since tubes can only conduct in one direction and the plates DO get hot.

>

> ...as the heating
> value of an ampere is proportional to the current squared.

This is actually a simplification. P=ExI Power is the product of voltage and current *only*. Because this is a second order effect, in a resistance it can be related to either voltage squared or current squared... because that captures the second order character. Maybe there's a better way to say it mathematically, but I don't know it.
When we get to non sine shapes, then we have to fall back on the actual definition. root [avg of square] ...with the integral and all.
http://www.ultracad.com/rms.pdf

> [...snip...]
>
> Ordinarily, with nonsinusoidal currents, the ratio of maximum to
> effective value is not the square root of 2.
> Best regards, Richard Harrison, KB5WZI

Doing the math for pulses with the shape of sine, triangle (a single slope with sudden end) and trapezoid (a sudden start to one level then a slope to a peak and a sudden end), I decided to look at the RMS to AVERAGE ratio since average is what a common meter will measure in Bob Shrader's article (AC watt meter Jan 04 QST).
I was particularly interested in the sine-shaped pulses of various duty cycle because the current of common power supplies occurs in short pulses with a sine-like shape that are near the peak of the voltage waveform.
It was interesting that for all these shapes, this ratio was very similar. One relatively simple thing to understand which came out of the analysis was that the average value is directly proportional to the duty cycle as you might reasonably postulate. Where duty cycle is the ratio of "on" time to off time. Where "on" time is the time that ANY current flows. Whereas the RMS is proportional to the Square root of the duty cycle. e.g. drop the duty cycle to half and the RMS drops to .707.

I have to do some verification, but it sure looks as though Bob's numbers can be as much as three times what he quoted, depending on the waveshape and some measurements I made.

http://www.irf.com/technical-info/an949/append.htm
Trapezoid=rectangular. Also for the phase controlled sine, the things that look like tau and a small n are both pi i.e. sin [pi x (1-D)] cos [pi x (1-D)] and denominator of 2 x pi

Some average & RMS values here.
http://home.san.rr.com/nessengr/techdata/rms/rms.html

More (better) average formulas:
http://www.st.com/stonline/books/pdf/docs/3715.pdf
NOW I know where the average value of a sine wave comes from = (2/pi)
The Greek delta = d.

A calculator for RMS:
http://www.geocities.com/CapeCanaveral/Lab/9643/rms.htm

3096. Re: Help with balanced tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 19:56:02 UTC
From: g_c_back@hotmail.com
Message-ID: <6acc4972.0402241156.2c48ed78@posting.google.com>
Source record: 99468

Try McMaster-Carr... should be able to find whatever you need.

"ralphy" <k4ffa@comcast.net> wrote in message news:<j6SdnRM86Z5Xm6TdRVn-sQ@comcast.com>...
> I am in the process of building a balanced tuner, 2 rollers and capacitor,
> I am looking for 2 pulleys and belt to connect the rollers together.
>
> Can anyone point me in the right direction to who might carry these items?
> I have searched google and only came up with only 2 companies that might
> carry?
>
> Please reply to me off news group.
>
> thanks in advance
>
> Phillip KB4I

3097. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 20:16:57 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <BeSdnShpjJidLKbd4p2dnA@comcast.com>
Source record: 99369

Don't know, never tried it. Bought it for a specific application about ten
years ago. A change of plans made it unnecessary.

"Scott Downey" <sdowney717@msn.com> wrote in message
news:c1fpj0$1h4br4$1@ID-150959.news.uni-berlin.de...
> Sounds right to me, thanks.
> How well does this antenna work for you?
> I have not installed the radio yet.
>
> "CW" <clinton.magers@comcast.net> wrote in message
> news:OKWdnbwOQ7WwnKbdRVn-vw@comcast.com...
> > Cecil is not fallowing along. I have an antenna just like yours and it
is
> > designed to work without a ground plane. It is designed for boats.
> > "Scott Downey" <sdowney717@msn.com> wrote in message
> > news:c1do6n$1h9i38$1@ID-150959.news.uni-berlin.de...
> > > Are you saying it wont work?
> > > Why would the manufacturer make a marine CB antenna knowing it would
be
> > put
> > > on a fiberglass boat knowing that most people would simply hook up the
> > coax
> > > and see it it works.
> > > I read in the marine catalogs about marine CB antennas designed for
> boats
> > > and not to be concerned about a ground plane.
> > > Anyone know the answer?
> > >
> > >
> > > "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> > > news:403a429e_3@corp.newsgroups.com...
> > > > Scott Downey wrote:
> > > > > The boat is mostly wood and fiberglass, only metal is railings.
> > > >
> > > > To what is the coax shield going to be tied? If that antenna is
> > > > an electrical 1/4 wavelength, where's the ground plane?
> > > > --
> > > > 73, Cecil http://www.qsl.net/w5dxp
> > > >
> > > >
> > > >
> > > > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > > > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > > > -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

> > >
> > >
> >
> >
>
>

3098. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 20:30:02 UTC
From: richardharrison@webtv.net
Message-ID: <22723-403BB44A-548@storefull-3253.bay.webtv.net>
Source record: 99372

I wrote:
"RMS is the effective value, not the average value of an a-c ampere.

Steve Nosko responded:
"I will differ here. The RMS value is more appropriately described as
the power producing value of ANY wave form.."

A periodic function is not necessarily a sine wave but when I look up
alternating current in my dictionary, I find the diagram of a sine wave
and it is tagged: "alternating current".

By fourier series, any complex waveform may be resolved into a
fundamental plus a finite number of terms involving its harmonics.

My electronics dictionary says:
"The rms value of a periodic quantity is equal to the square root of the
average of the squares of the instantaneous values of the quantity taken
throughout one period. If that quantity is a sinewave, its rms amplitude
is 0.707 of its peak value."

My dictionary also says:
"Effective current---That value of alternating current which will give
the same heating effect as the corresponding value of direct current.
For sine-wave alternating currents, the effective value is 0.707 times
the peak value."

The average value for one alternation of a sine wave is 2/pi or 0.637
times the maximum value.

I make lots of mistakes, but fortunately, I don`t think I made any of
consequence in this thread. I probably didn`t go into enough detail, but
I was just an engineer, not a professor.

Best regards, Richard Harrison, KB5WZI

3099. Re: Help with balanced tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 20:30:59 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <c1gca3$1e4g$1@f04n12.cac.psu.edu>
Source record: 99370

A company called "small parts" is also a good place to look for small motion control hardware.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

"Thumbbuster" <g_c_back@hotmail.com> wrote in message
news:6acc4972.0402241156.2c48ed78@posting.google.com...
> Try McMaster-Carr... should be able to find whatever you need.
>
> "ralphy" <k4ffa@comcast.net> wrote in message
news:<j6SdnRM86Z5Xm6TdRVn-sQ@comcast.com>...
> > I am in the process of building a balanced tuner, 2 rollers and
capacitor,
> > I am looking for 2 pulleys and belt to connect the rollers together.
> >
> > Can anyone point me in the right direction to who might carry these
items?
> > I have searched google and only came up with only 2 companies that might
> > carry?
> >
> > Please reply to me off news group.
> >
> > thanks in advance
> >
> > Phillip KB4I

3100. Doppler DF whip length

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 20:41:56 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <pbdn30ha0sbvs37q1jqapnr4gmmniaqsjh@4ax.com>
Source record: 99371

I am building the Ramsey Electronics DDF-1 doppler DF. This uses
four 1/4 wave whip antennas on the corners of a square approximately
1/4 wavelength on a side. These are connected to a rooftop switcher
that activates each antenna in sequence. See:
http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=DDF1

My question is, How dependent is this rig on proper whip length to
function properly? Does sensitivity suffer if my whips are
significantly too short, or does the thing simply stop working
properly?

I want to use it for 6M. I have the room for the 55" antenna spacing,
but my antennas are only around 24" long.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

3101. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 21:29:23 UTC
From: Scott Downey <sdowney717@msn.com>
Message-ID: <c1gfne$1fknvh$1@ID-150959.news.uni-berlin.de>
Source record: 99373

I am not too concerned, I have VHF primarily and am just interested in adding CB to the boat for fun. I have a handheld GE CB that is for fun and will be used to talk to the main CB in the boat.

We do use a cell phone, I called the CG on it when I was in a storm and hit a pier which destroyed my VHF antenna.

"-Rev Jones" <rpjones@GETOUTverizon.net> wrote in message news:6IM_b.5227$ZV1.4293@nwrdny01.gnilink.net...
> They work I have even seen apt window antennas but range is awful.
> The best thing I found is mount with 2 U bolts or s steel hose clamps to the
> stern railing as close to the centerline as possible (most those antennas
> have a brass plated sleeve at the base). It's a sailboat when the gate s
> closed you have plenty of ground plain.
> Very difficult to get an acceptable polar pattern on Boats.
> If you have a large boat use a 2 co-phased classic Shakespeare "Super Big
> Stick" (21 ft sleeve antenna) a-side and above the pilot house is the
> ultimate
> 2 co-phased antennas on the rear port and starboard stern rails work good
> also.
>
> If you can afford a boat dont be cheap with "Rube" rigged antenna systems,
> it can mean a life or death situation
>
>
> "Scott Downey" <sdowney717@msn.com> wrote in message
> news:c1do6n$1h9i38$1@ID-150959.news.uni-berlin.de...
> > Are you saying it wont work?
> > Why would the manufacturer make a marine CB antenna knowing it would be
> put
> > on a fiberglass boat knowing that most people would simply hook up the
> coax
> > and see it it works.
> > I read in the marine catalogs about marine CB antennas designed for boats
> > and not to be concerned about a ground plane.
> > Anyone know the answer?
> >
> >
> > "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> > news:403a429e_3@corp.newsgroups.com...
> > > Scott Downey wrote:
> > > > The boat is mostly wood and fiberglass, only metal is railings.
> > >

> > > To what is the coax shield going to be tied? If that antenna is
> > > an electrical 1/4 wavelength, where's the ground plane?
> > > --
> > > 73, Cecil http://www.qsl.net/w5dxp
> > >
> > >
> > >
> > > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > > -----== Over 100,000 Newsgroups - 19 Different Servers! =-----
> >
> >
>

3102. Re: GAP Super C antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 21:50:29 UTC
From: jgboyles@aol.com
Message-ID: <20040224165029.03211.00000302@mb-m23.aol.com>
Source record: 99374

>If you had a situation where your space is limited adn a
>vertical seems to be the last option, do you have any other way you would
>go?
I do have limited space. I use an attic antenna consisting of 100' zig-zag doublet fed with 450 ohm ladder line and a homebrew tuner. I have ran 1200 watts pep on 80m and 40m with this antenna. Of course no one can watch TV or talk on the phone, or do anything else that involves electronics in the house while I am on the air.
I have a small 20' X 56' back yard. I have used a zig-zag doublet inverted vee style with apex at 40' and had pretty good results on 80m-10m.

I
73 Gary N4AST

3103. Re: Doppler DF whip length

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 21:50:39 UTC
From: Dave <noone@nowhere.com>
Message-ID: <qeGdnXRRtfmqWqbdRVn-uw@crocker.com>
Source record: 99375

"Ken" <cprstn54zz@att.net> wrote in message
news:pbdn30ha0sbvs37q1jqapnr4gmmniaqsjh@4ax.com...
> I am building the Ramsey Electronics DDF-1 doppler DF. This uses
> four 1/4 wave whip antennas on the corners of a square approximately
> 1/4 wavelength on a side. These are connected to a rooftop switcher
> that activates each antenna in sequence. See:
>
http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=DDF1
>
> My question is, How dependent is this rig on proper whip length to
> function properly? Does sensitivity suffer if my whips are
> significantly too short, or does the thing simply stop working
> properly?
>
> I want to use it for 6M. I have the room for the 55" antenna spacing,
> but my antennas are only around 24" long.
>

shorter whips would reduce sensitivity, just as they would for a simple
receiver. the whip spacing can also be reduced, it will just reduce the
direction detection sensitivity as the spacing shrinks. one important thing
is that you don't want to use one that is spaced for 6m on a higher
frequency band... if the spacing gets too much more than 1/4 wave or
approaches 1/2 wave the detector may not respond properly and the direction
indication could be unstable or 180 out from where it should be.

3104. Antenna Analyzer suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 22:18:48 UTC
From: Joel Dorfan <bdorfan@MAPSicon.co.za>
Message-ID: <caadnXJWlruzU6bdRVn-sQ@is.co.za>
Source record: 99376

Hi,
I am looking for an MFJ/Autek type antenna analyzer but VHF needs to be 175 to 240 Mhz and UHF about 450 to 800 Mhz.
None of the above products will cover that range and they have emailed me to say that the units cant be upgraded to do so.

I have also emailed Kuranishi without a reply yet.

Do any of you know about other manufacturers who have analysers that will go up to 800Mhz?

I dont mind paying a little more than the MFJ/Autek units but dont want to pay Network Analyzer type prices.

Thanks

Joel

3105. 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 22:53:35 UTC
From: Paul <nospam@pllleaaseeee.com>
Message-ID: <c1gklf$3pj$1@hercules.btinternet.com>
Source record: 99377
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

Hi,

I would like to reposition my 2M/70cm Vertical (Diamond X50) to a higher position.

One option is to mount it above the TV aerial, I understand that the signal radiation below the antenna is very small, does anyone have any experience of a similar setup?

If so what kind of distances would you suggest between the antennae?

Obviously my main concern is TVI and poorer performance from the Diamond due to its close proximity to the TV aerial.

I'm using RG-213 for the Diamond and normal coax for the TV.

Any help or suggestions would be appreciated.

Cheers,

Paul

3106. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 22:54:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lqin30hmen031qfefojttcqnufc7ticuv5@4ax.com>
Source record: 99378

On Tue, 24 Feb 2004 14:30:02 -0600 (CST), richardharrison@webtv.net (Richard Harrison) wrote:

>I make lots of mistakes, but fortunately, I don`t think I made any of
>consequence in this thread. I probably didn`t go into enough detail, but
>I was just an engineer, not a professor.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

The one I noted (mistake) was in your reference:
> It is derived from the average of the squared current over a half cycle which necessarily forces both a doubling, and a symmetry that is not demanded of native RMS determinations. It then follows that the commonplace illustration of the mains Sine wave completes the illusion. Few EE students migrated beyond this simplicity because the world is nasty place to measure power.

RMS by and of its mathematical nature through the squaring operation negates any requirement for "half cycle" determinations (no issue of negatives). It also preserves the natural order (of two forced by the half). If you think about it, any biased sine wave impinging upon a load imparts the power loss of the bias at the 180ï¿½ portion of the Sine cycle. RMS copes with this, the notion of half cycles does not.

The simple determination of RMS is the graphical integration of the area under the curve. There are as many "correction factors" for RMS as there are shapes, and they all derive from this simple concept.

When the computational horsepower requirement becomes enormous (there are many here that give up too easily with complexity); it is the provence of the "Old School" to suggest that since RMS is all based on the notion of power, you simply measure the caloric result and ignore shape altogether. This may be done with thermo-electric piles or other measurable property transformers that perform the complexity of integration through physics*. I can anticipate those who dearly embrace the complexity that they shudder to face (such contradictions of their love-hate relationships) when I hear Crest, or pulse/power factor (or duty cycle) uttered. Clearly the problem will have migrated from Power to some other consideration, but is dressed as an RMS debate.

73's
Richard Clark, KB7QHC

* The Chaberlain and Hookum meter; the Sangamo meter, the Wright Demand meter; the GE Demand meter; the Edison chemical meter (where the weight of a cathodic reduction revealed 1.224 grams = one ampere-hour)...

3107. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-24 23:18:14 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403bdbc1_7@corp.newsgroups.com>
Source record: 99379

Richard Harrison wrote:
> If we have a Class C amplifier feeding power to the same antenna and
> enjoying a conjugate match, we can have a source that takes less than
> 50% of the available energy. So, the transmitting antenna system can be
> more efficient than the receiving antenna system, it seems to me.

Comparing a Class C amplifier to a linear receive antenna source is comparing
apples and oranges. If one makes the transmitter Class-A linear (like the
receive antenna is linear) then the antenna is reciprocal for transmit and
receive. (A Class C or Class B or even Class AB *single stage* is not linear).
Putting two of them in push-pull doesn't make the individual single stages linear.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3108. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 00:13:47 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1gpf7bpo1@newshost.mot.com>
Source record: 99381

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:22723-403BB44A-548@storefull-3253.bay.webtv.net...
> I wrote:
> "RMS is the effective value, not the average value of an a-c ampere.
>
> Steve Nosko responded:
> "I will differ here. The RMS value is more appropriately described as
> the power producing value of ANY wave form.."

Richard,

I'm not sure what your point of contention is here for most of these comments. Perhaps I was not clear in my lone objection. All I was correcting was your reference to "a-c ampere". My intent was to point out that pulses to one side of zero also have an RMS value. If you do the "square root ...average...squares..instantaneous values..quantity..throughout one period." thing, you will get it. So therefore, tube's current pulses have some RMS value; and that's what'll heat the tube and cause the efficiency stuff. That's where I was going. If we can define or approximate the shape, then we could calculate an RMS. I wonder if a "true RMS" DVM can handel this?

> A periodic function is not necessarily a sine wave but when I look up
> alternating current in my dictionary, I find the diagram of a sine wave
> and it is tagged: "alternating current".

Sure. I'm ok with that. A sine is indeed one example of a periodic function.

> By fourier series, any complex waveform may be resolved into a
> fundamental plus a finite number of terms involving its harmonics.

Also ok, but not sure how it plays into the RMS discussion. See below.
>
> My electronics dictionary says:
> "The rms value of a periodic quantity is equal to the square root of the
> average of the squares of the instantaneous values of the quantity taken
> throughout one period. If that quantity is a sinewave, its rms amplitude
> is 0.707 of its peak value."

No issue here. (from me, that is) The "average" turns out to be an integration and I had to drag out the son's calc book to remember how to do it to see some of the answers myself.

> My dictionary also says:
> "Effective current---That value of alternating current which will give
> the same heating effect as the corresponding value of direct current.

> For sine-wave alternating currents, the effective value is 0.707 times
> the peak value."

Still none.

> The average value for one alternation of a sine wave is 2/pi or 0.637
> times the maximum value.

Yea. untill I went through the trouble of doing the calculation, I had never known the source of the 0.637 number. Now I know. Pretty cool to actually do it! The integration for this is pretty simple. Took me a few looks to figure out where the pi came from. It's the old indefinite to definite integral thingy.

> I make lots of mistakes, but fortunately, I don`t think I made any of
> consequence in this thread. I probably didn`t go into enough detail, but
> I was just an engineer, not a professor.

I'm not a "professor", just an Enginer and "adjunct faculty" for two community colleges for some years. (that's a fancy name for part time teacher)
73, Steve

3109. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 00:28:57 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1gqbl$d2b$1@newshost.mot.com>
Source record: 99383

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:lqin30hmen031qfefojttcqnufc7ticuv5@4ax.com...

> The one I noted (mistake) was in your reference:
> > It is derived from the average of the squared current over a half cycle
> which necessarily forces both a doubling, and a symmetry that is not
> demanded of native RMS determinations. It then follows that the
> commonplace illustration of the mains Sine wave completes the
> illusion. Few EE students migrated beyond this simplicity because the
> world is nasty place to measure power.
>
> RMS by and of its mathematical nature through the squaring operation
> negates any requirement for "half cycle" determinations (no issue of
> negatives). It also preserves the natural order (of two forced by the
> half). If you think about it, any biased sine wave impinging upon a
> load imparts the power loss of the bias at the 180° portion of the
> Sine cycle. RMS copes with this, the notion of half cycles does not.

I assumed Richard's intent here is that you only have to do the
calculation for one full period of the periodic component to derive the RMS
value - and if it is symmetrical, then only one half period will suffice.
This all assumes a symmetrical AC shape. .. I see no reason why this would
not be true.

However a DC biased periodic shape requires another squaring and root
operation if you capture all the components. It gets a bit more harry

>
> The simple determination of RMS is the graphical integration of the
> area under the curve. There are as many "correction factors" for RMS
> as there are shapes, and they all derive from this simple concept.

Here I'll take issue with the ONE WORD "graphical". You can integrate
if you can describe the function of the wave shape mathematically.

> When the computational horsepower requirement becomes enormous (there
> are many here that give up too easily with complexity); it is the
> provence of the "Old School" to suggest that since RMS is all based on
> the notion of power, you simply measure the caloric result and ignore
> shape altogether. This may be done with thermo-electric piles or
> other measurable property transformers that perform the complexity of
> integration through physics*. I can anticipate those who dearly
> embrace the complexity that they shudder to face (such contradictions
> of their love-hate relationships) when I hear Crest, or pulse/power
> factor (or duty cycle) uttered. Clearly the problem will have
> migrated from Power to some other consideration, but is dressed as an

> RMS debate.
>
> 73's
> Richard Clark, KB7QHC

Yikes! Not sure where you went on that last bit, Richard C...
Now, I ask. Do the power meters on the outside of our houses take all those factors into consideration and REALLY show TRUE watt hours? I have one in the basement and I think I figured out why I was seeing twice the reading I should have (letting a light bulb sit on for awhile) ... I counted the teeth to get the ratio of the gear train, just to find that it is printed (somewhat cryptically) on the face) (I made a two wire / three wire connection error)

73, Steve K9DCI

3110. Re: Doppler DF whip length

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 00:31:06 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1gqfndae1@newshost.mot.com>
Source record: 99382

"Ken" <cprstn54zz@att.net> wrote in message
news:pbdn30ha0sbvs37q1jqapnr4gmmniaqsjh@4ax.com...
> I am building the Ramsey Electronics DDF-1 doppler DF. This uses
> four 1/4 wave whip antennas on the corners of a square approximately
> 1/4 wavelength on a side. These are connected to a rooftop switcher
> that activates each antenna in sequence. See:
>
http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=DDF1
>
> My question is, How dependent is this rig on proper whip length to
> function properly? Does sensitivity suffer if my whips are
> significantly too short, or does the thing simply stop working
> properly?
>
> I want to use it for 6M. I have the room for the 55" antenna spacing,
> but my antennas are only around 24" long.
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

Ken,

Very familiar with the "Doppler" type system. You may very well be
better off with non resonant whips. When you have whips near resonance, you
are subject to the phase shift due to small differences due to being
slightly above or below resonance. A test should be to put all the whips
very close together, in a line and receive a signal from broadside (so all
antennas are equidistant from the source...assuming you have a single path
as from a nearby hand held) Then you verify that the pulses out of the
discriminator are non existent.

Shorter whips mean reduced sensitivity. Not all that desirable in a Doppler
since it suffers already. It is nothing other than receiving a 6M signal on
any other 24" whip.

3111. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 00:36:09 UTC
From: Chauney Baker <kd5jbk@cox.net>
Message-ID: <I4S_b.479$1k.57@okepread01>
Source record: 99380
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

Paul wrote:
> Hi,
>
> I would like to reposition my 2M/70cm Vertical (Diamond X50) to a higher
> position.
>
> One option is to mount it above the TV aerial, I understand that the signal
> radiation below the antenna is very small, does anyone have any experience
> of a similar setup?
>
> If so what kind of distances would you suggest between the antennae?
>
> Obviously my main concern is TVI and poorer performance from the Diamond due
> to its close proximity to the TV aerial.
>
> I'm using RG-213 for the Diamond and normal coax for the TV.
>
> Any help or suggestions would be appreciated.
>
> Cheers,
>
> Paul
>
>
hey there. My sugesstion is the higher you can mount the vertical above
the tv antenna the better. Persinally I would mount the antenna a min.
of 3-5 feet above the TV antenna. Just rember that the higher the
antenna the more loss in the coax. I would also strongly suggest that if
you do mount the vertical above the TV antenna that you invest in some
TVI filters. I think radio shack or you local electronics part store
should have some in stock. (They sould be fairly cheap. $3-$5 each or
something like that)

KD5JBK
Chauncey Baker
EM 15

3112. Re: Long Wire Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 01:26:23 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <0qqdndN4mYQbZKbd4p2dnA@comcast.com>
Source record: 99384

I think reading lessons should be in your future. You're saying that you're right and I'm wrong when we said the same thing?

No, I'm confirming your
> statement (a longwire antenna has to be longer than one wavelength),
> while at the same taking exception to what CW wrote.
>
>

3113. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 01:29:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5atn30hhlmhd7lkfgq8tomau4jb5ehdku4@4ax.com>
Source record: 99385

On Tue, 24 Feb 2004 18:28:57 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:
> I assumed Richard's intent here is that you only have to do the
>calculation for one full period of the periodic component to derive the RMS
>value - and if it is symmetrical, then only one half period will suffice.
>This all assumes a symmetrical AC shape. .. I see no reason why this would
>not be true.

And then you offer in contradiction:

>However a DC biased periodic shape requires another squaring and root
>operation if you capture all the components. It gets a bit more harry

Such is reality. There is no such thing as symmetry, except on the
academic page. However, I am not so pedantic as to suggest that
shortcuts don't abound; simply pedantic enough to point out you don't
make claims to accuracy (admittedly none were offered that I was
responding to) through fudge factors when so many alternatives remove
doubt.

>> The simple determination of RMS is the graphical integration of the
>> area under the curve. There are as many "correction factors" for RMS
>> as there are shapes, and they all derive from this simple concept.
>
> Here I'll take issue with the ONE WORD "graphical". You can integrate
>if you can describe the function of the wave shape mathematically.

Of course, but it is eminently doubtful if you can actually express it
mathematically. Far more here own o'scopes than works of multiple
regression. Graphical analysis is first year engineering stuff out of
drafting class.

>> When the computational horsepower requirement becomes enormous (there
>> are many here that give up too easily with complexity); it is the
>> provence of the "Old School" to suggest that since RMS is all based on
>> the notion of power, you simply measure the caloric result and ignore
>> shape altogether. This may be done with thermo-electric piles or
>> other measurable property transformers that perform the complexity of
>> integration through physics*. I can anticipate those who dearly
>> embrace the complexity that they shudder to face (such contradictions
>> of their love-hate relationships) when I hear Crest, or pulse/power
>> factor (or duty cycle) uttered. Clearly the problem will have
>> migrated from Power to some other consideration, but is dressed as an
>> RMS debate.
>>
>> 73's

>> Richard Clark, KB7QHC
>
> Yikes! Not sure where you went on that last bit, Richard C...
>Now, I ask. Do the power meters on the outside of our houses take all those
>factors into consideration and REALLY show TRUE watt hours? I have one in
>the basement and I think I figured out why I was seeing twice the reading I
>should have (letting a light bulb sit on for awhile) ... I counted the
>teeth to get the ratio of the gear train, just to find that it is printed
>(somewhat cryptically) on the face) (I made a two wire / three wire
>connection error)
>
Hi Steve,

Yikes? Look at your own response to shudder. ;-)

You offer the doubt and then correct your error in the space of three sentences. From that I must suppose it was a rhetorical question, but the "yikes" heading it promises more clarity in response to what you apparently complain of. After all, a complex, compound sentence with ellipses and nested parenthetical statements? You lose points for unpaired braces and lack of punctuation throughout and at the end.

> Do the power meters on the outside of our houses take all those
>factors into consideration and REALLY show TRUE watt hours?
For at least a Century now.

The power companies offer as close to pure symmetry as you could buy. They also offer long term time accuracy to far better than any source short of WWVL.

73's
Richard Clark, KB7QHC

3114. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 02:23:07 UTC
From: richardharrison@webtv.net
Message-ID: <266-403C070B-625@storefull-3252.bay.webtv.net>
Source record: 99386

Steve Nosko wrote:
"I wonder if a "true RMS" DVM can handle this?"

So do I. The true rms meter seems a wonderful development to me.

Steve also wrote:

"Also ok, but not sure how it plays into the RMS discussion."

My speculation is that the effective value of a nonsinusoidal waveform could be found by summation of its sinusoidal constituents.

But, it`s not difficult to find an effective value for not only sinusoidal periodic waveforms but for nonsinusoidal periodic waveforms as well. One can graphically take a large number of equally spaced ordinates of the form, using at least one complete alternation, Richard Clark. Both alternations are not needed but could be used as a minus times a minus is a plus and each of the ordinate values must be squared because power is a function of the current squared, so both alternations when their ordinates are squared produce positive values. Next, we sum the squared ordinate values and divide by the number of ordinates. You get the average value of the squared curve which is what we are looking for.

Or, you can construct the squared curve and integrate the area under the squared curve by using a planimeter. Dividing the area by the baseline length gives the same average value of the squared curve as iusing the graphic ordinates above. Voila: rms.

Unless I`ve opened a new can of worms with this posting, I don`t know of any difference of opinion I have with Steve.

Best regards, Richard Harrison, KB5WZI

3115. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 03:11:10 UTC
From: dplatt@radagast.org
Message-ID: <103o4iekgmegke0@corp.supernews.com>
Source record: 99387
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

>> I would like to reposition my 2M/70cm Vertical (Diamond X50) to a higher
>> position.
>>
>> One option is to mount it above the TV aerial, I understand that the signal
>> radiation below the antenna is very small, does anyone have any experience
>> of a similar setup?
>>
>> If so what kind of distances would you suggest between the antennae?
>>
>> Obviously my main concern is TVI and poorer performance from the Diamond due
>> to its close proximity to the TV aerial.

>hey there. My sugesstion is the higher you can mount the vertical above
>the tv antenna the better. Persinally I would mount the antenna a min.
>of 3-5 feet above the TV antenna. Just rember that the higher the
>antenna the more loss in the coax.

Adding some form of choke balun, or some ferrite beads clamped onto
the outside of the coax, immediately below the antenna, might also be
a good idea. This will reduce the amount of RF which comes back down
the feedline and which might be coupled into the TV antenna.

> I would also strongly suggest that if
>you do mount the vertical above the TV antenna that you invest in some
>TVI filters. I think radio shack or you local electronics part store
>should have some in stock. (They sould be fairly cheap. $3-$5 each or
>something like that)

Standard TVI filters will probably not help matters much. The usual
television TVI filter is a high-pass filter, which will do an
effective job of keeping HF (< 30 MHz) out of the TV system and which
will probably have some effect on 6-meter signals as well. It will be
quite ineffective at keeping 2-meter signals out of the TV, since
these fall right in between the TV-VHF-low and TV-VHF-high bands and
are on the high-pass side of the filter's knee.

There are specialized band-stop which can be installed to "notch out"
the 2-meter signals. They're harder to find than ordinary low-pass
and high-pass filters. You may be able to find a cable-TV notch
filter which will do the job - if you can find one which is designed
to take out cable channels 17-19, that could help matters.

I had severe TVI problems at home due to 2-meter signals getting into
the TV antenna. The problems were noticeable on the TV in the den
(fed directly from the antenna via a splitter), and were very bad on

the several TVs and VCRs in the living room (fed via a cheap Radio Shack distribution amplifier, which was no doubt being overloaded into severe clipping and distortion due to the high RF levels).

The solution I ended up with is a CA7X-144/148 bandstop filter from http://www.tinlee.com - it has a bandstop notch of better than 35 dB between 144 and 148 MHz. Not cheap, but it seems well-built and has cured the TVI problem when I key up one of my 2-meter rigs.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3116. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 03:41:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rm5o30dgcs21q4fle1o08ueqlgqo9h8hcb@4ax.com>
Source record: 99388

On Tue, 24 Feb 2004 20:23:07 -0600 (CST), richardharrison@webtv.net (Richard Harrison) wrote:

>Steve Nosko wrote:
>"I wonder if a "true RMS" DVM can handle this?"
>
>So do I. The true rms meter seems a wonderful development to me.
>

Hi Guys,

The first "True RMS" meter I worked on was from Fluke back in '75. It was broke and I had to fix it, but most of the components had their identification numbers scrubbed off and the schematic at that point was just an outline with gozintas and comesouttas.

Well, Fluke was (is) just up the road from me, and I gave them a call for details. Nocando came the reply. My first lesson in proprietary design. Such technology was to kill for.

Today, I can buy far better from Radio Shack at 1/10th the cost. Still and all, it only works through to voice frequencies (to lazy to grab the spec sheet). If you want more precision/bandwidth, then there are complex (non-digital) math chips that do it in real time through analog multipliers and compressors (log function). One of my tech gurus, Robert Pease of National Semi, challenges most digital designs as a waste of time and energy. He successfully offers analog designs that provide far better stability and accuracy.

73's
Richard Clark, KB7QHC

3117. Re: Newbie, UHF antenna for TV questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 04:00:34 UTC
From: yooser@fluadub.com
Message-ID: <yooser-0AF40A.22031024022004@netnews.comcast.net>
Source record: 99389

In article <0aOdnfPwVrFrGandRVn-hw@look.ca>, "cme" <zcadrian@yahoo.com>
wrote:

> I"m half way between two transmission zones.Perfect situation for a rhombic (without the loading resistor).

3118. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 04:06:50 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <0m7o30tc94mr9fettf4r4ahb3d6n0li2k7@4ax.com>
Source record: 99390

On Tue, 24 Feb 2004 18:36:09 -0600, Chauney Baker <kd5jbk@cox.net>
wrote:

>Paul wrote:
>> Hi,
>>
>> I would like to reposition my 2M/70cm Vertical (Diamond X50) to a higher
>> position.
>>
>> One option is to mount it above the TV aerial, I understand that the signal
>> radiation below the antenna is very small, does anyone have any experience
>> of a similar setup?
>>
>> If so what kind of distances would you suggest between the antennae?
>>
>> Obviously my main concern is TVI and poorer performance from the Diamond due
>> to its close proximity to the TV aerial.
>>
>> I'm using RG-213 for the Diamond and normal coax for the TV.
>>
>> Any help or suggestions would be appreciated.
>>
>> Cheers,
>>
>> Paul
>>
>>
>hey there. My sugesstion is the higher you can mount the vertical above
>the tv antenna the better. Persinally I would mount the antenna a min.
>of 3-5 feet above the TV antenna. Just rember that the higher the
>antenna the more loss in the coax. I would also strongly suggest that if
>you do mount the vertical above the TV antenna that you invest in some
>TVI filters. I think radio shack or you local electronics part store
>should have some in stock. (They sould be fairly cheap. $3-$5 each or
>something like that)
>
>KD5JBK
>Chauncey Baker
>EM 15
I agree with the suggested spacing - just buy a 5 foot section and
you're set, it should 'telescope' right into the top of what you have.
You may wish to consider a lower loss coax as well, the 440 side will
appreciate you for upgrading to something like LMR400 at something
like half or 2/3 your loss with the RG-213.

Howard

3119. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 04:13:07 UTC
From: "Z.Z." <nobody@nowhere.com>
Message-ID: <Xns9499D7D9EDF40nobodynowhere@68.6.19.6>
Source record: 99391
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

Paul wrote:

> I would like to reposition my 2M/70cm Vertical (Diamond X50) to a
> higher position.
>
> One option is to mount it above the TV aerial, I understand that the
> signal radiation below the antenna is very small, does anyone have any
> experience of a similar setup? ...

I've been set up like that for several years with an X510. It's mounted on the top of the same mast as the TV antenna with the TV antenna about 3 ft below the X510. It's all mounted on my chimney about 25 ft up. I run 9913 inside the mast to the X510 (the X510's base fits nicely inside the mast). The TV antenna is an el-cheapo Radio Shack (Tandy) unit fed with RG-6 running down the outside of the mast. I have no problems with it running up to 50W on 2M and about 35W on 70cm. There's no interaction that I can see...no problems with TVI or anything...works quite well. This is in the US...not sure if it would be different in the UK, perhaps due to different TV freqs???

73... Mark AA7TA

3120. antenna among the trees.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 07:26:46 UTC
From: obhiee@my-deja.com
Message-ID: <d65c3680.0402242326.640cb689@posting.google.com>
Source record: 99392

hi!
i'm using a sloping dipole for 20m inclined at about 10 degrees off the horizontal with my rig. the feedbond is not thoroughly collinear to the rest of the dipole but incoming signals are very, very (many many verys here) strong; rarely below a 9.

the thing is, the dipole at it's lower end is from just over my window at about 50 feet up to a tree across from it. now i'm in a moderately noisy environment, hospital next-door, rail tracks a building away on the other side, and boxed in by buildings on 3 sides and a layer of tall-trees closer than all the buildings.

a fellow ham said the proximity of so many trees have an adverse impact on my out-going signals, but i'm not sure.

may i have the opinion of the group please?

regards,
abhishek.

3121. test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 08:06:17 UTC
From: lauradorian <lauradorian@free.fr>
Message-ID: <403c57e6$0$2457$626a14ce@news.free.fr>
Source record: 99393

test sorry 73

3122. What could affect VSWR of antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 08:48:08 UTC
From: ahkit1021@yahoo.com
Message-ID: <74bb84c0.0402250048.3d511f19@posting.google.com>
Source record: 99394

I'm carrying around with a two-way portable UHF radio.
Could the operating condition or environment cause a sudden change of
the VSWR of the antenna?
For example, operating radios at adjacent of generator, machine, or
with high electromagnetic emission area, etc?

3123. EDZ 2 el. question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 10:07:46 UTC
From: Dick <hoogerwaard@wanadoo.nl>
Message-ID: <403c73ea$0$63146$a344fe98@news.wanadoo.nl>
Source record: 99395

I have made a rotatable 44 feet EDZ at about 50 feet high. I use a ldg automatic tuner and it tunes on 6,10,12,15,17,20,30,40 and 80 meters. I am very pleased with the results.

The el. are made from fishings rods and look a bit like a horizontal V form.

As the EDZ has gain on 10 meter would a reflector at 8 feet create more gain and also FB?

And what would be the effect on the other freq. will I also get some gain and FB.?

73 pa3glf

3124. Re: What could affect VSWR of antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 11:57:47 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Fe6dnTgfqcBeEKHdRVn-uQ@crocker.com>
Source record: 99396

"Dummy" <ahkit1021@yahoo.com> wrote in message
news:74bb84c0.0402250048.3d511f19@posting.google.com...
> I'm carrying around with a two-way portable UHF radio.
> Could the operating condition or environment cause a sudden change of
> the VSWR of the antenna?
> For example, operating radios at adjacent of generator, machine, or
> with high electromagnetic emission area, etc?

yes, the materials surrounding the antenna and radio can affect the swr of the antenna. where you hold it, being near metal, holding it sideways vs upright, clipping it on your belt, etc all affect the swr seen by the transmitter.

but other electromagnetic emmissions do not affect the swr.

3125. Re: Butternut info

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 12:46:11 UTC
From: "G.Beat" <now9spamgb@spam.comcast.net>
Message-ID: <mO0%b.57367$4o.75722@attbi_s52>
Source record: 99397

"Paolo Emanuelli IK1QHB" <ik1qhb@libero.it> wrote in message
news:B16_b.24651$Kc3.758612@twister2.libero.it...
> Hi OM
>
> My Butternut HF6V was off the game during ARRL 2004.......
> On 80 m the antenna is mute now, and i belive one or two condenser between
> the 40 and 80m coil was burned (i was made a tune with my PA in 80m at 1
Kw
> with rainy night)
>
> Can somebidy tell me if the problem really is the 200 pf condenser or 68
pf
> condenser, and where can i buy in USA with best price?
>
> Tnx & 73
>
> Paul IK1QHB
>

Here is the Bencher web site (mfg of the Butternut)
http://www.bencher.com/ant_select.html

Manuals for all of their antennas are on the web site (Adobe Acrobat format)

w9gb

3126. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 13:48:10 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <Htn7oA.18x@bath.ac.uk>
Source record: 99398

Paul wrote:

> Hi,
>
> I would like to reposition my 2M/70cm Vertical (Diamond X50) to a higher
> position.
>
> One option is to mount it above the TV aerial, I understand that the signal
> radiation below the antenna is very small, does anyone have any experience
> of a similar setup?
>
> If so what kind of distances would you suggest between the antennae?
>
> Obviously my main concern is TVI and poorer performance from the Diamond due
> to its close proximity to the TV aerial.
>
> I'm using RG-213 for the Diamond and normal coax for the TV.
>
> Any help or suggestions would be appreciated.
>
> Cheers,
>
> Paul
>
>

Are you in the UK or USA? Very different problems between the US VHF TV and UK UHF TV. Advice which is excellent in the US just doesn't apply here. E.g. we no longer have any VHF TV so VHF considerations are not applicable.

UK TV is ~ 470 - 615 MHz (Band IV) and 615 - 860 (Band V) so low Band IV signals are quite close to 70 cms.

Best advice is to try it. If problems arise then there are some fairly simple cures.

You might find
http://www.qsl.net/rsgb_emc/emcleaflets8.html
useful.

vy 73

Andy, M1EBV

3127. Unequal dipole legs on shortened antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 14:05:09 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <hdap30dskqjc46ui43m6r091nnd593iacl@4ax.com>
Source record: 99399

I have a shortened all-band dipole with two loading coils on each leg.
On 80 and 160 it has a very narrow resonance bandwidth that requires a
choice between data (low end) and phone (hi end). I am using a
wide-range manual tuner.

By changing the length of two segments on each side, I can move the
resonant "passband" where I want it on 80 and 160.

Using the antenna outside the passband results in unacceptably huge
(like 99%) feedline losses -- when the feedline is coax. I suspect
that if I shift to ladderline, the losses will just move to my tuner.

What would happen if I adjust one leg for resonance on phone and the
other for resonance on data?

If this would give me 50% of the resonant signal of a balanced
antenna, that would be acceptable.

Ken KC2JDY
Ken
(to reply via email
remove "zz" from address)

3128. Re: antenna among the trees.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 14:17:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <4_OdnUx-eOfVM6HdRVn-vw@comcast.com>
Source record: 99400

I would not worry about the trees on HF. My tribander is at 40 feet. The QTH is surrounded by trees 50 - 100 feet tall; yet, there have been times when European stations have told me I had the strongest signal coming in from the States.

Tam/WB2TT
"Obhiee" <obhiee@my-deja.com> wrote in message
news:d65c3680.0402242326.640cb689@posting.google.com...
> hi!
> i'm using a sloping dipole for 20m inclined at about 10 degrees off
> the horizontal with my rig. the feedbond is not thoroughly collinear
> to the rest of the dipole but incoming signals are very, very (many
> many verys here) strong; rarely below a 9.
>
> the thing is, the dipole at it's lower end is from just over my window
> at about 50 feet up to a tree across from it. now i'm in a moderately
> noisy environment, hospital next-door, rail tracks a building away on
> the other side, and boxed in by buildings on 3 sides and a layer of
> tall-trees closer than all the buildings.
>
> a fellow ham said the proximity of so many trees have an adverse
> impact on my out-going signals, but i'm not sure.
>
> may i have the opinion of the group please?
>
> regards,
> abhishek.

3129. Re: EDZ 2 el. question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 14:24:57 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <m3brnn6xty.fsf@qmc.ph.msstate.edu>
Source record: 99401

>I have made a rotatable 44 feet EDZ at about 50 feet high. I use a ldg
>automatic tuner and it tunes on 6,10,12,15,17,20,30,40 and 80 meters. I am
>very pleased with the results.
>
>The el. are made from fishings rods and look a bit like a horizontal V form.
>
>As the EDZ has gain on 10 meter would a reflector at 8 feet create more gain
>and also FB?
>
>And what would be the effect on the other freq. will I also get some gain
>and FB.?

For 10m, you would use TWO reflectors, each slightly more than a half
wavelength, aligned with the currents in the EDZ. It will look like two
2 element yagis side by side. You probably want the spacing closer than
8 feet. You can also place directors in front of the EDZ.

That will only give you gain and FB on 10. You would need other reflectors
for the other bands, for example a single reflector for 20m would work well.

Torsten
N4OGW

3130. Re: antenna among the trees.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 14:44:01 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <403CB4B1.97392766@cwis.net>
Source record: 99402

Abhishek,
The trees will affect your signal to some small
extent, but so do the buildings around you and the
one you are living in. By the sound of what you
are hearing, it doesn't seem like the trees, buildings,
or whatever, are causing you any real problems. Unless
those strong signals are noise, in which case, those
trees are the ~least~ of your worries.
The 'ideal' location for an antenna is high above
ground and far from any surounding structures. Very
few people have 'ideal' antenna locations, almost all
are a compromise in some way. Yours doesn't sound
unusual, and since it seems to be working well, I wouldn't
change it (well, at least remember how it's arranged so
that you can change ~back~ to it if you do make changes LOL).
'Doc

3131. 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 15:00:59 UTC
From: Gary Boyer <gboyer@columbus.rr.com>
Message-ID: <LM2%b.7744$OE4.2458@fe1.columbus.rr.com>
Source record: 99403

I am looking for suggestions on erecting a first time 160 meter antenna..no, I don't have and tower and no I don't have any antenna modeling software....I am just interested in your thoughts....I have never been on 160 and would just like to try it....tnx...Gary..K8BY..Oh..I just live on a average size city lot....few trees....

3132. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 15:18:44 UTC
From: Andy Cogswell <"SHORECOGS at COMCAST DOT NET">
Message-ID: <poydnVOlGKduIaHdRVn_iw@comcast.com>
Source record: 99404
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

(snip)
> of 3-5 feet above the TV antenna. Just rember that the higher the
> antenna the more loss in the coax. I would also strongly suggest that if
(snip)
>
> KD5JBK
> Chauncey Baker
> EM 15

I do hope you meant to suggest that the longer the length of coax, the greater loss, and not that actual height above the ground affects loss.

In other words, you're not saying that an antenna fed with 50 feet of coax mounted at 10 feet has less loss than an antenna fed with 50 feet of coax at 35 feet, are you?

3133. WTB : eaton ailtech singer antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 15:23:12 UTC
From: maxshiloh@yahoo.com
Message-ID: <8c7550c8.0402250723.59693471@posting.google.com>
Source record: 99405

I looking for the following antennas. They were made by the Eaton/
Ailtech/ singer/ Stoddart companies. If anyone has some that they
would be willing to sell, please e-mail asking price and condition to:
maxshiloh@yahoo.com

94614-1 horn antenna
93491-2 conical log spiral(I need 2 of these)

Thanks,
Mike

3134. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 15:46:32 UTC
From: William Mutch <wcm1@NOSPAM.cornell.edu>
Message-ID: <MPG.1aa68d67d30a7b7e989762@newsstand.cit.cornell.edu>
Source record: 99406

In article <c1e2k9$45b$1@hercules.btinternet.com>,
g4fgq.regp@ZZZbtinternet.com says...
>
> How many of you can calculate (yes, a number is required) the Q of a
> 1/2-wave dipole at resonance?
>
> Dipole length = 10 metres.
> Dipole diameter = 1 millimetre.
>
> All those who have no idea where to begin this elementary task, that's most
> of you, will now, as usual, accuse me of "Trolling".
>
> I wonder how long it will be before someone comes up with an answer.
>

I'll take a crack at this and come up with a number much larger
than I've seen so far. According to my 1962 arrl handbook Q = Z/r or
Q = f/half power bandwidth. lets try both approuches. dipole length =
10 meters so wavelength = 20 meters so freq = 14.997 Mhz approx....call
it 15 Mhz. Diameter = 1.0 mm = #18 AWG wire with r/1000 foot= 6.51 ohm,
so r, purely resistive in wire = 0.197. Actual r slightly higher due to
skin effect which at 15 Mhz for #18 wire is not great. say r = 0.2. Z
of dipole (in free space) = approx 73 ohm. 73/0.2 = Q = 365...quite
high in free space antenna would have a half power bandwith of only
about 80 Khz.
A real world dipole of #18 wire at a reasonable height above real
world ground would have a half power bandwidth of about 300 khz 0.3 Mhz.
so 15Mhz/0.3 = Q = 50
So my guess is Q between 365 in perfect free space to about 50 in
the real world.
Fun problem...was I supposed to just joke about it ??

de kc2lvq

> ----
> Reg, G4FGQ
>
>
>

3135. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 15:47:37 UTC
From: Dave <noone@nowhere.com>
Message-ID: <EKGdnVWwias8XqHdRVn-jA@crocker.com>
Source record: 99407

"Gary Boyer" <gboyer@columbus.rr.com> wrote in message
news:LM2%b.7744$OE4.2458@fe1.columbus.rr.com...
> I am looking for suggestions on erecting a first time 160 meter
antenna..no,
> I don't have and tower and no I don't have any antenna modeling
> software....I am just interested in your thoughts....I have never been on
> 160 and would just like to try it....tnx...Gary..K8BY..Oh..I just live on
a
> average size city lot....few trees....
>
>

put up the longest dipole you can as high as you can and load it with a
tuner... that is the easiest and fastest way. if you have an 80m dipole
that will work ok to try it out. this weekend is a good time to see what
you can do, the cq 160m ssb test is this weekend so there will be lots of
activity.

3136. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 16:08:10 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <o2ip30ltvahe7vpa75gvsp380hmq9ngsin@4ax.com>
Source record: 99408

On Mon, 23 Feb 2004 23:33:30 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

|
|How many of you can calculate (yes, a number is required) the Q of a
|1/2-wave dipole at resonance?
|
|Dipole length = 10 metres.
|Dipole diameter = 1 millimetre.
|

16.35

3137. Re: Unequal dipole legs on shortened antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 16:20:47 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <zX3%b.7643$yZ1.4857@newsread2.news.pas.earthlink.net>
Source record: 99409

Hi Ken -

You have a couple of wrong ideas. One relates to the feedline losses. At the frequencies in question, it is extremely unlikely that they could reach 99%--even with some SWR--unless your line is bad, or your antenna is in the next county. Also, your half-wave resonance is determined by the TOTAL length, not by each side independently. So your unequal sides should produce just a single resonance (per band), but with an off-center feed. There's nothing wrong with off-center feed, though. Some folks (including yours truly) have found that off-center feed can be a very useful technique for improving the match--especially if the antenna is in an asymmetrical environment, and/or too low (like mine). BTW, I move up and down in the 80m band using plug-in stubs to change the overall length. Works FB.

Good luck with your tuning, and 73,

Ed

"Ken" <cprstn54zz@att.net> wrote in message
news:hdap30dskqjc46ui43m6r091nnd593iacl@4ax.com...
> I have a shortened all-band dipole with two loading coils on each leg.
> On 80 and 160 it has a very narrow resonance bandwidth that requires a
> choice between data (low end) and phone (hi end). I am using a
> wide-range manual tuner.
>
> By changing the length of two segments on each side, I can move the
> resonant "passband" where I want it on 80 and 160.
>
> Using the antenna outside the passband results in unacceptably huge
> (like 99%) feedline losses -- when the feedline is coax. I suspect
> that if I shift to ladderline, the losses will just move to my tuner.
>
> What would happen if I adjust one leg for resonance on phone and the
> other for resonance on data?
>
> If this would give me 50% of the resonant signal of a balanced
> antenna, that would be acceptable.
>
> Ken KC2JDY
> Ken
> (to reply via email
> remove "zz" from address)

3138. Re: EDZ 2 el. question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 16:22:39 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403ccbda$1_8@corp.newsgroups.com>
Source record: 99410

Dick wrote:
> As the EDZ has gain on 10 meter would a reflector at 8 feet create more gain
> and also FB?

The EDZ will have a bidirectional gain of about 10 dBi over ground.

One reflector will give you a gain of about 11 dbi over ground with a FB
ratio of about 3 dB, not really worth fooling with.

However, two reflectors arranged end-to-end will give you a gain of about
13 dBi over ground with a FB ratio of about 10 dB, not too shabby. Align
the center of the two reflectors with the standing wave current loops in
the driven element. (current loop = current maximum point = current antinode)

> And what would be the effect on the other freq. will I also get some gain
> and FB.?

Not unless you short the two reflectors together to obtain gain on 20m.
Gain on the lower bands can be obtained with a loading coil between the
two reflectors. Get fancy and install a motorized loading coil between
the two elements (like a screwdriver).

Or use two driven elements and phase them to get a beam on all bands.
(easier said than done)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3139. Re: Unequal dipole legs on shortened antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 16:28:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403ccd1f$1_8@corp.newsgroups.com>
Source record: 99411

Ken wrote:
> Using the antenna outside the passband results in unacceptably huge
> (like 99%) feedline losses -- when the feedline is coax. I suspect
> that if I shift to ladderline, the losses will just move to my tuner.

Not necessarily. Since a ladderline with an SWR transforms impedances
simply have it transform the impedance to something that is acceptable
to your tuner. That's what I do.

> What would happen if I adjust one leg for resonance on phone and the
> other for resonance on data?

Your antenna would resonate half way between phone and data. Maybe
not a bad idea. Try it and see if the SWR is still unacceptable.

> If this would give me 50% of the resonant signal of a balanced
> antenna, that would be acceptable.

Measure the SWR and calculate the losses to see if they are acceptable.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3140. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 16:33:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403cce50$1_8@corp.newsgroups.com>
Source record: 99412
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

vcxbbs@eastlink.ca wrote:
> dbjjvlhdbrpobcmbngkgdtxpoevsvbqgrocymgcgfswjqeknbnzxqlezzbvbydrbkwvttesckwdnmwtcs

Just curious, does this string of letters have any meaning?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3141. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 16:40:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403cd009$1_8@corp.newsgroups.com>
Source record: 99413

William Mutch wrote:
> So my guess is Q between 365 in perfect free space to about 50 in
> the real world.

From the ARRL Antenna Book: "For an ordinary 1/2WL dipole, the approximate Q values vary from about 14 for a length/diameter ratio of 25,000 to about 8 for a ratio of 1250." Reg's ratio is 10/.001 = 10,000. Extrapolation indicates a Q of about 10.5.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3142. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 17:01:23 UTC
From: mikea@mikea.ath.cx
Message-ID: <c1ikd2$5n6$3@puck.litech.org>
Source record: 99414
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

In <403cce50$1_8@corp.newsgroups.com> (rec.radio.amateur.boatanchors), Cecil Moore wrote:
> vcxbbs@eastlink.ca wrote:
> > dbjjvlhdbrpobcmbngkgdtxpoevsvbqgrocymgcgfswjqeknbnzxqlezzbvbydrbkwvttesckwdnmwtcs

> Just curious, does this string of letters have any meaning?

I suspect it's just a pseudorandomly-generated "hashbuster" to help
the spam avoid filters that hash the message body and check against
known spam.

--
"HTML's a cheap whore. Treating her with respect is possible, and even pref-
erable, because once upon a time she was a beautiful and virginal format, but
you shouldn't expect too much of her at this point." (Mark 'Kamikaze' Hughes)

3143. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 17:03:09 UTC
From: William Mutch <wcm1@NOSPAM.cornell.edu>
Message-ID: <MPG.1aa69f5cc338716c989763@newsstand.cit.cornell.edu>
Source record: 99415

In article <403cd009$1_8@corp.newsgroups.com>,
Cecil.A.Moore@ieee.ONEDOT.org says...
> William Mutch wrote:
> > So my guess is Q between 365 in perfect free space to about 50 in
> > the real world.
>
> From the ARRL Antenna Book: "For an ordinary 1/2WL dipole, the approximate
> Q values vary from about 14 for a length/diameter ratio of 25,000 to about
> 8 for a ratio of 1250." Reg's ratio is 10/.001 = 10,000. Extrapolation
> indicates a Q of about 10.5.
>
That would result in a half power bandwidth of 1.5 Mhz at 15 Mhz.
Have you ever encountered a diapole that broadbanded?

3144. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 17:16:48 UTC
From: William Mutch <wcm1@NOSPAM.cornell.edu>
Message-ID: <MPG.1aa6a288613cb9bf989764@newsstand.cit.cornell.edu>
Source record: 99416

In article <403cd009$1_8@corp.newsgroups.com>,
Cecil.A.Moore@ieee.ONEDOT.org says...
> William Mutch wrote:
> > So my guess is Q between 365 in perfect free space to about 50 in
> > the real world.
>
> From the ARRL Antenna Book: "For an ordinary 1/2WL dipole, the approximate
> Q values vary from about 14 for a length/diameter ratio of 25,000 to about
> 8 for a ratio of 1250." Reg's ratio is 10/.001 = 10,000. Extrapolation
> indicates a Q of about 10.5.
>
That would result in a half power bandwidth of 1.5 Mhz at 15 Mhz.
Have you ever encountered a diapole that broadbanded?

3145. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 17:17:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1ilbmchj1@hercules.btinternet.com>
Source record: 99417

For starters you can do no better than erect an inverted-L

To cover all bands from 160m upwards, overall length (vertical + horizontal sections) is ideally in the region of 45 to 50 metres (150 feet to 170 feet.) but shorter lengths are OK although it may be become more difficults to tune up on 160m.

You will need only a moderate ground such as half-a-dozen surface or shallow buried ground wires no longer than 15 metres (50 feet). But shorter lengths will be OK. If there is some wire left over then use it to increase the number of radial wires rather than increase lengths.

The L need not be in straight line or the vertical section vertical. But bends should preferably be less than 90 degrees,

On 160m a simple L-match tuner will suffice. 40uH roller coaster and a 450pF capacitor. Or a selection of coils wound on toilet roll tubes.

It cannot be repeated too often, the higher the vertical section the better.

If your backyard is short in length then make an inverted-U out of it.

The inverted-L is the best all-round antenna for moderately-sized back yards. It is all-band and for practical purposes omni-directional. Its only disadvantage is that in a city or town environment it is sensitive to locally-generated noise on 160 and 80 metres.

If local noise IS a very important factor then the next best thing is a half-wave dipole for 160m. But this requires twice the length of antenna (up to 260 feet) to work well on 160m.

Think about more complicated antennas only in terms of single-band, multi-element beams at the higher frequencies.

The best of DX on 160m. Reg, G4FGQ

3146. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 17:29:28 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <r7mp305qpnk91ok98coq97aaemimkrris1@4ax.com>
Source record: 99418
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Wed, 25 Feb 2004 17:01:23 +0000 (UTC), mikea@mikea.ath.cx (Mike
Andrews) wrote:

>In <403cce50$1_8@corp.newsgroups.com> (rec.radio.amateur.boatanchors), Cecil Moore wrote:
>> vcxbbs@eastlink.ca wrote:
>> > dbjjvlhdbrpobcmbngkgdtxpoevsvbqgrocymgcgfswjqeknbnzxqlezzbvbydrbkwvttesckwdnmwtcs
>
>> Just curious, does this string of letters have any meaning?
>
>I suspect it's just a pseudorandomly-generated "hashbuster" to help
>the spam avoid filters that hash the message body and check against
>known spam.

Exactly. As spamfiltering has gotten better, the spammers have gotten
more sophisticated.

The key clue is the attachment. Besides EXE files, ANY files with the
extensions COM, BAT, SCR, and PIF could also be damaging programs.
Note that sometimes a file will have a name ending in more than one
extension, but only the last one matters. More trickery.

Do not open any attachments that you have the slightest suspicion of,
no matter who appears to have sent them. A friend could have a virus
on their machine, sending out copies to everyone in their address
book.

Get a good antivirus program, including Norton Antivirus or MacAfee,
which gets frequent updates of virus definitions, and run it on EVERY
file received, via email, Internet, or disk.

The time and money you should put into prevention are a tiny fraction
of what could be involved in recovering from a virus on your machine.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

3147. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 17:34:24 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1imecbuh1@newshost.mot.com>
Source record: 99296

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:266-403C070B-625@storefull-3252.bay.webtv.net...
> [...]
> Steve also wrote:
> "Also ok, but not sure how it plays into the RMS discussion."
>
> My speculation is that the effective value of a nonsinusoidal waveform
> could be found by summation of its sinusoidal constituents.

That's what I thought you were going for. My gut feel is that this must be valid, otherwise "Fourier ain't an exact solution after all". But it sounds like a lot of work and you have to be able to extract all the significant Fourier components (harmonics) and there is an element of approximation here, just like my "mathematicall function" method, no?

...Of course doing the integration on the waveform takes some time to crank through the math and get all the quantities collected correctly.

> But, it`s not difficult to find an effective value for ...
> nonsinusoidal periodic waveforms as well. One can graphically take

For what I wanted to do, the integration was easier. I may be wrong, but Fourier also needs a function and you still need to integrate, no?

Now, to answer Richard Clark's comments about accuracy in another post... I did assume that the wave shapes I was interested in were defined (I think the word is) explicitly. I assumed a mathematical function. When I compared the three waveforms which were appropriate (sine, triangle, trapezoid) the results were very much the same (for ratio of RMS to Average). (gotta remember to keep my sentences shorter).
From this I came to the conclusion that for wave shapes which differed slightly from the ideal (assumed shapes) the values would be well within acceptable bounds. Easily 5%. Yes, not exact, but much better than Bob Shrader had assumed.

> large number of equally spaced ordinates of the form, using at least one
> complete alternation, Richard Clark.

I don't think they have to be equally spaced since the actual time enters into the calculation (as you described later). This would make long sections with a constant value easier.

> Both alternations are not needed
> but could be used as a minus times a minus is a plus and each of the

This assumes that the waveform is symmetrical around zero. I think in general, one whole period is required.

> or[...] using a planimeter.

Richard H. clearly prefers graphical solutions and that's ok.

> Unless I`ve opened a new can of worms with this posting, I don`t know of
> any difference of opinion I have with Steve.
> Best regards, Richard Harrison, KB5WZI

Right now it appears that this half vs. full period is the only
difference I can see.

--
Steve N, K,9;d, c. i My email has no u's.

3148. new low bander - used equipment suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 17:34:38 UTC
From: Phil Schuman <pschuman_NO_SPAM_ME@interserv.com>
Message-ID: <O05%b.18221$PY.4204@newssvr26.news.prodigy.com>
Source record: 99269
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.antenna

I've been in HAM hibernation for the past 20 yrs or so.
Last time I was on the low bands
was with a HT-40 + HQ-110 or TR4 -

If I wanted to look for a small used inexpensive low band rig
that could be used at home, in the car,
or with AC/12V power on Boy Scout campouts
any suggestions......
My challenge would be not having a great antenna...
just something tossed up at a Boy Scout outing
so my concern is antenna matching a hunk of wire :)
Phil - WA9TKA - Chicago

3149. Re: new low bander - used equipment suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 18:21:16 UTC
From: S <fn30@optonline.net>
Message-ID: <wI5%b.21378$M8.1681649@news4.srv.hcvlny.cv.net>
Source record: 99270
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.antenna

i think you might want to look at the yaesu ft-897, ft-817, icom 703 or 706

"Phil Schuman" <pschuman_NO_SPAM_ME@interserv.com> wrote in message
news:O05%b.18221$PY.4204@newssvr26.news.prodigy.com...
> I've been in HAM hibernation for the past 20 yrs or so.
> Last time I was on the low bands
> was with a HT-40 + HQ-110 or TR4 -
>
> If I wanted to look for a small used inexpensive low band rig
> that could be used at home, in the car,
> or with AC/12V power on Boy Scout campouts
> any suggestions......
> My challenge would be not having a great antenna...
> just something tossed up at a Boy Scout outing
> so my concern is antenna matching a hunk of wire :)
> Phil - WA9TKA - Chicago
>
>
>

3150. Re: RMS determination Was: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 18:22:32 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1ip8lfvm1@newshost.mot.com>
Source record: 99295

OOPS!

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:5atn30hhlmhd7lkfgq8tomau4jb5ehdku4@4ax.com...
> On Tue, 24 Feb 2004 18:28:57 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
> > I assumed Richard's intent here is that you only have to do the
> >calculation for one full period ...symmetrical, then only one half
period...
>
> And then you offer in contradiction:
>
> >However a DC biased periodic shape requires another squaring and root
> >operation if you capture all the components. It gets a bit more harry

This was a stupid thing to add at this point since it addresses
something which I did not explain, so I'm sure it looks weird. I didn't
even say what was in my mind. Namely, that with the DC + AC you still need
to do one full period of the periodic part.

What I was poorly referring to was this:
If you can break down the signal into component parts such as:
DC
Periodic part #1
Periodic part #2
etc
Then there is a formula for the total RMS which is the square root of
the sum of the squares. It is in one of the papers I linked previously.
That is one way to do an AC+DC situation. Second formula in the Intl Rect
paper:
http://www.irf.com/technical-info/an949/append.htm

> [...] There is no such thing as symmetry, except on the
> academic page. [...] you don't
> make claims to accuracy (admittedly none were offered that I was
> responding to) through fudge factors when so many alternatives remove
> doubt.

I think is it safe to say that we each determine our own tolerance for
error. Five percent for power is ok for my purposes. SO approximating
waveform functins is just fine.

>
> >> The simple determination of RMS is the graphical integration of the
> >> area under the curve. There are as many "correction factors" for RMS

> >> as there are shapes, and they all derive from this simple concept.
> >
> > Here I'll take issue with the ONE WORD "graphical". You can
integrate
> >if you can describe the function of the wave shape mathematically.

Here, I'll take issue. I believe that the basis for the many
"correction factors" for RMS of various shapes is indeed the mathematical
integration of a function rather than the "Simple concept" of a graphical
solution (if that is what you meant). There is a mathematical integral of a
sine wave.

I think you'd be hard pressed to prove that the average of a sine wave is
2/pi exactly using graph paper. You could certainly say it sure looks close
to 2/pi, but is it exactly pi?... can't say for sure.

Case in point is the phase controlled sine wave made by SCR light
dimmers. I find it hard to believe you can graphicaly come up with the
formula:

Sqr-root[D/2 + sin[pi(1-D)] cos[pi(1-D)]/2pi

I must also add that the graphical solution and mathematical integration
are different implementations of the same concept. I don't intend to say
that one is wrong and one is right.

Now, for Richard, C. Is the thing coming out of the AC outlet an exact
sine wave...no. It is very noticably flattened on the top by all the power
supplies drawing peak currents near the peak. There must be other
corruptins as well. However, if I assume it is a sine wave, will my
calculations come out very close, I believe Yes.

Now in all fairness, I won't dispute that you can use the graphical
method to find the RMS to any desired accuracy, just not exact...without
being able to integrate the waveform.

> Of course, but it is eminently doubtful if you can actually express it
> mathematically. Far more here own o'scopes than works of multiple
> regression.

> Graphical analysis is first year engineering stuff out of
> drafting class.

Integration is first year engineering stuff out of calc class. At least
it was for me. I am still amazed that I remember doing tripple integrals
then, and thinking...Gee, this ani't so hard after all!. Couldn't do one to
save my life now.

>
> >> [...] you simply measure the caloric result and ignore
> >> shape altogether.

I always thought that the common method of measuring RF power was pretty
cool! The Thermistor or bolometer. Here you balance a bridge with DC or

low freq AC. It heats the thermistor to the correct resistance. Then, when you add RF power, the thing heats up more and changes resistance. So, you remove some DC power to get back to the correct resistance and that amount is easy to figure. That is how much RF you put in. Cool. I think it is correct to say that you absolutely cannot measure power *directly*. You must measure something else which is affected/caused by the power...comment?

> >> [..] migrated from Power to some other consideration

Not trying to migrate. I just think its a cool method.

> >
> > Yikes! Not sure where you went on that last bit, Richard C...
> >Now, I ask. Do the power meters on the outside of our houses take all those
> >factors into consideration
And, like me, Richard Clark makes a really long answer that says...Yes.

Got me!
I have NO idea how the watt-hour meter works...and don't want to try to understand at this point.

73,
--
Steve N, K,9;d, c. i My email has no u's.

3151. Re: what kind of antenna is this and where can I find instructions?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 18:43:08 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <016%b.21361$hm4.14321@newsread3.news.atl.earthlink.net>
Source record: 99271

"Dustin" <fordman@btc-bci.com> wrote in message
news:UHU_b.71$X%2.79868@news.uswest.net...
> Hello a friend of mine who is into ham sent me this pic via email, but I
> didnt get any instructions, and I personally dont know a whole lot about
> antenna's. I want to build this antenna for my 2M radio at home. if
someone
> could give me a link to a source for this particular antenna I would be
> greatfull. Also if someone would tell me what kind of antenna construction
> it is that would help me as well.
>
>
>

>

It is a driven element design for a beam antenna. It is from a HAM RADIO
Magazine article.

It was recently re-done in the CQ-VHF magazine a few months ago.

Dan/W4NTI

3152. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 18:48:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5qqp30he204srekljv83s539eg0g3f71a5@4ax.com>
Source record: 99272

On Wed, 25 Feb 2004 09:08:10 -0700, Wes Stewart <n7ws@_arrl.net>
wrote:

>On Mon, 23 Feb 2004 23:33:30 +0000 (UTC), "Reg Edwards"
><g4fgq.regp@ZZZbtinternet.com> wrote:
>
>|
>|How many of you can calculate (yes, a number is required) the Q of a
>|1/2-wave dipole at resonance?
>|
>|Dipole length = 10 metres.
>|Dipole diameter = 1 millimetre.
>|
>
>16.35

C'mon Wes,

That can't be right for two reasons. There have been only 14
postings, many of which did not offer the Q (and, further, were
multiple submissions from the same author). What is more, there's not
much chance of finding 35% of a poster, is there?

Do you really think there are as many calculating posters as there is
Q? My calculation would suggest 16.28, but as to those who could
actually calculate it, it falls far short of 16 (rolled down) and
actually numbers 2.

The answer is 2.

73's
Richard Clark, KB7QHC

3153. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 19:22:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1ismc$6rf$1@titan.btinternet.com>
Source record: 99273

> Reg Edwards wrote -
> >How many of you can calculate (yes, a number is required) the Q of a
> >1/2-wave dipole at resonance?
==========

> 1 of us at least (me).

Richard Clark, KB7QHC

==========

Prove it or forever hold your peace.

3154. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 19:27:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dktp30lvbid455fpakb3duie67acnh6pu6@4ax.com>
Source record: 99274

On Wed, 25 Feb 2004 19:22:53 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>> Reg Edwards wrote -
>> >How many of you can calculate (yes, a number is required) the Q of a
>> >1/2-wave dipole at resonance?
>==================
>
>> 1 of us at least (me).
>
>Richard Clark, KB7QHC
>
>==================
>
>Prove it or forever hold your peace.
>
Reggie, m'lad, you are a day late, a pound short, and haven't answered
the question yourself, much less mine. What are you holding?

73's
Richard Clark, KB7QHC

3155. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 20:14:35 UTC
From: richardharrison@webtv.net
Message-ID: <28533-403D022B-5@storefull-3258.bay.webtv.net>
Source record: 99276

Reg, G4FGQ wrote:
"How many of you can calculate (yes a number is required) the Q of a 1/2-wave dipole at resonance?"

I would have expected a Reg Edwards program for antenna Q.

ON4UN gives a convenient worked example on page 5-7 of "Low-Band DXing".

John Devoldere`s dipole is 40 mtrs long, 20 mtrs high, and uses 2mm OD wire (AWG 12). Its feedpoint is 75 ohms.

So, ON4UN`s antenna is for the 80-mtr band, while Reg`s antenna is for the 20-mtr band.

ON4UN`s solution is 1163 ohms for the surge impedance and a Q of 16 for the dipole.

The wire is so small as compared with dipole length in both cases that signal velocity along the wire is nearly 100%.

Almost anyone could punch Reg`s numbers in ON4UN`s formulas, turn the crank, and produce the Q answer.

Best regards, Richard Harrison, KB5WZI

3156. Re: GAP Super C antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 20:20:05 UTC
From: Nomen Nescio <nobody@dizum.com>
Message-ID: <15632ed323c4e257c6718b0a47655717@dizum.com>
Source record: 99275

In article <20040224165029.03211.00000302@mb-m23.aol.com>
jgboyles@aol.com (JGBOYLES) wrote:

Thanks the reply. I used an antenna similar to that in a ziq-zap config once. I had forgotten about that. LIke you say, the rf flying around does cause some problems at higher powers. I would probably, because of neighboring condos, run no more than exciter power.

3157. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 20:23:01 UTC
From: richardharrison@webtv.net
Message-ID: <28531-403D0425-37@storefull-3258.bay.webtv.net>
Source record: 99277

Cecil, W5DXP wrote:
"Just curious, does this string of letters have any meaning?"

It means she`s going to keep it up until you go blind.

Best regards, Richard Harrison, KB5WZI

3158. Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 20:46:42 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1j1mv$s9e$1@newshost.mot.com>
Source record: 99294

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:403bdbc1_7@corp.newsgroups.com...
> Richard Harrison wrote:
> > If we have a Class C amplifier feeding power to the same antenna and
> > enjoying a conjugate match, we can have a source that takes less than
> > 50% of the available energy. So, the transmitting antenna system can be
> > more efficient than the receiving antenna system, it seems to me.

Didn't see the original post...

I think the phrase "available energy" may draw discussion, but won't start
it. I suspect it is not the thing to focus on. However...

With a "conjugate match" the source dissipates 50% of the power and the load
the other 50%. This can't be changed. Draw the schematic to see. Rs = RL
therefore Ps = PL. (I'll use a big "L" so it looks like an "L")

Then I go to something I have for a long time wondered about; the following
situation:
A (tube) amplifier is in conjugate match conditions. It is dissipating 10
watts in its plate. This is the limit of its plate dissipation. Model this
as a voltage source (Vs) with source resistance (Rs) and a load with load
resistance (RL). The conjugate match has removed all the reactance.

There is also 10 Watts to the load.

Now, assuming you can, increase the (plate) supply voltage by, say 20%.

This raises the source voltage (Vs) [may be the fatal flaw]. If the plate
resistance (Rs) stays the same (I don't know if it will - more flaw-fodder),
then the plate dissipation will also increase. SO... how about adjusting
the match so the plate sees a higher RL to get back to 10 watts plate
dissipation. RL must now increase 40% to do this. The source current must
stay the same if the source resistance stays the same and keep the same
source dissipation.

Now, what we have done is to increase RL and Load voltage (VL), and
therefore load power, but kept 10 watts at the plate. If I did the math
correctly the load now dissipates 40% more power. If, however, we
re-adjust the match back to conjugate we WILL get more power and 50% will be
dissipated in the stage...until it blows. SO...

I think this tells us that if the stage is dissipation limited, but not
breakdown limited, we can non-conjugate match for a higher power than
'before' by raising the supply voltage. It sorta looks like we are getting
more with a non-conjugate match. You don't have the 50-50 division of power

also. It is now 41.7% tube, 58.3% load

Snake oil? The math is correct, but there may be some practical limit not considered.

--
Steve N, K,9;d, c. i My email has no u's.

Then there's the solid state power amplifier standard output resistance formula.
Rs = Vcc^2 / (2*Po)
The implication should be obvious...

3159. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 21:13:49 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <he8%b.120870$jk2.515312@attbi_s53>
Source record: 99278

Dan Richardson < wrote:

> Let me try this one more time. You had posted earlier and I commented
> on this:
>
> "A receiving antenna must be resonant to enable full acceptance of
> available energy, and it must be matched to avoid re-radiation of more
> than 50% of the energy it is able to grab."
>
> I commented on the first portion of your statement (above). My only
> point is that it makes no difference if an antenna's is resonate or
> not in determining how much energy it grabs.
>
> That's it, nothing more.
>
> 73
> Danny, K6MHE
>
SNIP

The effective aperture is the effective aperture is the effective
aperture ...

The antenna intercepts ALL the EM energy within it's effective aperture.

You, the listener, may be interested in only 2.8 KHz of that energy. :-)

3160. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 21:42:47 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <29ydnVOsXqVKi6DdRVn-hQ@comcast.com>
Source record: 99279

"William Mutch" <wcm1@NOSPAM.cornell.edu> wrote in message
news:MPG.1aa6a288613cb9bf989764@newsstand.cit.cornell.edu...
> >
> That would result in a half power bandwidth of 1.5 Mhz at 15 Mhz.
> Have you ever encountered a diapole that broadbanded?

Why not. We are not talking about a 2:1 SWR bandwidth. Also, I presume he
meant free space.

Tam/WB2TTT

3161. Re: Doppler DF whip length

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 22:21:08 UTC
From: k7itm@aol.com
Message-ID: <3200347.0402251421.afe94b9@posting.google.com>
Source record: 99280

I agree with Steve, both for the reason he mentioned and also because
the unused antennas (at each instant in time) are parasitic elements
to the one in use, and will shift the phase of the signal received in
that active element. To the end of reducing that effect, you should
try to reflect a high impedance to the base of the "off" elements,
because then they won't be resonant. But it would be bad to reflect a
short to the base of the "off" elements, if they are 1/4 wave long.

Cheers,
Tom

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:<c1gqfndae1@newshost.mot.com>...
> "Ken" <cprstn54zz@att.net> wrote in message
> news:pbdn30ha0sbvs37q1jqapnr4gmmniaqsjh@4ax.com...
> > I am building the Ramsey Electronics DDF-1 doppler DF. This uses
> > four 1/4 wave whip antennas on the corners of a square approximately
> > 1/4 wavelength on a side. These are connected to a rooftop switcher
> > that activates each antenna in sequence. See:
> >
> http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=DDF1
> >
> > My question is, How dependent is this rig on proper whip length to
> > function properly? Does sensitivity suffer if my whips are
> > significantly too short, or does the thing simply stop working
> > properly?
> >
> > I want to use it for 6M. I have the room for the 55" antenna spacing,
> > but my antennas are only around 24" long.
> >
> > Ken KC2JDY
> >
> > Ken
> > (to reply via email
> > remove "zz" from address)
>
> Ken,
>
> Very familiar with the "Doppler" type system. You may very well be
> better off with non resonant whips. When you have whips near resonance, you
> are subject to the phase shift due to small differences due to being
> slightly above or below resonance. A test should be to put all the whips
> very close together, in a line and receive a signal from broadside (so all
> antennas are equidistant from the source...assuming you have a single path
> as from a nearby hand held) Then you verify that the pulses out of the

> discriminator are non existent.
>
> Shorter whips mean reduced sensitivity. Not all that desirable in a Doppler
> since it suffers already. It is nothing other than receiving a 6M signal on
> any other 24" whip.

3162. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 23:08:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403d2afd$1_3@corp.newsgroups.com>
Source record: 99281

William Mutch wrote:
> That would result in a half power bandwidth of 1.5 Mhz at 15 Mhz.
> Have you ever encountered a diapole that broadbanded?

Actually, for a dipole, I've only ever measured the bandwidth of dipoles with respect to SWRs of 2:1 and 3:1. Seems a half power point would be measured with respect to an SWR of 5.83:1. Is that correct?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3163. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 23:10:27 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403d2b6f$1_3@corp.newsgroups.com>
Source record: 99282

Reg Edwards wrote:
> It cannot be repeated too often, the higher the vertical section the better.

Is that true for a 160m Inv-L used on 10m?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3164. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 23:14:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403d2c51_3@corp.newsgroups.com>
Source record: 99283

Richard Clark wrote:

> <g4fgq.regp@ZZZbtinternet.com> wrote:
>>Prove it or forever hold your peace.
>
> Reggie, m'lad, you are a day late, a pound short, and haven't answered
> the question yourself, much less mine. What are you holding?

If Reg was in Texas he might be holding his piece, but we know he's
not doing that in GB.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3165. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 23:16:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403d2cbf$1_3@corp.newsgroups.com>
Source record: 99284

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "Just curious, does this string of letters have any meaning?"
>
> It means she`s going to keep it up until you go blind.

Too late.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3166. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 23:28:12 UTC
From: Paul <nospam@pllleaaseeee.com>
Message-ID: <c1jb2c$87u$1@titan.btinternet.com>
Source record: 99285
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

Thanks to all those that have offered advice, I should have mentioned that I am UK based.

I plan to put the antenna up this weekend so I will let the group know how I get it goes with the TVI.

Cheers,

Paul

"Paul" <nospam@pllleaaseeee.com> wrote in message news:c1gklf$3pj$1@hercules.btinternet.com...
> Hi,
>
> I would like to reposition my 2M/70cm Vertical (Diamond X50) to a higher
> position.
>
> One option is to mount it above the TV aerial, I understand that the signal
> radiation below the antenna is very small, does anyone have any experience
> of a similar setup?
>
> If so what kind of distances would you suggest between the antennae?
>
> Obviously my main concern is TVI and poorer performance from the Diamond due
> to its close proximity to the TV aerial.
>
> I'm using RG-213 for the Diamond and normal coax for the TV.
>
> Any help or suggestions would be appreciated.
>
> Cheers,
>
> Paul
>
>

3167. Motorhome mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 23:41:15 UTC
From: "DeLores Lamb, KD7ZAE" <2awesome@cox.net>
Message-ID: <6jcq309bcjbt1n518emdc25v2fv5s38qp6@4ax.com>
Source record: 99286

Any suggestions on a best place to mount an Outbacker 10-160 so I can use it while moving down the highway?

Chris N7FNB

3168. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-25 23:48:34 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <mva%b.121121$jk2.519183@attbi_s53>
Source record: 99287

Great, now to the issue.
\
How much power does the antenna pick up compared to the power enclosed
within the 2.4 Khz frequency spread that is considered useful ? Or can we
say how much energy is dumped to ground by a bandpass filter (plus insertion
losses). I know it may be absolutely quiet outside the bandwidth of choice
but I assume you get my drift with respect to efficiency of a simple dipole
to a radiator of high Q.
Regards
Art
"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:he8%b.120870$jk2.515312@attbi_s53...
> Dan Richardson < wrote:
>
> > Let me try this one more time. You had posted earlier and I commented
> > on this:
> >
> > "A receiving antenna must be resonant to enable full acceptance of
> > available energy, and it must be matched to avoid re-radiation of more
> > than 50% of the energy it is able to grab."
> >
> > I commented on the first portion of your statement (above). My only
> > point is that it makes no difference if an antenna's is resonate or
> > not in determining how much energy it grabs.
> >
> > That's it, nothing more.
> >
> > 73
> > Danny, K6MHE
> >
> SNIP
>
> The effective aperture is the effective aperture is the effective
> aperture ...
>
> The antenna intercepts ALL the EM energy within it's effective aperture.
>
> You, the listener, may be interested in only 2.8 KHz of that energy. :-)
>

3169. Re: Motorhome mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 00:13:52 UTC
From: dplatt@radagast.org
Message-ID: <103qei0llkko6c2@corp.supernews.com>
Source record: 99288

In article <6jcq309bcjbt1n518emdc25v2fv5s38qp6@4ax.com>,
DeLores Lamb, KD7ZAE <2awesome@cox.net> wrote:

>Any suggestions on a best place to mount an Outbacker 10-160 so I can
>use it while moving down the highway?

I imagine it's going to depend to a fair degree on the motorhome. Not having done it myself, and basing what I say on my fuzzy knowledge of general principles, I'd say you have several sets of issues which will require a tradeoff process. You need mechanical strength for the mount, you need good grounding, you want the antenna to be clear of electrical interference, and you probably want to be careful about the height.

So - first principle is probably to figure out where you can put it, so that it'll stay put and won't damage the vehicle.

Traditional mounting for this sort of antenna is often via an insulated-shoulder ball mount attached to a side panel or other structurally-sound part of the body. Motorhomes with today's thin skins (I've heard the term "structural paint" used ;-) may not provide a suitable location to drill - the wind-shear stress of a mobile antenna might tend to "tear out" a ball mount on a thin panel.

One possibility is a mounting stud attached (via drilling, clamping, bracing, etc.) to the luggage rack up on top. Another would be to drill through a side panel (ideally, not far from part of the frame) and install some sort of strong and rigid backing panel on the inside to provide the necessary mechanical support. A front-bumper or above-the-front-wheel-well mount is another possibility, depending on the configuration of the m'ome.

For a good signal, you want the antenna to be high, and clear of the grounded portions of the vehicle body - this will help keep your losses down (and losses *will* be considerable with a short mobile antenna). In order to avoid whacking the antenna too frequently (or too hard) you'd probably want to keep the top of the antenna below the statutory minimum height for bridges here in the U.S., which I believe is 13' 6". You can probably get away with having the tip of the whip up somewhat higher than this (it's flexible enough to bend), but I think you'd certainly want to keep the top of the helically-wound section of the antenna well below the "hits an overpass" height. The Outbackers are flexible and tough, but there's no sense putting excessive WHACK WHACK WHACK strain on the antenna, the mounting and surrounds, and your nerves.

The great height of a m'ome thus presents a bit of a problem... if you mount the antenna up above the body to get the biggest signal, it'll probably top out well above the underpass height and you'll end up banging it and occasionally knocking low-flying birds out of the sky.

This suggests that perhaps a wheel-well mount, or a front-fender mount with an auxiliary base mast to get the antenna up to hood height, might be a tolerable compromise. Unfortunately, this puts the antenna near the engine compartment, and could lead to problems with ignition noise during reception and RF jamming of the ignition during transmit.

Another compromise possibility would be to mount it partway up the side panel (perhaps near the back). Part of the helical section would be near the upper part of the side panel, which isn't great for losses, but you should be able to get the entire whip and part of the helical section up above the roof.

A third possibility is to reconfigure the antenna. Mount it fairly high up on a side panel, near the back, with the helical section sticking up to around 13' above ground. Don't install the standard whip. Instead, make an adapter out of 6" of brass rod (same diameter as the whip base) with a loop in the top. Solder a long, strong, flexible wire to the loop in the top, stick the adapter in the antenna and tighten the nut, and run the wire forwards above the roof to an insulated attachment point at the front. The horizontal wire will serve the same basic "capacity hat" role as the whip, and will give the helical part of the antenna something to resonate against. You'll have to completely re-tune the antenna - the flying lead will probably end up going into different holes than you expect, and you may have to fiddle with the length of the capacity-hat wire to achieve proper resonance on any given band. You should still get good signal out of the antenna.

Then, there's grounding. No matter where you put it, you should connect the antenna base to the vehicle frame via a heavy braid (or several in parallel). Don't depend on the coax to provide good grounding. Even if you mount it to a metal side panel, run the braid to a good ground post on the frame - side panels are sometimes rather poorly connected to the frame, due to the use of structural adhesives rather than bolts when attaching them to the body.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3170. Re: new low bander - used equipment suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 00:20:29 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <j4OdnTaViudTpqDdRVn_iw@comcast.com>
Source record: 99289
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.antenna

You might want to take a look at the Kenwood TS50 for HF only use. Seems like a rugged little radio, and I think it has been around for a while. Check out the user reports at . http://www.eham.net/reviews/detail/411 Also, when you get it narrowed down, try to download user manuals from the manufacturer's sites.

Tam/WB2TT
"Phil Schuman" <pschuman_NO_SPAM_ME@interserv.com> wrote in message news:O05%b.18221$PY.4204@newssvr26.news.prodigy.com...
> I've been in HAM hibernation for the past 20 yrs or so.
> Last time I was on the low bands
> was with a HT-40 + HQ-110 or TR4 -
>
> If I wanted to look for a small used inexpensive low band rig
> that could be used at home, in the car,
> or with AC/12V power on Boy Scout campouts
> any suggestions......
> My challenge would be not having a great antenna...
> just something tossed up at a Boy Scout outing
> so my concern is antenna matching a hunk of wire :)
> Phil - WA9TKA - Chicago
>
>
>

3171. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 01:35:57 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <14c%b.59502$4o.76908@attbi_s52>
Source record: 99290

Cecil Moore wrote:

> William Mutch wrote:
>
>> That would result in a half power bandwidth of 1.5 Mhz at 15 Mhz.
>> Have you ever encountered a diapole that broadbanded?
>
>
> Actually, for a dipole, I've only ever measured the bandwidth of dipoles
> with respect to SWRs of 2:1 and 3:1. Seems a half power point would be
> measured with respect to an SWR of 5.83:1. Is that correct?

Hmmm ... Someone wants to focus on the - 3 dB point!!

That's not fair!! But, as the question is asked IMO it is the correct
place to find the 'half power' point.

3172. sdfg

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 03:09:13 UTC
From: bb <bb@private.com>
Message-ID: <c1jo010tlo@enews4.newsguy.com>
Source record: 99293

sdfg

3173. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 03:17:08 UTC
From: richardharrison@webtv.net
Message-ID: <28532-403D6534-37@storefull-3258.bay.webtv.net>
Source record: 99291

Dave Shrader wrote:
"The effective aperture is the effective aperture is the effective aperture...."

And by any other name it would likely smell as sweet.

Terman has a definitionin of sorts in his 1955 edition on page 899:
Directive gain=(4 pi)(effective aperture)(k) divided by lambda squared.

Arnold B. Bailey is much more descriptive in "TV and Other Receiving Antennas", starting around page 298. I`ve tried to condense and number his points:
1. The radio field is expressed in volts per meter or in watts per square meter.
2. Our standard dipole will have a capture area within the radio field, broadside to the field, with the rod positioned in the direction of the electric vector. (not cross-polarized)
3. Our 1/2-wave dipole has a capture area extending the 1/2-wavelength of the rod, and 1/8-wavelength either side of the center of the rod.
4. The area thus calculates as lambda squared over 8.
5. This effective area representation is a simplification but it works for most purposes.
6. If we can modify our 1/2-wave antenna to capture more signal than normal, we say the antenna has gain.
7. "Capture area" is pure fiction but it gives the right answers.
8. Zero-dB gain antennas all have the same "capture area", and are assumed to be resonant which is an essential requirement enabling full performance.
9. Shape, size, power transfer capability, and directional response are the four main factors which determine an antenna`s utility. (Bailey has great elaboration on each of these four factors.)
10. Some antenna shapes operate well over a wide frequency bandwidth, others don`t.
11. Fat antennas tend to be broadband and are shorter than a free-space wavelength, indicating a reduced signal velocity along their lengths.
12. All parts of the receiving antenna rod intercept the radio wave.
13. Induced current is reflected by open-circuit ends of the antenna rod.
14. Impedance at the center of the rod is the result of incident and reflected waves interacting.
15. Resonance is a result of interaction of incident and reflected signal components in the rod.
16. The antenna rod has a characteristic resistance independent of the reflected signal, and this resistance is determined by the ratio of voltage on the rod to current.. (This is found on page 306.)

17. From the size of an antenna rod we can determiner its capacitance per unit length. This factor determines its characteristic resistance. (voltage to current ratio)
18. Reflection coefficient at the ends of the rod depends on configuration. Thicker antennas have smaller reflections at their ends.
19. Conical rods which are thicker toward their extremities produce weak reflections, and tend to have broadband responses.
20. On thin dipoles at first resonance, there is substantial reflection from its ends and the reflection is 180-degrees out of phase with the incident signal.
21. 1/4-wave back from the open-circuit ends of the antenna, the voltage is low and the current is high, so the impedance (a resistance) is low. The resistance 1/4-wavelencth back from the open-circuit ends is much lower than the characteristic resistance of the rod to the signal traveling in either direction alonng the antenna rod.
22. With reflection----
R = Vincident - Vreflected / Iincident + Ireflected
(Whereas, the Ro = V/I
23. Fat antennas are less directional than thin antennas and keep their broadside lobe together better at harmonic frequencies.

Don`t know what the particular value of effective aperture is. Terman found it useful in describing the directional characteristics of a matress antenna. Since effective aperture is related to directive gain by constants, why not just stick with directive gain? Bailey, a leading Bell Labs antenna researcher, said capture area is pure fiction anyway as the grip on radiated energy does not start and stop abrubtly at the imaginary boundaries used to describe it.

Obviously, effective aperture has enjoyed some popularity among some who found it useful. The effective area of an antenna has a dictionary definition: The square of the wavelength multiplied by the power gain in a particular direction, divided by 4 pi. The "capture area" is defined as: The area of the antenna elements that intercept radio signals.
I may have confused the definitions.

Best regards, Richard Harrison, KB5WZI

3174. FS: Nye Viking MBVA antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 03:32:58 UTC
From: k9sqg@aol.com
Message-ID: <20040225223258.02169.00000365@mb-m19.aol.com>
Source record: 99292

Price reduced to $450 shipped, continental US only.

73s,

Evan

3175. Thanks. [was]Re: antenna among the trees.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 11:43:23 UTC
From: obhiee@my-deja.com
Message-ID: <d65c3680.0402260343.3bdcab15@posting.google.com>
Source record: 99297

obhiee@my-deja.com (Obhiee) wrote in message
news:<d65c3680.0402242326.640cb689@posting.google.com>...
-chop

Dear Tam and Doc,

Thanks for the confirmation (+:

The noise floor is just above moderate, usually S2 to S3, but gets
injuriously high at times, can't do much about that, although i've
been thinking of trying a grounded loop in the same inclined plane.
Just need to get myself to do it... One of these days, I keep telling
myself.

Thanks again, and hope to catch you on the band sometime.

regards,
abhishek/vu3hqk

3176. I sell 8875

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 13:15:16 UTC
From: lauradorian <lauradorian@free.fr>
Message-ID: <403df1ca$0$29949$626a14ce@news.free.fr>
Source record: 99298

I sell 2 new tubes 8875 in packing, 350$ + 19$ of shipping.

3177. Re: RMS determination Was: Class C & RMS WAS: A: What is impedance...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 13:45:28 UTC
From: richardharrison@webtv.net
Message-ID: <5603-403DF878-164@storefull-3255.bay.webtv.net>
Source record: 99300

Steve Nosko wrote:
"I assumed Richard`s intent here is that you only have to do the calculation for one full period...symmetrical, then only half period..."

Maybe an advantage of graphical representation is manifestation of the absurd. If the wave is not symmetrical around the zero volt axis, or if one alternation has greater squared values, it may be apparent. You may be able to see this in the mathematical expression for the waveform too.

The effective value of both alternations must be equal for the determination of the value of only one alternation to suffice.

Steve also wrote:
"There ia a formula for the total rms which is the square root of the sum of the squares.""

Sounds familiar. Sounds like Pythagoras.

Best regards, Richard Harrison, KB5WZI

3178. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 13:53:09 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1aa7522e2ec1eafd9896c1@news.individual.net>
Source record: 99299

[This followup was posted to rec.radio.amateur.antenna and a copy was sent to the cited author.]

In article <9g823099nvgm978hos4naa5o21aduguegs@4ax.com>, cprstn54zz@att.net says...
> I have an old mag mount RS CB antenna with a 24" (approx.) telescopic
> whip. It is fitted with an integral audio cable (as the feedline)
> terminating in (what else?) a male RCA jack that plugs into the CB's
> antenna jack. The CB is rated at 5 watts FM.
>
> The whip can be shortened quite a bit. Is there any reason it
> wouldn't resonate on 10M?
>
> Audio cable ain't RG-8/U, but is it enough to handle 30 watts FM on
> 10M?

No reason why it shouldn't. I used a RS mag-mount antenna for several years with a couple of different 10m radios (HR-2600 from Uniden, and HTX-100 from RS). As noted elsewhere in the discussion, I'd be careful putting a lot of power into it, but certainly there should be no trouble running up to 25 watts into it.

I'd look into replacing the feed line with coax, though, if possible.

Once you're ready, set your rig on VERY low power (under a watt). Select a frequency in the middle of the range where you plan to operate. Tune the antenna for minimum SWR for that frequency and you should be good to go.

Don't expect it to perform spectacularly, though -- remember, you're dealing with a vertical antenna with a loading coil, so it's not going to be the best thing in the world. But with a similar setup as described above, I was able to make some decent contacts during my morning and afternoon commute in Los Angeles back in the late 80s. (In fact, a buddy of mine and I used to chat with one another on the morning drive, and were joined by a Russian station for a few minutes!)

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

3179. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 14:01:04 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <cfydnVCz35qCYaDd4p2dnA@comcast.com>
Source record: 99301

What constitutes bandwidth is a good question. Generally, for a series RLC lumped parameter network, the bandwidth is between the points where the phase angle is between +/- 45 degrees. For a dipole, the R changes as you change frequency. So, is the bandwidth determined by the +/- 45 degree frequencies, or where X= +/- j72? Or whichever is less?
Tam/WB2TT

"Dave Shrader" <david.shrader@comcast.net> wrote in message news:14c%b.59502$4o.76908@attbi_s52...
> Cecil Moore wrote:
>
> > William Mutch wrote:
> >
> >> That would result in a half power bandwidth of 1.5 Mhz at 15 Mhz.
> >> Have you ever encountered a diapole that broadbanded?
> >
> >
> > Actually, for a dipole, I've only ever measured the bandwidth of dipoles
> > with respect to SWRs of 2:1 and 3:1. Seems a half power point would be
> > measured with respect to an SWR of 5.83:1. Is that correct?
>
> Hmmm ... Someone wants to focus on the - 3 dB point!!
>
> That's not fair!! But, as the question is asked IMO it is the correct
> place to find the 'half power' point.
>

3180. Re: Stage Efficiency Was: Antenna efficiency Was: What is impeda...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 14:16:32 UTC
From: richardharrison@webtv.net
Message-ID: <13764-403DFFC0-63@storefull-3256.bay.webtv.net>
Source record: 99302

Steve Nosko wrote:
"I think the phrase "available energy" may draw discussion, but I won`t start it."

I plead guilty. I knew when I wrote it that the choice was poor but couldn`t think of a better phrase at the moment.

Terman says on page 76 of his 1955 edition:
"Alternatively, a load impedance may be matched to a source of power in such a way as to make the power delivered to the load a maximum. (see footnote) The power delivered to the load under these conditions is termed the "available power" of the power source."

Walter Maxwell straightened me out on my carelessness on this long ago, and I repeated anyway. Dang me!

Best regards, Richard Harrison, KB5WZI

3181. Re: Stage Efficiency Was: Antenna efficiency Was: What is impeda...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 14:37:12 UTC
From: richardharrison@webtv.net
Message-ID: <4065-403E0498-176@storefull-3253.bay.webtv.net>
Source record: 99303

Steve Nosko wrote:
"With a "conjugate match" the source dissipates 50% of the power and the load the other 50%."

This is true only if all the source resistance is the type that converts electrical energy to heat. There is a non-dissipative resistance. Switched-off time in the Class-C amplifier is part of its internal resistance.

You can deliver all the available power of the Class-C amplifier to the load and dissipate less than 50% in the source.

Best regards, Richard Harrison, KB5WZI

3182. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 14:44:40 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <403caf84$1_7@newsfeed.slurp.net>
Source record: 99304

Gary, you can try 1/4-wave (about 125 ft), end-fed against ground. Simply take the feedpoint as high as you can, run the wire as high as you can, then run it around the outside of the back yard. It ain't perfect, but it is simple and it does work...

73,
Mike KI6PR
El Rancho R.F., CA

"Gary Boyer" wrote
> I am looking for suggestions on erecting a first time 160 meter
antenna..no,
> I don't have and tower and no I don't have any antenna modeling
> software....I am just interested in your thoughts....I have never been on
> 160 and would just like to try it....tnx...Gary..K8BY..Oh..I just live on
a
> average size city lot....few trees....
>
>

3183. Re: Motorhome mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 15:08:29 UTC
From: jder8745@aol.com
Message-ID: <20040226100829.08854.00000437@mb-m13.aol.com>
Source record: 99305

Howdy,

If you have a 5th wheel trailer, mount the antenna on the hitch. It's high and the most solid part of your trailer.

73 de Jack, K9CUN

3184. Re: Stage Efficiency Was: Antenna efficiency Was: What is impeda...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 15:20:05 UTC
From: richardharrison@webtv.net
Message-ID: <21070-403E0EA5-196@storefull-3257.bay.webtv.net>
Source record: 99306

Steve Nosko wrote:
"A (tube) amplifier is in conjugate match conditions. It is dissipating 10 watts in its plate. This is the limit of its plate dissipation----There is also 10 watts in the load.

Now assuming you can, increase the (plate) supply voltage by , say 20%---(may be the fatal flaw)."

Likely so. If everything remains linear, 20% more voltage increases power by 1.2 squared, or 1.44 times. If the tube was already dissipating its maximum sustainable power, expect an early failure due to the overload.

If you were not already in a maximum power transfer condition, and a condition which might provoke flashover within the tube, a readjustment of the match might shift more of the available power to the load and thus relieve the tube of some of the dissipation.

Best regards, Richard Harrison, KB5WZI

3185. Re: Stage Efficiency Was: Antenna efficiency Was: What isimpeda...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 15:39:27 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1l42t$5an$1@newshost.mot.com>
Source record: 99307

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:4065-403E0498-176@storefull-3253.bay.webtv.net...
> Steve Nosko wrote:
> "With a "conjugate match" the source dissipates 50% of the power and the
> load the other 50%."
>
> This is true only if all the source resistance is the type that converts
> electrical energy to heat. There is a non-dissipative resistance.
> Switched-off time in the Class-C amplifier is part of its internal
> resistance.
>
> You can deliver all the available power of the Class-C amplifier to the
> load and dissipate less than 50% in the source.
>
> Best regards, Richard Harrison, KB5WZI

I think this becomes very academic (or perhaps a better word is awkward) because originally you framed this as a "conjugate match" situation. Now, you are in terms of time varying parameters. I think the analysis must stay in one realm or the other. My mental models have trouble switching back and forth.
I can't speak to tubes, but I do know that to get the most out of a transistor power amp (transmitter type) up to about 200 MHz you design the output match to be for a collector resistance of Vcc^2/(2Po). IF I recall, this can be derived easily if you assume the transistor pulls all the way to ground and the output tank swings up to 2 x Vcc. I was shown, and understood it way back then, but can't recall the path to the solution off the top of my head.
This, then, always started the discussion of whether this "matched" the transistors output impedance or some other more esoteric concept. Then talk of "average resistance" came in and eyes would glaze over....

The designer would then go back to the bench, work to optimize the design to his requirements, test it over temp, etc. and ship it.

"There comes a time to shoot the Engineer and ship the product." is the title of a famous editorial from the early 70's (IIR). Got it around here somewhere...
-- 73
Steve N, K,9;d, c. i My email has no u's.

3186. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 15:49:13 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1l4l6$65u$1@newshost.mot.com>
Source record: 99308

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:cfydnVCz35qCYaDd4p2dnA@comcast.com...
> What constitutes bandwidth is a good question. Generally, for a series RLC
> lumped parameter network, the bandwidth is between the points where the
> phase angle is between +/- 45 degrees. For a dipole, the R changes as you
> change frequency. So, is the bandwidth determined by the +/- 45 degree
> frequencies, or where X= +/- j72? Or whichever is less?
> Tam/WB2TT

When you say "what constitutes" bandwidth" may mean several things. You
appear to be asking what the specific parameter limits are which are used to
define the actual bandwidth of something.

I think the answer is that "You get to define it to meet your requirements".
If you want to put your transmitter on the air, you may want to look at the
SWR bandwidth. Say you want (for whatever reasion you feel is important)
better than 2:1 (because of your transmitters ability to handle it) so that
is the bandwidth to discuss. An Engineer may be worried about the -3dB
bandwidth of his "through the air" system (Tx putput to Rx input)

For your tuned circuit example, a very connon "bandwidth is the -3dB points.
For a digital signal, it may be the group delay bandwidth for a better than
1 degree phase linearity.
What CAUSES each of these depends upon the hardware used.

Any help?
--
Steve N, K,9;d, c. i My email has no u's.
>
> "Dave Shrader" <david.shrader@comcast.net> wrote in message
> news:14c%b.59502$4o.76908@attbi_s52...
> > Cecil Moore wrote:
> >
> > > William Mutch wrote:
> > >
> > >> That would result in a half power bandwidth of 1.5 Mhz at 15 Mhz.
> > >> Have you ever encountered a diapole that broadbanded?
> > >
> > >
> > > Actually, for a dipole, I've only ever measured the bandwidth of
dipoles
> > > with respect to SWRs of 2:1 and 3:1. Seems a half power point would be
> > > measured with respect to an SWR of 5.83:1. Is that correct?
> >
> > Hmmm ... Someone wants to focus on the - 3 dB point!!

> >
> > That's not fair!! But, as the question is asked IMO it is the correct
> > place to find the 'half power' point.
> >
>
>

3187. Re: Stage Efficiency Was: Antenna efficiency Was: What is impeda...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 15:51:08 UTC
From: richardharrison@webtv.net
Message-ID: <21070-403E15EC-199@storefull-3257.bay.webtv.net>
Source record: 99310

Steve Nosko wrote:
"Then there`s the solid-state power amplifier standard output resistance formula.
Rs = Vcc^2 / (2*Po)
The implication should be obvious."

It looks like Ohm`s law to me, P=Vsq / R.

The implication of (2*Po) is that 50% of the power is in the source and 50% of the power is in the load. If so, it`s a Class-A amplifier formula, but the semiconductors could be biased to cut-off (Class-B) to reduce dissipation in the transistors when they are idle. The best collector load resistance is often not that which produces maximum output, but that which produces maximum "undistorted output".

Best regards, Richard Harrison, KB5WZI

3188. Re: Stage Efficiency Was: Antenna efficiency Was: What isimpeda...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 16:00:05 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1l59i$737$1@newshost.mot.com>
Source record: 99311

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:13764-403DFFC0-63@storefull-3256.bay.webtv.net...
> Steve Nosko wrote:
> "I think the phrase "available energy" may draw discussion, but I won`t
> start it."
>
> I plead guilty. I knew when I wrote it that the choice was poor but
> couldn`t think of a better phrase at the moment.........
> Best regards, Richard Harrison, KB5WZI

I think this is what causes much of the discussion here. Terms are not always as clear cut as things like: voltage or resistance. We know those, but some of the others are more vague...or just what concept they point to is not obvious. It is also sometines difficult to determine what the KEY point or word is of a question or statement.
When I read yours, I made the assumption that "available power" was not where your question pointed. I went along the; "Can we get a non 50-50 division? and not waste so much in the stage" path.
It is clear that different responders "Hear" different question.

Cryminy crum! I think my brain has forgotten how to hit the keys "on" in the correct order. I keep getting things like "questino" for "question"....or is it a keyboard timing issue??? As my fingers fly along...
--
Steve N, K,9;d, c. i My email has no u's.

3189. Re: Motorhome mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 16:01:08 UTC
From: Steveo <moparholic@hotmail-nospam-.com>
Message-ID: <20040226110108.774$4h@newsreader.com>
Source record: 99309

jder8745@aol.com (JDer8745) wrote:
> Howdy,
>
> If you have a 5th wheel trailer, mount the antenna on the hitch. It's
> high and the most solid part of your trailer.
>
> 73 de Jack, K9CUN
>
I've never seen a 5th wheel motorhome.

--
Mopar http://www.allpar.com/mopar.html
Go 40 42 12

3190. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 16:29:41 UTC
From: richardharrison@webtv.net
Message-ID: <21070-403E1EF5-207@storefull-3257.bay.webtv.net>
Source record: 99312

Tam, WB2TT wrote:
"What constitutes bandwidth is a good question."

J.D. Kraus has an answer on page 433 of his 1950 edition of "Antennas":

"The useful band width of an antenna depends,in general, on both its
psttern and impedance characteristics. In thin dipole antennas the band
width is usually determined by the impedance variation since the pattern
changes less rapidly."

Best regards, Richard Harrison, KB5WZI

3191. Re: Thanks. [was]Re: antenna among the trees.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 17:02:22 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <8didnf2OKdUAu6PdRVn-hg@comcast.com>
Source record: 99313

You might try one of the active noise cancellers that hook up between the antenna and your radio.

Tam/WB2TT
"Obhiee" <obhiee@my-deja.com> wrote in message
news:d65c3680.0402260343.3bdcab15@posting.google.com...
> obhiee@my-deja.com (Obhiee) wrote in message
news:<d65c3680.0402242326.640cb689@posting.google.com>...
> -chop
>
> Dear Tam and Doc,
>
> Thanks for the confirmation (+:
>
> The noise floor is just above moderate, usually S2 to S3, but gets
> injuriously high at times, can't do much about that, although i've
> been thinking of trying a grounded loop in the same inclined plane.
> Just need to get myself to do it... One of these days, I keep telling
> myself.
>
> Thanks again, and hope to catch you on the band sometime.
>
> regards,
> abhishek/vu3hqk

3192. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 17:21:17 UTC
From: Dave <kilojot@netscape.net>
Message-ID: <c1l9uj$1jp3o3$1@ID-226009.news.uni-berlin.de>
Source record: 99314
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

"Andy Cogswell" <SHORECOGS at COMCAST DOT NET> wrote in message
news:poydnVOlGKduIaHdRVn_iw@comcast.com...

>> In other words, you're not saying that an antenna fed with 50 feet of
coax
>> mounted at 10 feet has less loss than an antenna fed with 50 feet of coax
at
>> 35 feet, are you?

Lets me see now, if you put the aerial (antenna is for ants and yanks) 25
feet higher, you'll get total loss because the end of the co-ax will be 25
feet short of the rig!

:-))
Dave

3193. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 17:22:07 UTC
From: richardharrison@webtv.net
Message-ID: <21070-403E2B3F-212@storefull-3257.bay.webtv.net>
Source record: 99315

I wrote a long boring post on "effective aperture". I apologize. I regret not becoming familiar with Kraus`s "Antennas" long ago. Kraus makes many ideas clear with few words.

On page 43 of his 1950 edition of "Antennas" Kraus writes:
"The ratio of the power W in the terminating impedance to the power density of the incident wave will be defined as the effective aperture Ae.
Thus Ae = W/P
If W is in watts and P is in watts per square meter, the Ae is in watts per square meters."

Best regards, Richard Harrison, KB5WZI

3194. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 17:51:28 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <zmq%b.127262$jk2.539846@attbi_s53>
Source record: 99316

Steve, have we now moved to an antenna that has a preamplifier on it for listening ? If so I need not continue to struggle to follow the thread day by day to determine its implications to the subject at hand.
The half power thingy I presume is understood by all so IS something very exciting to be revealed that shows that the dipole is really an efficient radiator after all, but only if you put a class C amplifier on it ? There are stacks of information in books and lots of words in a dictionary, but sooner or later one has to give a reason as to why they are reading out loud if it is meant to be instructive or explanaatory with respect to the thread, i.e. dipole and its impedance. You can start a different thread which would help out for when one checks out the archives unless the intent is meant to be destructive
Regards
Art

. "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message news:c1g57v$ae8$1@newshost.mot.com...
> Hi Richard...
>
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:22643-403B76BF-484@storefull-3256.bay.webtv.net...
> > [...]
> > > "----Second, it is the RMS current through the tube which will waste
> > > power, so that is what we must be concerned with."
> >
> > I don`t believe current through a Class C amplifier consists of an
> > ordinary sine wave.
>
> And I didn't say that it does nor do I believe it does. I'm inclined to
> take my 100MHz storage scope to to the 6146's of my TS830s and see for
> myself.
> Your words imply (at least I infer) you are thinking that only a sine
> wave has an RMS value. Every wave of any shape has an effective or RMS
> value - its heating or "power causing" value.
>
>
> > [...] I think it consists of short unidirectional pulses.
> > The tuned "tank circuit" is the source of sine waves.
>
> This certainly has to be correct. The tank will most likely cause some
> sine-like VOLTAGE waveform, but the tube current has to be pulses of some
> shape. This is a very timely discussion in view of the AC power meter QST
> article and the extensive investigation I just completed on several pulse

> shapes..
>
>
> > RMS is the effective value, not the average value, of an a-c ampere.
>
> I will differ here. The RMS value is more appropriately described as
> the power producing value of ANY wave form. Pulses can produce heat just
as
> well as sine wave AC. We all know this from a practical view since tubes
> can only conduct in one direction and the plates DO get hot.
>
> >
>
> > ...as the heating
> > value of an ampere is proportional to the current squared.
>
> This is actually a simplification. P=ExI Power is the product of
> voltage and current *only*. Because this is a second order effect, in a
> resistance it can be related to either voltage squared or current
squared...
> because that captures the second order character. Maybe there's a better
way
> to say it mathematically, but I don't know it.
> When we get to non sine shapes, then we have to fall back on the
actual
> definition. root [avg of square] ...with the integral and all.
> http://www.ultracad.com/rms.pdf
>
> > [...snip...]
> >
> > Ordinarily, with nonsinusoidal currents, the ratio of maximum to
> > effective value is not the square root of 2.
> > Best regards, Richard Harrison, KB5WZI
>
> Doing the math for pulses with the shape of sine, triangle (a single
> slope with sudden end) and trapezoid (a sudden start to one level then a
> slope to a peak and a sudden end), I decided to look at the RMS to AVERAGE
> ratio since average is what a common meter will measure in Bob Shrader's
> article (AC watt meter Jan 04 QST).
> I was particularly interested in the sine-shaped pulses of various
duty
> cycle because the current of common power supplies occurs in short pulses
> with a sine-like shape that are near the peak of the voltage waveform.
> It was interesting that for all these shapes, this ratio was very
> similar. One relatively simple thing to understand which came out of the
> analysis was that the average value is directly proportional to the duty
> cycle as you might reasonably postulate. Where duty cycle is the ratio of
> "on" time to off time. Where "on" time is the time that ANY current
flows.
> Whereas the RMS is proportional to the Square root of the duty cycle.

e.g.
> drop the duty cycle to half and the RMS drops to .707.
>
> I have to do some verification, but it sure looks as though Bob's
> numbers can be as much as three times what he quoted, depending on the
> waveshape and some measurements I made.
>
> http://www.irf.com/technical-info/an949/append.htm
> Trapezoid=rectangular. Also for the phase controlled sine, the things
that
> look like tau and a small n are both pi i.e. sin [pi x (1-D)] cos [pi x
> (1-D)] and denominator of 2 x pi
>
>
> Some average & RMS values here.
> http://home.san.rr.com/nessengr/techdata/rms/rms.html
>
> More (better) average formulas:
> http://www.st.com/stonline/books/pdf/docs/3715.pdf
> NOW I know where the average value of a sine wave comes from = (2/pi)
> The Greek delta = d.
>
> A calculator for RMS:
> http://www.geocities.com/CapeCanaveral/Lab/9643/rms.htm
>
>
>

3195. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 18:06:43 UTC
From: F8BOE <"f8boe free.fr">
Message-ID: <403e35b2$0$2435$626a14ce@news.free.fr>
Source record: 99317

An inverted L.
Or a Levy with Levy coupler 2X20 meter dipole with 15 meter twinlead.

3196. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 18:18:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403e38d5_2@127.0.0.1>
Source record: 99318

Richard Harrison wrote:
> Thus Ae = W/P
> If W is in watts and P is in watts per square meter, the Ae is in watts
> per square meters."

Seems to me that Ae would be in square meters. :-)
--
73, Cecil, W5DXP

3197. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 18:35:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1le9g$n4g$1@titan.btinternet.com>
Source record: 99319

"Steve Nosko" wrote
> With a "conjugate match" the source dissipates 50% of the power and the
load
> the other 50%. This can't be changed.
==========
Without disagreeing with what you say -

A conjugate match is not relevant in the present discussion because there is seldom, if ever, a conjugate match between a PA and its antenna system.

The tuning-up process is NOT intended to produce such a match.

Tuning up is just the simple process of adjusting the transmitter load resistance to be equal to its designed-for load resistance, usually an arbitrary 50 ohms.

The internal resistance of a transmitter is NOT 50 ohms. It is not a design feature. It is whatever happens to appear after the designer has met a series of other requirements. The designer himself does not know what the internal resistance is unless, out of curiosity, he bothers to measure or calculate it.

Reg, G4FGQ

3198. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 18:35:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403e3cd1_2@127.0.0.1>
Source record: 99320

aunwin wrote:
> The half power thingy I presume is understood by all so IS something very
> exciting to be revealed that shows that the dipole is really an efficient
> radiator after all, but only if you put a class C amplifier on it?

Art, I assume you know that Class-C amplifiers are not usually used
for SSB since they are not linear for SSB. The basic confusion is
between linear systems and non-linear systems. If the amplifying
device (singular) conducts over the entire 360 degrees of an RF cycle
and the output waveform is a reasonable copy of the input waveform,
then that device is said to be linear. If you have two amplifying devices
operating in anything except Class-A operation, the output of each
individual device is not linear. That's the kicker. The "two non-linear
device" option is not available at the antenna for receiving purposes.
A normal dipole cannot receive Class-C (non-linear) signals.
--
73, Cecil, W5DXP

3199. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 18:43:54 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403e3eba$1_2@127.0.0.1>
Source record: 99321

Reg Edwards wrote:
> The internal resistance of a transmitter is NOT 50 ohms. It is not a design
> feature. It is whatever happens to appear after the designer has met a
> series of other requirements. The designer himself does not know what the
> internal resistance is unless, out of curiosity, he bothers to measure or
> calculate it.

Proving that, like 50/60 Hz AC power, efficiency may be
more important than maximum power transfer. Edison actually
thought that AC generators would burn up while trying to
deliver maximum power. That's why he backed DC.
--
73, Cecil, W5DXP

3200. Re: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 18:53:27 UTC
From: richardharrison@webtv.net
Message-ID: <21072-403E40A7-27@storefull-3257.bay.webtv.net>
Source record: 99322

Cecil, W5DXP wrote:
"Seems to me that Ae would be in square meters."

Cecil is wide awake. If you divide watts by watts per square meter, you end up with square meters. Appropriate for for an aperture, and dimensionally correct.

I must have been half asleep and typed something from the wrong line. Kraus made no mistake. I did. I apologize.

Best regards, Richard Harrison, KB5WZI

3201. Re: RMS determination Was: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 19:16:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lves30ha72ds8rq9un7ga9a4oegk24q5q1@4ax.com>
Source record: 99323

On Wed, 25 Feb 2004 12:22:32 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>> >> [...] you simply measure the caloric result and ignore
>> >> shape altogether.
>
> I always thought that the common method of measuring RF power was pretty
>cool! The Thermistor or bolometer. Here you balance a bridge with DC or
>low freq AC. It heats the thermistor to the correct resistance. Then, when
>you add RF power, the thing heats up more and changes resistance. So, you
>remove some DC power to get back to the correct resistance and that amount
>is easy to figure. That is how much RF you put in. Cool. I think it is
>correct to say that you absolutely cannot measure power *directly*. You
>must measure something else which is affected/caused by the power...comment?
>

Hi Steve,

There are many classes of caloric devices, two of which you identify
that are common within the Metrologist's art, and wholly absent from
amateur activities. So here I must make a slight correction of your
description. Power meters contain two (2) such devices which form the
balanced halves of a bridge. One side is exposed to the RF, the other
side is exposed to the simpler DC or AC power that is known to a high
degree of accuracy. What you describe is the detector implementation
of the same devices (which exhibit non-linearity to perform
detection). They would, in the fashion you describe, offer good
"relative" power indication, but not absolute power (except through
substitution methods). As such, they are fairly common in precision
VSWR instrumentation especially when they are driven by 1KHz modulated
power sources, and in turn drive special AC VTVM's scaled to present
dB and VSWR to very high resolution.

A list of the methods:
The Crystal: 1N21/23/25/26...
The Bolometer (low power caloric)
The Barretter (a Bolometer): Sperry 821, PRD 630A
The Wollaston wire (a Barretter): actually a 0.01A glass fuse
The Carbon filament (a Barretter)
The Thermistor (a Bolometer): Western Electric 28A
The Thermocouple
The Thermopile (lotsa Thermocouples)

73's
Richard Clark, KB7QHC

3202. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 19:23:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7hhs30p0n545u5rg0hvf883ic0l7a7bsi8@4ax.com>
Source record: 99324

On Wed, 25 Feb 2004 14:46:42 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:
>I think the phrase "available energy" may draw discussion, but won't start
>it.
Uh-Oh
> I suspect it is not the thing to focus on. However...
This has in the past lead to a cataract of 600 posting threads
>
>With a "conjugate match" the source dissipates 50% of the power and the load
>the other 50%. This can't be changed.
This is the 1mm fuse that starts that torrent. Once lit, no one
escapes.
...
>Snake oil? The math is correct, but there may be some practical limit not
>considered.

Hi Steve,

Practical or otherwise will be dismissed to the discussion of photons
and general relativity by the end of two days, if this doesn't fall
flat on its face with mine being the only comment. ;-)

73's
Richard Clark, KB7QHC

3203. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 19:34:37 UTC
From: spamtrap@robertkillington.co.uk
Message-ID: <937686c5.0402261134.78495a0e@posting.google.com>
Source record: 99325
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

"Paul" <nospam@pllllleaaseeee.com> wrote in message
news:<c1jb2c$87u$1@titan.btinternet.com>...
> I plan to put the antenna up this weekend so I will let the group know how I
> get it goes with the TVI.
Please do let us know how it goes. I'm looking to do the same with a
colinear. At the moment it's in the loft so below the TV aerial, but
in direct line of a bank of water tanks:-(which appear to be
"damping" (excuse the pun) some of the signal going out in that
direction, so I can't access one of the nearby repeaters.

Robert
M3NZU

3204. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 19:35:07 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <LTr%b.25407$AL.467912@attbi_s03>
Source record: 99326

Cecil
I am talking about the half power thingy with respect to a series circuit of which a antenna is designed around. Reg politely made a separate thread on a specific part of that thread which referred to impedance, presumably because Q was being bandied about where he thought probably it was irelevant.
Am I wrong to think that because a different thread was not made
the impedance question and amplifiers was relavent and somebody was not being destructive/impolite?
Now to your pont of what is the kicker...a normal dipole cannot receive Class-C (non linear signals)"?
Having being told about this thing that somebody read somewhere,
where is it leading to? Seems like I entered a class on engineering
and after 5 minuites I am wondering what sort of professor I had that not only just read books out loud for his money but thought it was O.K. to read from a wood working book. Can't we assume that a antenna is a closed series circuit containing only passive
items ? If you have in mind that we must we consider an antena as a Class something or other amplifier when determining its impedance then I am hopelessly lost in a thread that can only end up nasty like some others did and drive some more people away
because somebody wanted to play games of obstruction with the intent to annoy. Now I see that somebody decided to change this
thread heading instead of starting a new thread . Now we are talking about RMS meters and how they can be used ? Are we talking digital or analogue, hand held or otherwise, high enough accuracy to satisfy all (Nah that is asking to much) Well it is an antenna newsgroup so it must radiate , somebody read it in a book and assumes that all are unaware of it so he wishes to describe it
so others can make sense of what he read and why he read it!
Regards
Art
I am not pointing the finger at you Cecil, I have no idea who the culprit is or what his intent is.

?Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:403e3cd1_2@127.0.0.1...
> aunwin wrote:
> > The half power thingy I presume is understood by all so IS something very
> > exciting to be revealed that shows that the dipole is really an efficient
> > radiator after all, but only if you put a class C amplifier on it?
>
> Art, I assume you know that Class-C amplifiers are not usually used

> for SSB since they are not linear for SSB. The basic confusion is
> between linear systems and non-linear systems. If the amplifying
> device (singular) conducts over the entire 360 degrees of an RF cycle
> and the output waveform is a reasonable copy of the input waveform,
> then that device is said to be linear. If you have two amplifying devices
> operating in anything except Class-A operation, the output of each
> individual device is not linear. That's the kicker. The "two non-linear
> device" option is not available at the antenna for receiving purposes.
> A normal dipole cannot receive Class-C (non-linear) signals.
> --
> 73, Cecil, W5DXP
>

3205. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 19:49:37 UTC
From: richardharrison@webtv.net
Message-ID: <4065-403E4DD1-305@storefull-3253.bay.webtv.net>
Source record: 99327

Art, KB9MZ wrote:
"The half power thingy I presume is understood by all so IS something very exciting to be revealed that shows that the dipole is really an efficient radiator after all, but only if you put a class C amplifier on it?"

Art was the introducer of efficiency into this impedance thread. Something from Art about radiation per unit length of an antenna, if I recall. We noted that the antenna itself is usually so efficient there`s not much to talk about, but there are differences in the effectiveness of getting a signal on and off the air via an antenna. There`s coupling the antenna to the radio. This has been argued here since before the "47 KW CB" thread, and that was years ago.

If Art can get more signal out of an antenna which is as small or smaller than ordinary without putting more current into that antenna, assuming orientation, polarization, and the other usual conditions are fair for the competition, I`m excited.

Best regards, Richard Harrison, KB5WZI

3206. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 20:19:34 UTC
From: richardharrison@webtv.net
Message-ID: <4066-403E54D6-97@storefull-3253.bay.webtv.net>
Source record: 99328

Art, KB9MZ wrote:
"Can`t we assume that an antenna is a closed series circuit containing only passivee items?"

Sure, but you have an incomplete representation. An antenna is coupled more or less to the entire universe. It is usually tightly coupled to a radio or similar apparatus by some mutual impedance which makes a codependency.

Best regards, Richard Harrison, KB5WZI

3207. Re: Stage Efficiency Was: Antenna efficiency Was: What isimpeda...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 20:38:26 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1lljf$1o4$1@newshost.mot.com>
Source record: 99329

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:21070-403E0EA5-196@storefull-3257.bay.webtv.net...
> Steve Nosko wrote:
> "A (tube) amplifier is in conjugate match conditions. ...
>
> Now assuming you can, increase the (plate) supply voltage by , say
> 20%---(may be the fatal flaw)."
>
> Likely so. If everything remains linear, 20% more voltage increases
> power by 1.2 squared, or 1.44 times. If the tube was already dissipating
> its maximum sustainable power, expect an early failure due to the
> overload.

That's what I went on to say (get more power and 50% will be
dissipated in the stage...until it blows), but there was more to the story
which is relavant.
--
Steve N, K,9;d, c. i My email has no u's.

3208. Re: Stage Efficiency Was: Antenna efficiency Was: What isimpeda...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 20:49:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1lm7k$2kv$1@newshost.mot.com>
Source record: 99331

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:21070-403E15EC-199@storefull-3257.bay.webtv.net...
> Steve Nosko wrote:
> "Then there`s the solid-state power amplifier standard output resistance
> formula.
> Rs = Vcc^2 / (2*Po)
> The implication should be obvious."
>
> It looks like Ohm`s law to me, P=Vsq / R.

Well... I don't call THAT ohm's law, but rather, oh, I suppose, the
power formula, but that's symmantics. It is a transposition of (whatever
you call) that formula.

> The implication of (2*Po) is that 50% of the power is in the source and
> 50% of the power is in the load.

Again, I don't recall teh derivation, but it works. I don't believe it
related to a mathematical constraint that the power be equally split. Can't
speculate further withoug working it out.
This is the "maximum output" load. Don't know off-hand what the limiting
factor is, but this is what they desigend for and I don't thing you could
get more out without killing the part or its lifetime. Don't recall anyone
blowing parts with the wrong load...pretty robust parts. You just couldn't
get any more out.

> If so, it`s a Class-A amplifier

They are class C. VHF FM PAs.

> formula, but the semiconductors could be biased to cut-off (Class-B) to
> reduce dissipation in the transistors when they are idle. The best
> collector load resistance is often not that which produces maximum
> output, but that which produces maximum "undistorted output".
>
> Best regards, Richard Harrison, KB5WZI
>

3209. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 20:56:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <403e5dcf_2@127.0.0.1>
Source record: 99330

aunwin wrote:
> Can't we assume that a antenna is a closed series
> circuit containing only passive items ?

A passive antenna, when it is receiving a signal, is a pretty good
approximation to a Thevenin Equivalent circuit. The received
signal is the generator. The generator impedance is the radiation
resistance (and the lossy R's). We've got a transmission line and
usually a 50 ohm load in the receiver.

> If you have in mind that we must we consider an antena as a Class
> something or other amplifier when determining its impedance then I am
> hopelessly lost in a thread that can only end up nasty like some others did

Why not, for the purposes of limiting the discussion, consider only
a Thevenin Equivalent 50 ohm source for the transmitter? That way,
the entire system will be linear and easy to discuss.

> I am not pointing the finger at you Cecil, ...

If you were, which one would it be? :-)
--
73, Cecil, W5DXP

3210. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 21:01:54 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1lmvg$3m5$1@newshost.mot.com>
Source record: 99332

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c1le9g$n4g$1@titan.btinternet.com...
>
> "Steve Nosko" wrote
> > With a "conjugate match" the source dissipates 50% of the power and the
> load
> > the other 50%. This can't be changed.
> ============================
> Without disagreeing with what you say -
>
> A conjugate match is not relevant in the present discussion because there
is
> seldom, if ever, a conjugate match between a PA and its antenna system.
>
> The tuning-up process is NOT intended to produce such a match.
>
> Tuning up is just the simple process of adjusting the transmitter load
> resistance to be equal to its designed-for load resistance, usually an
> arbitrary 50 ohms.
>
> The internal resistance of a transmitter is NOT 50 ohms. It is not a
design
> feature. It is whatever happens to appear after the designer has met a
> series of other requirements. The designer himself does not know what the
> internal resistance is unless, out of curiosity, he bothers to measure or
> calculate it.
> ----
> Reg, G4FGQ

Hi Reg,
This is another track, but one I've pondered, but probably shouldn't
now... And one that I believe has seen MANY words on NetNews, no? So I'll
put this out anyway and see what I get.

As we adjust the classical pi output network, I think we are starting
high and gradually lowering the load impedance seen by the tube, no? Start
with max C at the load cap and decrease it for max Po (keep in resonance
with the plate cap) I believe in the pi config. the BIG load "C" transforms
the load (50ohms) up to a "hi" Z seen by the plate. This may be wrong,
though I believe not, so will continue with the concept.
As we do this the power to the load keeps increasing up to a point. If
we keep going, the Po drops. So, we have reached the optimum Z as seen by
the tube. I think the question at this point is "why / what" is this the
"optimum" for?
I suspect the arguments are FOR and CON conjugate match.

I think it must be agreed that it is clearly the optimum for Po, no?
--
Steve N, K,9;d, c. i My email has no u's.

3211. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 21:03:09 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1ln1r$3on$1@newshost.mot.com>
Source record: 99333

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:403e3eba$1_2@127.0.0.1...
> Reg Edwards wrote:
> > The internal resistance of a transmitter is NOT 50 ohms. It is not a
design
> > feature. It is whatever happens to appear after the designer has met a
> > series of other requirements. The designer himself does not know what
the
> > internal resistance is unless, out of curiosity, he bothers to measure
or
> > calculate it.
>
> Proving that, like 50/60 Hz AC power, efficiency may be
> more important than maximum power transfer. ...
> 73, Cecil, W5DXP

That's also where I was going with my "raise the plate voltage" concept.
--
Steve N, K,9;d, c. i My email has no u's.

3212. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 21:05:35 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1ln6d$3to$1@newshost.mot.com>
Source record: 99334

I'll never go there in the RF arena even though another hobby of mine is
laser light shows.
Placing "photon" and "RF" in the same paragraph is ... what shall I call it,
flame-fodder?

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:7hhs30p0n545u5rg0hvf883ic0l7a7bsi8@4ax.com...
> On Wed, 25 Feb 2004 14:46:42 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
> >I think the phrase "available energy" may draw discussion, but won't
start
> >it.
> Uh-Oh
> > I suspect it is not the thing to focus on. However...
> This has in the past lead to a cataract of 600 posting threads
> >
> >With a "conjugate match" the source dissipates 50% of the power and the
load
> >the other 50%. This can't be changed.
> This is the 1mm fuse that starts that torrent. Once lit, no one
> escapes.
> ...
> >Snake oil? The math is correct, but there may be some practical limit
not
> >considered.
>
> Hi Steve,
>
> Practical or otherwise will be dismissed to the discussion of photons
> and general relativity by the end of two days, if this doesn't fall
> flat on its face with mine being the only comment. ;-)
>
> 73's
> Richard Clark, KB7QHC

3213. Re: RMS determination Was: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 21:20:06 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1lo1k$599$1@newshost.mot.com>
Source record: 99336

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:lves30ha72ds8rq9un7ga9a4oegk24q5q1@4ax.com...
> On Wed, 25 Feb 2004 12:22:32 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >> >> [...] you simply measure the caloric result and ignore
> >> >> shape altogether.
> > >
> > I always thought that the common method of measuring RF power was
pretty
> >cool! The Thermistor or bolometer. Here you balance a bridge with DC or
> >low freq AC. It heats the thermistor to the correct resistance. Then,

Yea... Then I give only a partial description since trying to give
it completely would take pages, I decided to "overview" it.

However...

> >... and wholly absent from
> amateur activities.

OOPS! "wholly"?? I've got one. A really nice (but un temp
compensated) thermistor mount) (but don't tell anyone that I have nothing
to drive it with -- the rest of the bridge.)

So here I must make a slight correction of your
> description. Power meters contain two (2) such devices which form the
> balanced halves of a bridge.

I gotta go back & look, (this was from the 60's) but there are two and
they are in series for the low freq and parallel for the RF. On the low
freq side it is a 200ohm mount. Now I hafta' remember how the RF was
handled .... musta' been to only one...let me think about this...

One side is exposed to the RF, the other
> side is exposed to the simpler DC or AC power that is known to a high
> degree of accuracy. What you describe is the detector implementation
> of the same devices (which exhibit non-linearity to perform
> detection). They would, in the fashion you describe, offer good
> "relative" power indication, but not absolute power (except through
> substitution methods).

OOPS again! You DO get absolute because you know how much low freq
power you remove. Isn't that the principle of the HP437 & 438's? or are
they doing something else...diode ... er...uh crystal if you're across the p

ond? I always thought they were, caloric, as you say.

--
Steve N, K,9;d, c. i My email has no u's.

As such, they are fairly common in precision
> VSWR instrumentation especially when they are driven by 1KHz modulated
> power sources, and in turn drive special AC VTVM's scaled to present
> dB and VSWR to very high resolution.
>
> A list of the methods:
> The Crystal: 1N21/23/25/26...
> The Bolometer (low power caloric)
> The Barretter (a Bolometer): Sperry 821, PRD 630A
> The Wollaston wire (a Barretter): actually a 0.01A glass fuse
> The Carbon filament (a Barretter)
> The Thermistor (a Bolometer): Western Electric 28A
> The Thermocouple
> The Thermopile (lotsa Thermocouples)
>
> 73's
> Richard Clark, KB7QHC

3214. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 21:21:59 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c1lo54$5d9$1@newshost.mot.com>
Source record: 99335

```
Consider me burned out too, but I did change the subject line to allign
w/the change in topic.
--
Steve N, K,9;d, c. i My email has no u's.
"aunwin" <aunwin@insightbb.com> wrote in message
news:zmq%b.127262$jk2.539846@attbi_s53...
> Steve, have we now moved to an antenna that has a preamplifier on it for
> listening ? If so I need not continue to struggle to follow the thread
day
> by day to determine its implications to the subject at hand.
> The half power thingy I presume is understood by all so IS something very
> exciting to be revealed that shows that the dipole is really an efficient
> radiator after all, but only if you put a class C amplifier on it ? There
> are stacks of information in books and lots of words in a dictionary, but
> sooner or later one has to give a reason as to why they are reading out
loud
> if it is meant to be instructive or explanaatory with respect to the
thread,
> i.e. dipole and its impedance. You can start a different thread which
would
> help out for when one checks out the archives unless the intent
> is meant to be destructive
> Regards
> Art
>
>
> . "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:c1g57v$ae8$1@newshost.mot.com...
> > Hi Richard...
> >
> > "Richard Harrison" <richardharrison@webtv.net> wrote in message
> > news:22643-403B76BF-484@storefull-3256.bay.webtv.net...
> > > [...]
> > > > "----Second, it is the RMS current through the tube which will waste
> > > > power, so that is what we must be concerned with."
> > >
> > > I don`t believe current through a Class C amplifier consists of an
> > > ordinary sine wave.
> >
> > And I didn't say that it does nor do I believe it does. I'm
inclined
> to
> > take my 100MHz storage scope to to the 6146's of my TS830s and see for
> > myself.
```

> > Your words imply (at least I infer) you are thinking that only a sine
> > wave has an RMS value. Every wave of any shape has an effective or RMS
> > value - its heating or "power causing" value.
> >
> >
> > > [...] I think it consists of short unidirectional pulses.
> > > The tuned "tank circuit" is the source of sine waves.
> >
> > This certainly has to be correct. The tank will most likely cause
some
> > sine-like VOLTAGE waveform, but the tube current has to be pulses of
some
> > shape. This is a very timely discussion in view of the AC power meter
QST
> > article and the extensive investigation I just completed on several
pulse
> > shapes..
> >
> >
> > > RMS is the effective value, not the average value, of an a-c ampere.
> >
> > I will differ here. The RMS value is more appropriately described
as
> > the power producing value of ANY wave form. Pulses can produce heat
just
> as
> > well as sine wave AC. We all know this from a practical view since
tubes
> > can only conduct in one direction and the plates DO get hot.
> >
> > >
> >
> > > ...as the heating
> > > value of an ampere is proportional to the current squared.
> >
> > This is actually a simplification. P=ExI Power is the product of
> > voltage and current *only*. Because this is a second order effect, in a
> > resistance it can be related to either voltage squared or current
> squared...
> > because that captures the second order character. Maybe there's a better
> way
> > to say it mathematically, but I don't know it.
> > When we get to non sine shapes, then we have to fall back on the
> actual
> > definition. root [avg of square] ...with the integral and all.
> > http://www.ultracad.com/rms.pdf
> >
> > > [...snip...]
> > >
> > > Ordinarily, with nonsinusoidal currents, the ratio of maximum to

> > > effective value is not the square root of 2.
> > > Best regards, Richard Harrison, KB5WZI
> >
> > Doing the math for pulses with the shape of sine, triangle (a single
> > slope with sudden end) and trapezoid (a sudden start to one level then a
> > slope to a peak and a sudden end), I decided to look at the RMS to
AVERAGE
> > ratio since average is what a common meter will measure in Bob Shrader's
> > article (AC watt meter Jan 04 QST).
> > I was particularly interested in the sine-shaped pulses of various
> duty
> > cycle because the current of common power supplies occurs in short
pulses
> > with a sine-like shape that are near the peak of the voltage waveform.
> > It was interesting that for all these shapes, this ratio was very
> > similar. One relatively simple thing to understand which came out of
the
> > analysis was that the average value is directly proportional to the duty
> > cycle as you might reasonably postulate. Where duty cycle is the ratio
of
> > "on" time to off time. Where "on" time is the time that ANY current
> flows.
> > Whereas the RMS is proportional to the Square root of the duty cycle.
> e.g.
> > drop the duty cycle to half and the RMS drops to .707.
> >
> > I have to do some verification, but it sure looks as though Bob's
> > numbers can be as much as three times what he quoted, depending on the
> > waveshape and some measurements I made.
> >
> > http://www.irf.com/technical-info/an949/append.htm
> > Trapezoid=rectangular. Also for the phase controlled sine, the things
> that
> > look like tau and a small n are both pi i.e. sin [pi x (1-D)] cos [pi x
> > (1-D)] and denominator of 2 x pi
> >
> >
> > Some average & RMS values here.
> > http://home.san.rr.com/nessengr/techdata/rms/rms.html
> >
> > More (better) average formulas:
> > http://www.st.com/stonline/books/pdf/docs/3715.pdf
> > NOW I know where the average value of a sine wave comes from =
(2/pi)
> > The Greek delta = d.
> >
> > A calculator for RMS:
> > http://www.geocities.com/CapeCanaveral/Lab/9643/rms.htm
> >
> >

> >
>
>

3215. Re: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 21:56:25 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <cYt%b.25923$AL.469183@attbi_s03>
Source record: 99337

There you go again wandering off and bullshitting about something that you read some where and no body else knows it.
If you think as you say that all has been said that needs to be said about antennas then open another thread where you can deposite your volumous verbal diarrea. The subject was antennas and impedance but you seem to think that every thing is known so you can turn to any book on any subject and empty yourself on us as if you are on a bathroom stool which is your county seat. Now if you want to attack me regarding my antenna then fine start a thread and we will go at it but remember it is not in a book so you will have to think for yourself or resort to reading any old book and regurgitating. Now you could find something about say loop antennas that you are sure nobody else knows about or are we not upto that part in Krause's book that you are currently reading ?
And while we are at it, now you are getting absent minded please put a marker in the book where you left off. And another thing I will echo what Cecil says to the like of you....an antenna is an antenna and not to be regarded as a system. My antenna does not cry out aloud that it has had its amplifier stolen. Another point..you mention "we" since when do you think you talk for everyone here, only a few days ago your excuse was that you was not a professor,! Today you screwed up with dimension units that you copied incorrectly from YOUR book and frankly you have to post more than others because people do not agree with you most of the time as you seem unable to stay on target and get confused
about what the subject is or how to interpret something that you read and screw around trying to find a way to make it relavent.
If you remembered what ever you learned in school you would be able to talk for yourself and then debate for yourself now that Terman is dead, really dead . Now you also said something about what I said on this thread regarding current or something (I think I said 'I believe' which is a long way from acting as a know all tho I must admit I haven't been up lots of towers,put them up in lots of countries and all those other stories that you tell) to which you replied bullshit or balloney which from you should be enough so that you can walk away like a messiah you doesn't have to explain himself based on some fabulous light around his head that he thinks he has earned thru his fabulous teachings.
Another thing are you the only one that was correct on Reggies question.....no I didn't see a response in the early days that I read that thread... probably you knew all along as you read something like it in a book so dumped that on the thread anyway.
Now if you want to change the heading of this thread then be my guest since you and you alone knows everything there is to know about antennas as you read this book on a tower in Del Fuego or was it in the bathroom?
This is not a personal attack by the way
it is just a disagreement like saying baloney or bullshit, justification is

not required. I am sure you can identify with that
with you not being a professor and thus allowed to spout off.
Art
Looking forward to hearing you hit my antenna and the mathematics that go
with it regarding the amplifier hidden in the elements. Last time you said '
it' breaks all the laws of physics, the laws that you read in a book
somewhere and that was sight unseen, the antenna that is, the laws were
chiselled in a rock , graphical form that you saw the last time you climbed
a mountain where a bush once burned and you became a prophet

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:4065-403E4DD1-305@storefull-3253.bay.webtv.net...
> Art, KB9MZ wrote:
> "The half power thingy I presume is understood by all so IS something
> very exciting to be revealed that shows that the dipole is really an
> efficient radiator after all, but only if you put a class C amplifier on
> it?"
>
> Art was the introducer of efficiency into this impedance thread.
> Something from Art about radiation per unit length of an antenna, if I
> recall. We noted that the antenna itself is usually so efficient there`s
> not much to talk about, but there are differences in the effectiveness
> of getting a signal on and off the air via an antenna. There`s coupling
> the antenna to the radio. This has been argued here since before the "47
> KW CB" thread, and that was years ago.
>
> If Art can get more signal out of an antenna which is as small or
> smaller than ordinary without putting more current into that antenna,
> assuming orientation, polarization, and the other usual conditions are
> fair for the competition, I`m excited.
>
> Best regards, Richard Harrison, KB5WZI
>

3216. Re: Class C & RMS WAS: A: What is impedance (Z) Was something else

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 22:12:42 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <ubu%b.130415$uV3.644489@attbi_s51>
Source record: 99338

No I can't remember ever putting a finger/s up at anybody.
But I have this feeling that this thread is now long enough and has included
so many subjects of discussion that we have the beginnings of a full scale
augument again. However if it means that this is the time a certain person
leaves the group in discussed
then no harm done. Forget antennas and impedance and the subject change you
are advocating, let the row start now, say something,
anything so we get a repeat of the last one. Can't you say balonney or
bullshit at the next guru and tell something different to another guru and
blame it on the first guru? Throw a fishing pole with a carrot on it!
Art
Art

Art
"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:403e5dcf_2@127.0.0.1...
> aunwin wrote:
> > Can't we assume that a antenna is a closed series
> > circuit containing only passive items ?
>
> A passive antenna, when it is receiving a signal, is a pretty good
> approximation to a Thevenin Equivalent circuit. The received
> signal is the generator. The generator impedance is the radiation
> resistance (and the lossy R's). We've got a transmission line and
> usually a 50 ohm load in the receiver.
>
> > If you have in mind that we must we consider an antena as a Class
> > something or other amplifier when determining its impedance then I am
> > hopelessly lost in a thread that can only end up nasty like some others
did
>
> Why not, for the purposes of limiting the discussion, consider only
> a Thevenin Equivalent 50 ohm source for the transmitter? That way,
> the entire system will be linear and easy to discuss.
>
> > I am not pointing the finger at you Cecil, ...
>
> If you were, which one would it be? :-)
> --
> 73, Cecil, W5DXP
>

3217. Re: RMS determination Was: Class C & RMS WAS: A: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 22:59:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e0ts30d449g747sq4rmgn80n9n50tvsvn6@4ax.com>
Source record: 99339

On Thu, 26 Feb 2004 15:20:06 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:
> OOPS again! You DO get absolute because you know how much low freq
>power you remove. Isn't that the principle of the HP437 & 438's? or are
>they doing something else...diode ... er...uh crystal if you're across the p
>ond? I always thought they were, caloric, as you say.

Hi Steve,

They are Bolos (caloric) using PRD type elements. From your
description (barring the equipment name), it sounded like the typical
detector application. I can see you originally described a self
balancing bridge:

The HP bridge is powered three ways. It has a DC source to offer
temperature compensation and range changes (zero setting). It has an
AC Oscillator (~10 KHz) source in quadrature (topographically
orthogonal, across the bridge instead of over it). Basically, the
bridge temperature components (the Bolometer) act as an oscillator
level stabilizing feedback loop (much like the famous HP 200 which
used a lamp's negative resistance). The third power input is the
unknown RF which unbalances the heat causing the feedback to
re-regulate where the drive level changes (which is monitored by the
meter as the indication of the RF power applied).

The sum of the operation was that the bridge always operates at null
with the same heat burden for any applied RF power (within constraints
of course).

And yes, they are characterized as 200 Ohm mounts.

73's
Richard Clark, KB7QHC

3218. Re: Is it a CB or VHF marine antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-26 23:33:49 UTC
From: gmz79@aol.comnospam
Message-ID: <20040226183349.24842.00000470@mb-m26.aol.com>
Source record: 99340

>We do use a cell phone, I called the CG on it when I was in a storm and hit
>a pier which destroyed my VHF antenna.

A roll up J-pole and a fishin pole come in very handy in this situation.
KC*VIF
Greg Z
to thine own sound be true

3219. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 00:05:52 UTC
From: k9sqg@aol.com
Message-ID: <20040226190552.02859.00000416@mb-m15.aol.com>
Source record: 99341

The only real way is to try it and see what happens. But it isn't guaranteed. While adjusting the length of the whip alters the resonence, the base loading coil has two parts, or is a tapped inductor (although some use a capacitor instead). The "matching" part of the inductor, between the coax and ground, may or may not be correct for large excursions in frequency so altering the length of the whip may or may not work. Nothing to lose by trying, it's fun to learn!

3220. Re: Motorhome mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 03:00:12 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <0py%b.2831$p97.943@newssvr22.news.prodigy.com>
Source record: 99342

"Steveo" <moparholic@hotmail-nospam-.com> wrote in message
news:20040226110108.774$4h@newsreader.com...
> jder8745@aol.com (JDer8745) wrote:
> > Howdy,
> >
> > If you have a 5th wheel trailer, mount the antenna on the hitch. It's
> > high and the most solid part of your trailer.
> >
> > 73 de Jack, K9CUN
> >
> I've never seen a 5th wheel motorhome.

It would have to have a pickup truck bed
in the back... could happen.

--
Steve
KI5YG
.

3221. Re: Motorhome mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 03:17:18 UTC
From: Steveo <moparholic@hotmail-nospam-.com>
Message-ID: <20040226221718.859$mA@newsreader.com>
Source record: 99343

```
" Stephen Cowell" <scowell@sbcglobal.net> wrote:
> "Steveo" <moparholic@hotmail-nospam-.com> wrote in message
> news:20040226110108.774$4h@newsreader.com...
> > jder8745@aol.com (JDer8745) wrote:
> > > Howdy,
> > >
> > > If you have a 5th wheel trailer, mount the antenna on the hitch.
> > > It's high and the most solid part of your trailer.
> > >
> > > 73 de Jack, K9CUN
> > >
> > I've never seen a 5th wheel motorhome.
>
> It would have to have a pickup truck bed
> in the back... could happen.
>
I suppose it's possible, they do make some slick motorhome/enclosed
car hauler combo's.

--
Mopar http://www.allpar.com/mopar.html
Go 40 42 12
```

3222. Re: For Sale: Wire Antenna Tool

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 06:27:16 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <c1mo0douo1@news.oregonstate.edu>
Source record: 99344

Trace Klassen <ve7rz@shaw.ca> wrote:
> I cant believe peaple will pay 89 bux for a slingshot and reel. Wow I am
> in the wrong line of work :P

If you figure a ballpark cost for an engineer to a company is ~$100/hour, I can find you a lot of engineers where it'd be cheaper overall to buy it than to have them build it... :-)

That's the usual problem with these comparisons -- people don't include the value of their time! Now if you were in China...

3223. Combining Two Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 11:11:37 UTC
From: Bob <rljames@hotmail.com>
Message-ID: <Xns949C3EFEA576Frljameshotmailcom@208.34.105.14>
Source record: 99345

Any performance drawbacks to combining two antennas (an AOR MA-500 & Nil-Jon Super M base) to one radio (an ICOM R8500) input via a simple BNC tee to PL-259 VHF connector? Each of these antennas seem to offer some advantage at different frequencies and I'm tired of manually switching back and forth. Also seems like dedicated mechanical "switches" are expensive overkill.

3224. Re: Combining Two Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 12:27:44 UTC
From: Dave <noone@nowhere.com>
Message-ID: <v-idnVqh-txRqqLdRVn-ig@crocker.com>
Source record: 99346

"Bob" <rljames@hotmail.com> wrote in message
news:Xns949C3EFEA576Frljameshotmailcom@208.34.105.14...
> Any performance drawbacks to combining two antennas (an AOR MA-500 & Nil-
> Jon Super M base) to one radio (an ICOM R8500) input via a simple BNC tee
> to PL-259 VHF connector? Each of these antennas seem to offer some
> advantage at different frequencies and I'm tired of manually switching
back
> and forth. Also seems like dedicated mechanical "switches" are expensive
> overkill.
>
>
>
are there any drawbacks?? probably. you may take a 3db hit on signals from
each antenna because of the parallel path, assuming equal impedances and
lots of other stuff. or you may get complete cancellation if the antennas
are the exact wrong distance apart in a given direction. or you may get 3db
gain if they are the exact right distance apart in a given direction... the
only way to tell is to 'plug it in and try it'... there is just no good way
to predict over a wide range of frequencies and real world conditions.

3225. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 14:56:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1nlqc$79p$1@titan.btinternet.com>
Source record: 99347

> "When you can measure what you are speaking about and express it in
numbers
> you know something about it. But when you cannot measure it, when you
cannot
> express it in numbers, your knowledge is of a meagre and unsatisfactory
> kind. It may be the beginning of knowledge but you have scarcely in your
> thoughts advanced to the state of science."
>
> : William Thomson, Lord Kelvin, 1824-1907.

==========

To further the education of engineers who contribute to this newsgroup
here's how to calculate the Q of a half-wave dipole.

For any simple resonant circuit, Q = X/R (ARRL, RSGB, Terman, etc).

where X is the inductive reactance and R is the loss resistance.

Given the numerical data :

Dipole length = 10 metres.
Dipole diameter = 1mm.
From which Resonant frequency = 15 MHz.

The distributed inductance of the wire is given by -

L = 0.2*Length*(Ln(2*Length/diameter)-1) micro-henrys.

L = 17.8 micro-henrys.

which has a reactance of j1678 ohms.

Loss resistance, of course, is the distributed radiation resistance which is
exactly twice the lumped value of 70 ohms at the dipole centre.

Distributed resistance = 2*70 = 140 ohms.

Q = (Distributed Wire Reactance) / (Distributed Wire Resistance)

So Q = 12.0

Which may be a little higher than rule-of-thumb handbook expectations
because the wire is on the thin side.

Now that wasn't too difficult, was it?

On the other hand, antenna Q is a much overated antenna parameter not of
much use by itself if only because its effect can be swamped by L,C and R in

the transmission line and tuner. It's the System Q as seen by the
transmitter which matters.

Reg. G4FGQ

3226. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 16:21:39 UTC
From: richardharrison@webtv.net
Message-ID: <10419-403F6E93-11@storefull-3253.bay.webtv.net>
Source record: 99348

Richard Clark, KB7QHC wrote:
"Now try this on for size. What is the Q of free space?"

Q is often defined as the ratio of energy stored per cycle to the energy lost per cycle, or X/R.

A wire in space stores energy in the space around the wire, as the wire has self inductance and self capacitance. When r-f current flows on the wire, some energy radiates never to return. Radiation resistance has a value which would consume the same amount of power as is radiated were the resistance inserted in series with the antenna. The wire also makes heat due to current on its surface.

The wire in space has a Q at resonance of X/R as any tuned circuit has. The R is the sum of radiation and loss resistance. The bandwidth of the wire, like any tuned circuit, in cycles between half-power points, is the resonant-frequency divided by the Q.

Free space does not dissipate a signal. Attenuation is due to signal spread out into an ever larger volume.

Free space has a wave impedance of 377 ohms. (120 pi) This is only a ratio relating field intensity and power density.
Voltage = sq rt of power times resistance.
The 377 ohms of free space is a lossless resistance same as Zo of a lossless transmission line.

A field in free space is an energy conveyance capable of producing volts and amps but it is not volts and amps.

So, free space itself does not store energy nor dissipate energy in the way inductance, capacitance, and loss resistance do. My speculation is that Q is not applicable to free-space.

Best regards, Richard Harrison, KB5WZI

3227. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 17:07:01 UTC
From: richardharrison@webtv.net
Message-ID: <4136-403F7935-46@storefull-3252.bay.webtv.net>
Source record: 99349

Reg, G4FGQ wrote:
"Q = (Distributed Wire Reactance) / (Destributed Wire Resistance)
So Q = 12"

That is all well and good but we are on earth and our proximity requires adjustment for practical antennas.

ON4UN`s Q formula includes the height of the dipole above ground.

ON4UN`s wire was 40m long and 2mm OD.

G4FGQ`s wire is 10m long and 1mm OD.

Due to the length to diameter ratio, the thinner wire`s Q may be slightly higher. (less bandwidth)

ON4UN calculates a Q of 16. His wire has the greater length to diameter ratio, and who knows what the earth will do to an antenna in a particular location? Reg`s Q of 12 may be good enough.

Best regards, Richard Harrison, KB5WZI

3228. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 20:27:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1o96kgff1@sparta.btinternet.com>
Source record: 99350

Rich,

From where can I obtain ON4UN's formulae for dipole antenna Q ?

I didn't know anyone else had such things.

Is it short enough to post on this thread.?

Reg.

3229. Re: CB antenna on 10M?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 20:43:50 UTC
From: K7MEM@myrealbox.com
Message-ID: <eed95b3d.0402271243.2a1e09c4@posting.google.com>
Source record: 99351

Steve Silverwood <kb6ojs@arrl.net> wrote in message
news:<MPG.1aa7522e2ec1eafd9896c1@news.individual.net>...
> [This followup was posted to rec.radio.amateur.antenna and a copy was
> sent to the cited author.]
>
> In article <9g823099nvgm978hos4naa5o21aduguegs@4ax.com>,
> cprstn54zz@att.net says...
> > I have an old mag mount RS CB antenna with a 24" (approx.) telescopic
> > whip. It is fitted with an integral audio cable (as the feedline)
> > terminating in (what else?) a male RCA jack that plugs into the CB's
> > antenna jack. The CB is rated at 5 watts FM.
> >
> > The whip can be shortened quite a bit. Is there any reason it
> > wouldn't resonate on 10M?
> >
> > Audio cable ain't RG-8/U, but is it enough to handle 30 watts FM on
> > 10M?
>
> No reason why it shouldn't. I used a RS mag-mount antenna for several
> years with a couple of different 10m radios (HR-2600 from Uniden, and
> HTX-100 from RS). As noted elsewhere in the discussion, I'd be careful
> putting a lot of power into it, but certainly there should be no trouble
> running up to 25 watts into it.
>
> I'd look into replacing the feed line with coax, though, if possible.
>
> Once you're ready, set your rig on VERY low power (under a watt).
> Select a frequency in the middle of the range where you plan to operate.
> Tune the antenna for minimum SWR for that frequency and you should be
> good to go.
>
> Don't expect it to perform spectacularly, though -- remember, you're
> dealing with a vertical antenna with a loading coil, so it's not going
> to be the best thing in the world. But with a similar setup as
> described above, I was able to make some decent contacts during my
> morning and afternoon commute in Los Angeles back in the late 80s. (In
> fact, a buddy of mine and I used to chat with one another on the morning
> drive, and were joined by a Russian station for a few minutes!)

My experience has been very similar to Steve's. I have several from Radio
Shack and they work just fine on 10 Meters, after a little adjustment.
I used one of their little 3 Ft mag-mounts with a HTX-100 on my vehicle
for years and never had any trouble talking to anyone I could hear. I
regularly talked from Phoenix to the mid-west and east coast. And, if

I remember correctly, there were instructions with the antenna for
CB and Amateur use.

I also have one of their full size verticals. Coax is fed up the center
of the bottom element to the center. Effectively it's a vertical dipole.
The antenna works great. There were no real adjustments for 10 Meters
but it was wide banded enough to use on the low end of 10 Meters.

I also agree that you should change the cable. It may just be some
type of cheap unmarked coax and would be better off replaced.

Martin

3230. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 21:12:49 UTC
From: w9dmk@crosslink.net
Message-ID: <403fb196.2548764@news.crosslink.net>
Source record: 99352

On Wed, 25 Feb 2004 14:46:42 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

snip....
>With a "conjugate match" the source dissipates 50% of the power and the load
>the other 50%. This can't be changed. Draw the schematic to see. Rs = RL
>therefore Ps = PL. (I'll use a big "L" so it looks like an "L")

Dear Steve,

You may find the information in this article to be of interest
relative to the efficiency in a conjugate match situation.

http://www.qsl.net/w9dmk/ObservationsOnMPTT.htm

73,

Bob

3231. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 21:19:28 UTC
From: Peter Gottlieb <none@bestweb.net>
Message-ID: <103vd2vci9e2c40@corp.supernews.com>
Source record: 99353
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Mydoom.F just got into one machine here which had McAfee running and fully updated. McAfee then could not clean it. The free cleaner from Symantec (Norton AV) did the job.

You can build up all sorts of defences, or you can switch over to Linux, which I am strongly considering for this office.

"Gary S." <Idontwantspam@net> wrote in message news:r7mp305qpnk91ok98coq97aaemimkrris1@4ax.com...
> On Wed, 25 Feb 2004 17:01:23 +0000 (UTC), mikea@mikea.ath.cx (Mike
> Andrews) wrote:
>
> >In <403cce50$1_8@corp.newsgroups.com> (rec.radio.amateur.boatanchors), Cecil Moore wrote:
> >> vcxbbs@eastlink.ca wrote:
> >> >
dbjjvlhdbrpobcmbngkgdtxpoevsvbqgrocymgcgfswjqeknbnzxqlezzbvbydrbkwvttesckwdnmwtcs
> >
> >> Just curious, does this string of letters have any meaning?
> >
> >I suspect it's just a pseudorandomly-generated "hashbuster" to help
> >the spam avoid filters that hash the message body and check against
> >known spam.
>
> Exactly. As spamfiltering has gotten better, the spammers have gotten
> more sophisticated.
>
> The key clue is the attachment. Besides EXE files, ANY files with the
> extensions COM, BAT, SCR, and PIF could also be damaging programs.
> Note that sometimes a file will have a name ending in more than one
> extension, but only the last one matters. More trickery.
>
> Do not open any attachments that you have the slightest suspicion of,
> no matter who appears to have sent them. A friend could have a virus
> on their machine, sending out copies to everyone in their address
> book.
>
> Get a good antivirus program, including Norton Antivirus or MacAfee,
> which gets frequent updates of virus definitions, and run it on EVERY
> file received, via email, Internet, or disk.
>
> The time and money you should put into prevention are a tiny fraction
> of what could be involved in recovering from a virus on your machine.

>
> Happy trails,
> Gary (net.yogi.bear)
> --
> at the 51st percentile of ursine intelligence
>
> Gary D. Schwartz, Needham, MA, USA
> Please reply to: garyDOTschwartzATpoboxDOTcom

3232. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 21:53:03 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402271353.6bb9631f@posting.google.com>
Source record: 99354

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:<c1nlqc$79p$1@titan.btinternet.com>...
> > "When you can measure what you are speaking about and express it in
> numbers
> > you know something about it. But when you cannot measure it, when you
> cannot
> > express it in numbers, your knowledge is of a meagre and unsatisfactory
> > kind. It may be the beginning of knowledge but you have scarcely in your
> > thoughts advanced to the state of science."
> >
> > : William Thomson, Lord Kelvin, 1824-1907.
>
> ================================
>
> To further the education of engineers who contribute to this newsgroup
> here's how to calculate the Q of a half-wave dipole.
>
> For any simple resonant circuit, Q = X/R (ARRL, RSGB, Terman, etc).
>
> where X is the inductive reactance and R is the loss resistance.
>
> Given the numerical data :
>
> Dipole length = 10 metres.
> Dipole diameter = 1mm.
> From which Resonant frequency = 15 MHz.
>
> The distributed inductance of the wire is given by -
>
> L = 0.2*Length*(Ln(2*Length/diameter)-1) micro-henrys.
>
> L = 17.8 micro-henrys.
>
> which has a reactance of j1678 ohms.
>
> Loss resistance, of course, is the distributed radiation resistance which is
> exactly twice the lumped value of 70 ohms at the dipole centre.
>
> Distributed resistance = 2*70 = 140 ohms.
>
> Q = (Distributed Wire Reactance) / (Distributed Wire Resistance)
>
> So Q = 12.0
>

> Which may be a little higher than rule-of-thumb handbook expectations
> because the wire is on the thin side.
>
> Now that wasn't too difficult, was it?
>
> On the other hand, antenna Q is a much overated antenna parameter not of
> much use by itself if only because its effect can be swamped by L,C and R in
> the transmission line and tuner. It's the System Q as seen by the
> transmitter which matters.

O.K. Reg very enlightening when considering that a transmitter is
supplying the bandwidth of choice i.e. a SINGLE signal of around 3
Khz.
Now a receiving (series circuit) dipole with a Q of 12 is compared to
a receive antenna of a (parallel) circuit with a higher Q . One
antenna is receiving a MULTITUDE of signals whereas the high Q antenna
is only seeing one signal together with a output impedance of 50 Ohms
or one of choice to suit the receiver and transmission line.
I am assuming that reprocity reigns when viewed from the receipt of
signals.
Where has my logic gone astray with respect to efficiency of the
antennas based on input energy versus useable energy out?
I appreciate any guidance on this matter .
Cheers
Art

> Reg. G4FGQ

3233. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 21:54:01 UTC
From: tdonaly@aol.com
Message-ID: <20040227165401.09144.00000558@mb-m14.aol.com>
Source record: 99355

>
>To further the education of engineers who contribute to this newsgroup
>here's how to calculate the Q of a half-wave dipole.
>
>For any simple resonant circuit, Q = X/R (ARRL, RSGB, Terman, etc).
>
>where X is the inductive reactance and R is the loss resistance.
>
>Given the numerical data :
>
>Dipole length = 10 metres.
>Dipole diameter = 1mm.
>From which Resonant frequency = 15 MHz.
>
>The distributed inductance of the wire is given by -
>
>L = 0.2*Length*(Ln(2*Length/diameter)-1) micro-henrys.
>
>L = 17.8 micro-henrys.
Reg wrote,
>
>which has a reactance of j1678 ohms.
>
>Loss resistance, of course, is the distributed radiation resistance which is
>exactly twice the lumped value of 70 ohms at the dipole centre.
>
>Distributed resistance = 2*70 = 140 ohms.
>
>Q = (Distributed Wire Reactance) / (Distributed Wire Resistance)
>
>So Q = 12.0
>
>Which may be a little higher than rule-of-thumb handbook expectations
>because the wire is on the thin side.
>
>Now that wasn't too difficult, was it?
>
>On the other hand, antenna Q is a much overated antenna parameter not of
>much use by itself if only because its effect can be swamped by L,C and R in
>the transmission line and tuner. It's the System Q as seen by the
>transmitter which matters.
>----
>Reg. G4FGQ
>

I hope no one takes any of this too seriously.
73,
Tom Donaly, KA6RUH

3234. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 22:29:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7cfv30lf6r242lqgieh7ec25i95qthacnf@4ax.com>
Source record: 99356

On Fri, 27 Feb 2004 14:56:12 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>So Q = 12.0
...
>Now that wasn't too difficult, was it?

Hi Reg,

Not if you neglect, earth, capacitance, a halfwave sized inductor,
basically ignore it is a transmission line....

But the point of this thread was to resolve HOW MANY could compute
(check your query) and any number of correspondents can resolve a Q to
any value to which you have added yet another guess. The Q of antenna
is a moveable target: does it mean against the conventional 50% point
which your evaluation misses by a mile, or against the ad-hoc SWR of
2:1 which is not derived from common principles? The math errors
notwithstanding, anyone can compute a value as shown.

As far as the spectrum of guesses offered go, they confirm Terman's
observation of the loaded Q of the Plate Tank in a final:
"The proper value of Ql ... is a design compromise. A low value
of Ql reduces the reactive energy .... a high value of Ql results in
better discrimination .... A value Ql = 10 represents a typical
compromise. However, in some very high-power Class C amplifiers,
values of Ql as low as 2 or 3 are employed."

All such guesses confirm Terman's assessment of practical application
borne out by decades of observation. The practical rationale of such
Q in the final is easily translated to the Q of any device which
follows. Clearly, High Q antennas (small loops or dipoles) exhibit
considerable loss of efficiency for the same caveats he offers for a
final's plate tank components.

So, as a guessing game, it is amusing but nothing more without the
context of what the Q means. Art fails to accept authority to this
matter and condemns Terman who plainly states:
Efficiency = 1 - (Ql / Qu)
where
Ql: loaded Q
Qu: unloaded Q

This exercise would become even more amusing in watching those attempt
to measure the unloaded Q of this prospective radiator. :-)
(How do you remove the radiation resistance load?) It would
illuminate the absurdity of assigning an Inductance to such a

structure to then mock up an Q assignment.

73's
Richard Clark, KB7QHC

3235. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 22:46:53 UTC
From: dplatt@radagast.org
Message-ID: <103vi6tnvlh2s45@corp.supernews.com>
Source record: 99357

In article <85ed38d.0402271353.6bb9631f@posting.google.com>,
Art Unwin KB9MZ <aunwin@insightbb.com> wrote:

> Now a receiving (series circuit) dipole with a Q of 12 is compared to
>a receive antenna of a (parallel) circuit with a higher Q . One
>antenna is receiving a MULTITUDE of signals whereas the high Q antenna
>is only seeing one signal together with a output impedance of 50 Ohms
>or one of choice to suit the receiver and transmission line.
> I am assuming that reprocity reigns when viewed from the receipt of
>signals.
>Where has my logic gone astray with respect to efficiency of the
>antennas based on input energy versus useable energy out?

As I see it, there's one issues with your logic: your interpretation
of "efficiency" as I understand it, is one which simply makes very
little difference in how well the various antennas actually perform
either for transmitting or receiving.

Based on what I've read, I believe that an antenna with a low Q will
tend to transfer energy more efficiently, over a broader bandwidth,
into a feedline which is impedance-matched to the antenna at the
desired center frequency. It'll approach the "50% of intercepted
energy delivered to the receiver, 50% of intercepted energy
re-radiated" over a wider frequency range.

A high-Q antenna, having a narrower SWR bandwidth, will not be
well-matched to the feedline once you move away from the center
frequency, and it won't transfer the off-center energy into the
feedline efficiently. It'll only approach the "50% of energy
transferred to receiver" goal over a narrow range of frequencies -
outside this frequency range, a large amount (approaching 100%) of the
intercepted energy will be re-radiated.

Now - what does this really mean in practice?

For one thing, it means that you (Art) seem to feel that the high-Q
antenna is "more efficient" than the low-Q antenna, because a higher
percentage of the energy delivered to the receiver is within the
desired receiver passband.

This is *NOT*, however, what anyone else in the universe seems to mean
when they use the word "efficiency" with regard to antennas and
feedline systems, as far as I can tell. It's your own _personal_
meaning of the word "efficiency". That's part of where the confusion
seems to be arising.

As far as I can tell, the *standard* term used to refer to this phenomenon is something along the lines of "antenna pre-selectivity". It means that the antenna and feedline are acting as a narrow-band filter, selecting the signal which reaches the radio's front end.

There can be some definite technical advantages, in some cases, to having a highly-selective antenna. Such an arrangement can keep strong, out-of-the-desired-passband signals out of the radio's front end, helping prevent the RF preamplifier and mixer(s) from being overloaded and distorting/intermodulating. You can thus get better image rejection during reception, in the presence of strong out-of-band signals.

There is, of course, a corresponding technical *dis*advantage to having a narrow-bandwidth antenna - you have to re-tune it every time you re-tune the radio. Owners of small loop antennas are very familiar with this phenomenon.

Art, as I've suggested before, I think you'd be able to communicate better, get better answers to your question, and engender a whole lot *less* confusion and flame-fests, if you'd stick to a couple of simple principles:

- If there *is* a standard technical term for a well-described phenomenon, *use* this term. Don't start inventing new ones, or assigning new and idiosyncratic interpretations to other terms (such as "efficiency").

- If you believe that you *do* need a term to describe a new way of evaluating or measuring or describing a characteristic of an antenna or antenna system, then:

[1] Choose a word which doesn't already have a conflicting meaning,

[2] *DEFINE* the new term clearly and unambiguously, in terms of other technical terms which have well-agreed-upon meanings.

[3] Explain why you feel that this new term or metric is a useful one to use, when evaluating the "goodness" of an antenna or antenna system.

The pitfalls of not doing this should be obvious to you (and everyone) by now. As best as I can tell, you have personally used the word "efficiency" to refer to at least two different (and nonstandard) metrics of an antenna's performance:

- The antenna's maximum directional gain, divided by (or as a function of) the antenna's physical length or size.

- The percentage of the power delivered by the antenna, to the receiver, which actually falls in the desired receiver passband width.

If you're not getting useful or clear answers to your questions, statements, assertions, and proposals, I believe that it is largely

because you are failing to define your newly-invented technical terms clearly enough for other people to understand or agree about what you really mean. Massive confusion is the result.

You're welcome to encourage people to "take a fresh look" at antenna design, but if you insist on discarding the existing well-agreed-upon technical vocabulary and inventing your own private language, you're just not going to get very far in gaining assistance or agreement from anyone else.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3236. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 23:18:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1oj83$b7i$1@sparta.btinternet.com>
Source record: 99358

Proof of the pudding lies in the eating.

Does the formula give the correct answer?

3237. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 23:27:20 UTC
From: "T.E.O" <rfmscpa@earthlink.net>
Message-ID: <snQ%b.12123$aT1.1057@newsread1.news.pas.earthlink.net>
Source record: 99359

I use a 1/2 wave inverted L. Vertical section is 65' - Horizontal section
is 180'.

I feed it with open wire thru a homebuilt link-coupled tuner.

Works FB.

No radials

"Gary Boyer" <gboyer@columbus.rr.com> wrote in message
news:LM2%b.7744$OE4.2458@fe1.columbus.rr.com...
> I am looking for suggestions on erecting a first time 160 meter
antenna..no,
> I don't have and tower and no I don't have any antenna modeling
> software....I am just interested in your thoughts....I have never been on
> 160 and would just like to try it....tnx...Gary..K8BY..Oh..I just live on
a
> average size city lot....few trees....
>
>

3238. Re: Good Moble HF Antenna - Suggestions / Comments?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-27 23:33:08 UTC
From: AE6FL-AAM9ECS <ae6fl@arrl.net>
Message-ID: <2tQ%b.1532$ED1.498@fe03.usenetserver.com>
Source record: 99360

Paul,

Think of the nice Ford that you'd have if you put that new honda money into
it.
You'll miss her when she's gone ...

High Sierra antennas are good. Several Army MARS members use 'em and they
sound as good as some of the qth stations on the MARS Nets.

SGD,
Mike ae6fl

3239. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 00:05:01 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <klmv30pg7i398aee6m00fhrrtiaf77hril@4ax.com>
Source record: 99361

On Fri, 27 Feb 2004 20:27:00 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

|Rich,
|
|From where can I obtain ON4UN's formulae for dipole antenna Q ?
|
|I didn't know anyone else had such things.
|
|Is it short enough to post on this thread.?
|---
|Reg.

You have a short memory.

Quote:

"From: "VE9SRB" <srbest@att.net>
Newsgroups: rec.radio.amateur.antenna
References: <almvodolh1@venus.btinternet.com>
Subject: Re: Trap L/C Ratio and Bandwidth
Lines: 86
X-Priority: 3
X-MSMail-Priority: Normal
X-Newsreader: Microsoft Outlook Express 6.00.2600.0000
X-MIMEOLE: Produced By Microsoft MimeOLE V6.00.2600.0000
Message-ID: <7lHf9.8092$1C2.687370@bgtnsc04-news.ops.worldnet.att.net>
Date: Wed, 11 Sep 2002 13:14:43 GMT
NNTP-Posting-Host: 12.91.17.29
X-Complaints-To: abuse@worldnet.att.net
X-Trace: bgtnsc04-news.ops.worldnet.att.net 1031750083 12.91.17.29
(Wed, 11 Sep 2002 13:14:43 GMT)
NNTP-Posting-Date: Wed, 11 Sep 2002 13:14:43 GMT
Organization: AT&T Worldnet

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:almvodolh1@venus.btinternet.com...
> ONE MORE VERY POPULARLY PLAGIARISED MISCONCEPTION.
>
> Re-write the 'Bibles' !
>

Not just yet.

> It is not true antenna operating Q and hence bandwidth are dependent on
trap

> L/C ratio.
>
> The Q of any resonant system is always a ratio of reactance to resistance.

The Q of a resonant system is not 0.

> In the present context, the resistance concerned is the radiation
resistance
> seen looking back from the trap into the end of the dipole wire. RadRes
> depends on length and diameter of the antenna wire and the frequency.
>

Antenna Q is not determined from the resistance looking from the trap
back
into the antenna wire.

In regards to the trap, the R, L and C properties of the trap will
provide
an indication of the Q of the trap itself and not the antenna system.

For the antenna system, Q is a function of the antenna's feedpoint
impedance
properties which are a function of the antenna's R, L and C properties
and
the translation of the trap's R, L and C properties to the antenna
feedpoint.

For the resonant antenna, Q is not equal to X/R. At resonance X = 0
which,
from the X/R formula, implies that Q = 0 at resonance. It is not.
For an
antenna, determining Q from X/R is only approximately valid for very
high
values of Q, where X >> R. This generally applies at low frequencies
where
the antenna is small.

Near the antenna's resonance, a different method must be used to
determine
antenna Q. One method is to determine Q from the antenna's 1/2 power
impedance bandwidth as follows:

Q = 2 / BW

where BW is the bandwidth determined from the 1/2 power SWR points
where the
ZO used to determine SWR is the antenna's feedpoint resistance. The
1/2
power SWR is equal to 5.828.

Another method is to determine Q directly as follows:

Q = A (B + C)

where A = w / (2 R), w = 2 pi F

B = dX/dw

C = |X|/w

> Trap L and C are *predermined* by the overall length of the antenna, the
> length of antenna beyond the trap, and the two (sometimes three)
frequencies
> at which the antenna is required to be resonant. Their ratio is nowhere
> involved, only their product.
>
> At the trap frequency Q = (Radiation resistance)/(Reactance of L)
> approximately
>

Is this supposed to be the Q of the trap or the Q of the antenna? In
either
case, this formula is not valid. Q is never approximated by Resistance
/
Reactance.

> and the bandwidth for which SWR = 1.5 is 0.41 * MHz /Q.
>

This is not the correct relationship for Q and bandwidth.

<snip>

Steve VE9SRB"

End Quote

3240. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 00:10:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7vmv30hkm8k1g2phb9t3go5364u7ga8hqu@4ax.com>
Source record: 99362

On Fri, 27 Feb 2004 23:18:27 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Proof of the pudding lies in the eating.
>
>Does the formula give the correct answer?

No. The proof is in the application, pedants rely on formalisms.

Are you tripping over your Don's gown?

3241. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 01:13:28 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <YWR%b.70894$Xp.330983@attbi_s54>
Source record: 99363

David I like your response as it was civil and to the point. I ofcourse have
a problem in that I am a relative newby. I say relative because I am not an
electrical engineer and I only have taken up antennas as a hobby in my
retirement. The part I am learning is only a very small segment of
electrical engineering and I do not have the benefit of knowing all the
correct terms that one would learn from a complete education in electrical
engineering.
Now saying that I look at efficiency in two different ways and frankly do
not understand what 'efficiency' represents in modeling programs. Mainly I
look at efficiency as work in versus work out,
very simplisticy work or energy impinged on a radiator surface
relative to the USEABLE energy out, this creates problems when one uses a
communication system or just refering to an antenna alone.
Now back to what you pointed out with respect to high Q antennas. What you
overlooked is that the high Q antenna is a PARALLEL circuit thus the
impedance and bandwidth are related,
when I change frequency the bandpass frequency stays with it and the
impedance looking at the transmission line does not change.
Could you possibly go back to that point and then procede with your
response.
On the other efficiency point, when dealing with parallel circuitry
you are not encumbered with wavelength physical dimensions because parallel
circuitry allows for one single radiating member
or a cluster of short radiating members. It is for that reason I tried to
look at efficiency in a different way and why I migrated to radiation
efficiency per unit length. Yes it may be an unusual way of looking at
things but so is the use of bandpass circuitry in micro size and then
expanding it to a macro size with radiation abilities and no relationship to
wavelength but everything to do ith coupling,,a word much hated on this
newsgroup.
My antenna that I play with is based around a 'T' circuit
which is what the inbuilt tuner of the radio has , so I unhooked the
capacitors and the inductance and put the equivalents into the radiating
antenna circuit which the radio controls remotely and thus ensures constant
Q and constant resonance/ impedance.
I look forward to your response with respect to the original subject but
please leave the merits of my antenna out of it so that levity prevails
Best regards and thanks
Art

"Dave Platt" <dplatt@radagast.org> wrote in message
news:103vi6tnvlh2s45@corp.supernews.com...
> In article <85ed38d.0402271353.6bb9631f@posting.google.com>,
> Art Unwin KB9MZ <aunwin@insightbb.com> wrote:

>
> > Now a receiving (series circuit) dipole with a Q of 12 is compared to
> >a receive antenna of a (parallel) circuit with a higher Q . One
> >antenna is receiving a MULTITUDE of signals whereas the high Q antenna
> >is only seeing one signal together with a output impedance of 50 Ohms
> >or one of choice to suit the receiver and transmission line.
> > I am assuming that reprocity reigns when viewed from the receipt of
> >signals.
> >Where has my logic gone astray with respect to efficiency of the
> >antennas based on input energy versus useable energy out?
>
> As I see it, there's one issues with your logic: your interpretation
> of "efficiency" as I understand it, is one which simply makes very
> little difference in how well the various antennas actually perform
> either for transmitting or receiving.
>
> Based on what I've read, I believe that an antenna with a low Q will
> tend to transfer energy more efficiently, over a broader bandwidth,
> into a feedline which is impedance-matched to the antenna at the
> desired center frequency. It'll approach the "50% of intercepted
> energy delivered to the receiver, 50% of intercepted energy
> re-radiated" over a wider frequency range.
>
> A high-Q antenna, having a narrower SWR bandwidth, will not be
> well-matched to the feedline once you move away from the center
> frequency, and it won't transfer the off-center energy into the
> feedline efficiently. It'll only approach the "50% of energy
> transferred to receiver" goal over a narrow range of frequencies -
> outside this frequency range, a large amount (approaching 100%) of the
> intercepted energy will be re-radiated.
>
> Now - what does this really mean in practice?
>
> For one thing, it means that you (Art) seem to feel that the high-Q
> antenna is "more efficient" than the low-Q antenna, because a higher
> percentage of the energy delivered to the receiver is within the
> desired receiver passband.
>
> This is *NOT*, however, what anyone else in the universe seems to mean
> when they use the word "efficiency" with regard to antennas and
> feedline systems, as far as I can tell. It's your own _personal_
> meaning of the word "efficiency". That's part of where the confusion
> seems to be arising.
>
> As far as I can tell, the *standard* term used to refer to this
> phenomenon is something along the lines of "antenna pre-selectivity".
> It means that the antenna and feedline are acting as a narrow-band
> filter, selecting the signal which reaches the radio's front end.
>
> There can be some definite technical advantages, in some cases, to

> having a highly-selective antenna. Such an arrangement can keep
> strong, out-of-the-desired-passband signals out of the radio's front
> end, helping prevent the RF preamplifier and mixer(s) from being
> overloaded and distorting/intermodulating. You can thus get better
> image rejection during reception, in the presence of strong
> out-of-band signals.
>
> There is, of course, a corresponding technical *dis*advantage to
> having a narrow-bandwidth antenna - you have to re-tune it every time
> you re-tune the radio. Owners of small loop antennas are very
> familiar with this phenomenon.
>
> Art, as I've suggested before, I think you'd be able to communicate
> better, get better answers to your question, and engender a whole lot
> *less* confusion and flame-fests, if you'd stick to a couple of simple
> principles:
>
> - If there *is* a standard technical term for a well-described
> phenomenon, *use* this term. Don't start inventing new ones, or
> assigning new and idiosyncratic interpretations to other terms
> (such as "efficiency").
>
> - If you believe that you *do* need a term to describe a new way of
> evaluating or measuring or describing a characteristic of an
> antenna or antenna system, then:
>
> [1] Choose a word which doesn't already have a conflicting meaning,
>
> [2] *DEFINE* the new term clearly and unambiguously, in terms of
> other technical terms which have well-agreed-upon meanings.
>
> [3] Explain why you feel that this new term or metric is a useful
> one to use, when evaluating the "goodness" of an antenna or
> antenna system.
>
> The pitfalls of not doing this should be obvious to you (and everyone)
> by now. As best as I can tell, you have personally used the word
> "efficiency" to refer to at least two different (and nonstandard)
> metrics of an antenna's performance:
>
> - The antenna's maximum directional gain, divided by (or as a
> function of) the antenna's physical length or size.
>
> - The percentage of the power delivered by the antenna, to the
> receiver, which actually falls in the desired receiver passband
> width.
>
> If you're not getting useful or clear answers to your questions,
> statements, assertions, and proposals, I believe that it is largely
> because you are failing to define your newly-invented technical terms

> clearly enough for other people to understand or agree about what you
> really mean. Massive confusion is the result.
>
> You're welcome to encourage people to "take a fresh look" at antenna
> design, but if you insist on discarding the existing well-agreed-upon
> technical vocabulary and inventing your own private language, you're
> just not going to get very far in gaining assistance or agreement from
> anyone else.
>
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

3242. sma connector question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 01:44:14 UTC
From: anon@anon.com
Message-ID: <OnS%b.73606$4o.94609@attbi_s52>
Source record: 99364

I am assembling an sma connector for an antenna and I was wondering, is the female contact suppose to fit over the male contact or are they just suppose to touch?

-Thanks

3243. Re: Combining Two Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 02:15:03 UTC
From: k9sqg@aol.com
Message-ID: <20040227211503.22733.00000491@mb-m10.aol.com>
Source record: 99365

You run the risk of phase interference from the antennas not to mention potentially more noise pickup.

3244. Directional antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 09:12:10 UTC
From: google@sale-net.com.au
Message-ID: <6a3f6a71.0402280112.48cf08dd@posting.google.com>
Source record: 99366

Hi all.

I have a need for a direction antenna. I only know of Yagi's and have been searching the google type search engines for info and shareware to design one and only seem to be able to find DOS programs or ANALYSIS software.

I really do not understand a lot of the stuff the analysis software will tell me but basically I would like to enter a freq, the number of reflectors etc, the diameter of the reflectors and have it spit out a bit of a drawing with dimensions and lengths. Again it doesn't have to be a Yagi but I have access to square box aluminium and solid aluminium rod. I need to know such things like "Are the reflectors etc bonded to the centre or electricaly isolated" and stuff like that.

Can anyone give me a URL that will help me out instead of waiding through the useless info (useless cause I don't understand all the tech stuff) on google etc?

Regards, Peter

3245. Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 09:35:46 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c1pnbl$1ltcof$1@ID-150848.news.uni-berlin.de>
Source record: 99367

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3077597082

This antenna is a mystery. No-one can identify it from the picture. It's made in Japan and model number is CA-815.

I now have this antenna and can give the dimentions.

```
|
| A variable appx 17" (43 Cm)
|
| | B 4" (10 Cm)
| |
|
|
| C 59" (150 Cm)
|
|
-------------X--------------
D D 28" (71 Cm)
```

Tube A is adjustable it's about 17" long when in mid position.

B from the outside looks like a 4" long metal tube. A enters the "tube" from the top, but is insulated from it. Likewise C enters the "tube" from below and also insulated from it. I wonder if within B is a coil.

Tube C is 59" long.

Radials D are 28" long, but it looks to me as if they have a loading coil which is located at the beginning. Coils not equal length for eachground plane radial.

On the information sheet it shows a picture of a radio set they call "BASE UNIT" It highlights an antenna select switch and tells you to select external. So, to me, it looks like this antenna is meant for a receiver.

This antenna is ground plane type, it looks like a ground plane.

Hope it can now be identified. I've no idea what it's for. Is it either an AM or FM outdoor antennna? Or both?

TIA.

Rich.

3246. Re: sma connector question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 10:52:49 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <5q_%b.5940$Zp.1814@fed1read07>
Source record: 99368

<anon@anon.com> wrote in message news:OnS%b.73606$4o.94609@attbi_s52...
> I am assembling an sma connector for an antenna and I was wondering, is
the female contact
> suppose to fit over the male contact or are they just suppose to touch?
>
> -Thanks
>
>

Touching is just a tease; it has to penetrate to be good!

Ed
wb6wsn

3247. Re: Good Moble HF Antenna - Suggestions / Comments?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 11:55:34 UTC
From: Paul - KD5SRL <***@***.***>
Message-ID: <iqv040hiim0hasc6gruoskgddaat3bevhl@4ax.com>
Source record: 99219

Mike,

I love my F150 4x4 but she's got almost 150,000 miles on her and is
starting to show signs of needing some failrly expensive restoration.
I drive 500 miles per week and though it's highway miles for the most
part, I don't know how reliable she will continue to be.

I'm looking to scale down to a smaller vehicle that I can deck out
with some nice radio gear. The Honda Element has that look that a
couple of nice antennas would drastically improve the appearance. :)

Thanks for you input. I know the High Sierra will be limited on some
bands. I'm highly considering a Kenwood, TX-B2000. It has all the
whistles and bells for a moble rig. I have a 2000 at home and love it.
I know I'm not going to win a DX contest with it but it's a great all
in one rig, in my humble oppenion.

Thanks Mike Once Again and 73s

Paul - KD5SRL

On Fri, 27 Feb 2004 15:33:08 -0800, "AE6FL-AAM9ECS" <ae6fl@arrl.net>
wrote:

>Paul,
>
>Think of the nice Ford that you'd have if you put that new honda money into
>it.
>You'll miss her when she's gone ...
>
>High Sierra antennas are good. Several Army MARS members use 'em and they
>sound as good as some of the qth stations on the MARS Nets.
>
>SGD,
>Mike ae6fl
>
>

3248. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 15:47:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4040b827_1@corp.newsgroups.com>
Source record: 99220

Tam/WB2TT wrote:
> What constitutes bandwidth is a good question. Generally, for a series RLC
> lumped parameter network, the bandwidth is between the points where the
> phase angle is between +/- 45 degrees. For a dipole, the R changes as you
> change frequency. So, is the bandwidth determined by the +/- 45 degree
> frequencies, or where X= +/- j72? Or whichever is less?

Antenna bandwidth apparently can be anything depending upon one's
definition of "bandwidth". If the definition is not supplied,
"bandwidth" is just a buzzword.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3249. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 15:48:38 UTC
From: Bob <nospam@nowhere.nobody.forgetit.nil>
Message-ID: <dL20c.7015$2c6.51746@news20.bellglobal.com>
Source record: 99221

Richard wrote:
> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3077597082
>

Are the 'tubes' solid, or hollow and contain mercury?

3250. Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 16:21:26 UTC
From: Winston <win@here.com>
Message-ID: <bef1405sbqlpq7nac056lt7b1dqj6e0rju@4ax.com>
Source record: 99222

Looking for a nonconductive center support mast for a 130 ft long
windom. Must free stand at least 20 ft. Does anyone have any ideas?

Win w0lz

3251. Re: Good Moble HF Antenna - Suggestions / Comments?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 16:41:16 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <403f6db8_4@newsfeed.slurp.net>
Source record: 99223

Yeah, but Hi-Q antennas are better, and they aren't being sued by Don Johnson...

- Mike KI6PR
El Rancho R.F., CA

"AE6FL-AAM9ECS" wrote
> Paul,
>
> Think of the nice Ford that you'd have if you put that new honda money into
> it.
> You'll miss her when she's gone ...
>
> High Sierra antennas are good. Several Army MARS members use 'em and they
> sound as good as some of the qth stations on the MARS Nets.
>
> SGD,
> Mike ae6fl
>
>
>

3252. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 16:56:01 UTC
From: k9sqg@aol.com
Message-ID: <20040228115601.12138.00000570@mb-m02.aol.com>
Source record: 99224

16 ft painter's pole coupled to a 10 ft TV mast, fiberglass hotsticks (forget finding a used one) that are up to 40 ft long, telescoping fiberglass sections from MaxGain systems, to name a few. Don't even think about the MFJ mast if durability is a concern.

73s,

Evan

3253. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 17:02:02 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <eQ30c.425204$xy6.2481892@attbi_s02>
Source record: 99225

Cecil
I thought this term was an accepted one, at least in Europe.
Maximum current occurs only at the resonant point but their is a
small range of frequencies on either side of resonance where the current is
almost as large. This band of frequencies is called the resonant band.. That
is NOT A BUZZ WORD that sounds derogatory!
Curves which because of their shape (corresponding to .707 current) that
are wide have a wide bandpass. Those with a small separation have a narrow
bandpass. Now the resonant band or bandpass of a circuit is also referred to
as bandwidth. All three terms mean the same thing.
Now this may only be true in Europe (old Europe) but Americans often refer
to the likes of Maxwell, Heavyside,Einstein e.t.c. which are all Europeans
so they are not rejecting all that comes from Europe. So Cecil, where are
you going with this so called buzzword comment, possibly a distraction from
the subject at hand that you are soooo, sooooo good at that leads to long
threads and eventual flames? You could have asked for a definition instead
of spouting something derogatory. Delaying comment is sometimes termed as
being wise.

Best regards
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4040b827_1@corp.newsgroups.com...
> Tam/WB2TT wrote:
> > What constitutes bandwidth is a good question. Generally, for a series
RLC
> > lumped parameter network, the bandwidth is between the points where the
> > phase angle is between +/- 45 degrees. For a dipole, the R changes as
you
> > change frequency. So, is the bandwidth determined by the +/- 45 degree
> > frequencies, or where X= +/- j72? Or whichever is less?
>
> Antenna bandwidth apparently can be anything depending upon one's
> definition of "bandwidth". If the definition is not supplied,
> "bandwidth" is just a buzzword.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3254. Re: Mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 17:15:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4040ccba$1_7@corp.newsgroups.com>
Source record: 99226

Winston wrote:
> Looking for a nonconductive center support mast for a 130 ft long
> windom. Must free stand at least 20 ft. Does anyone have any ideas?

Of course, the antenna guys it in two directions. A 20 ft. fiberglas tube would bend but not break in the other two directions. The bottom 20 ft. of my supports are 2x4's fastened in a 4x4 configuration which would probably be self-supporting at 20 ft. But maybe not through those Zero-land tornados.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3255. FS: Antenna Tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 17:42:07 UTC
From: k9sqg@aol.com
Message-ID: <20040228124207.22698.00000590@mb-m10.aol.com>
Source record: 99227

Nye Viking MBVA, $450 shipped, continental US only.
Millen 92201, $115 shipped, continental US only.

Thanks for reading the posting.

73s,

Evan

3256. FS-KLM 17M 3 ELEMENT BEAM

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 17:48:22 UTC
From: n2ion@aol.com
Message-ID: <20040228124822.06530.00000587@mb-m25.aol.com>
Source record: 99228

I HAVE FOR SALE A NEW KLM 3 ELEMENT, 17M YAGI ON AN 18' BOOM.
ANTENNA IS NEW, BUT HAS BEEN ASSEMBLED & NEVER USED.

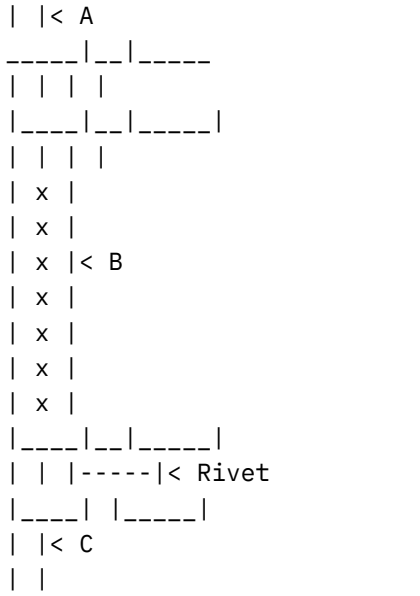
PRICE IS $300 + S & H

3257. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 18:43:47 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c1qnej$1lv2a2$1@ID-150848.news.uni-berlin.de>
Source record: 99229

All the vertical part of the antenna is made of
aluminum tubing. B is a short peice of fatter
aluminum tubing than either A or C. C
electrically connects with A, so I presume
there is a coil within aluminium tube B. Tube
B, at the bottom, looks rivited to tube C.

So I'm saying B is like:



There are insulated collarsat both ends of B.

X represents assumed coil connecting A to C.

[Best viewed with a monospaced font like courier new.

Tools>Options>Read>Font

Proportional Font:Courier New]

3258. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 19:27:08 UTC
From: richardharrison@webtv.net
Message-ID: <20456-4040EB8C-74@storefull-3254.bay.webtv.net>
Source record: 99230

Reg, G4FGQ wrote:
"Is it short enough to post on this thread?"

Maybe I can`t hardly post it.

From page 5-7 of "Low-Band DXing" By John Devoldere, ON4UN, ARRL publisher:

ON4UN calculates an example of Q for a dipole under the heading of "The transmission-line equivalent".

Zsurge=276xlog[S/dxsqrt(1+S/4h)]
S=length of antenna
d=diameter of antenna
h=height of antenna above ground

Q=Zsurge/Rrad+Rloss

A 40-m (131 ft) long dipole, at 20 m (66 ft) height is made of 2mm OD wire (AWG 12). The feed-point impedance is 75 ohms.

Zsurge=276xlog[4000 / 0.2xsqrt(1+4000/4x2000)] = 1163 ohms

Q = 1163 / 75 = 16

I just copied from the page as printed. I Haven`t worked the example to check what ON4UN actually did. I got out my CRC Handbook of Chemistry and Physics for its logarithm tables, but haven`t turned the crank yet.

Best regards, Richard Harrison, KB5WZI

3259. Balun's... I'm confused...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 20:44:14 UTC
From: Fred <fredg@SPAMMENOT.fastmail.fm>
Message-ID: <1041v3lal4otcd@corp.supernews.com>
Source record: 99231

Hi,

I am cleaning up and putting back into service my old Channel Master scanner antenna. This antenna is similar to the Scantena:

http://users.cis.net/kingpop/Scanner/Scantenna.htm

My question has to do with the Balun. I plan to use RG-6 cable with this Balun from Radio Shack (standard TV type 300 ohm to 75 ohm):

http://www.radioshack.com/product.asp?catalog%5Fname=CTLG&product%5Fid=15-1140

Does anyone see a problem using this Balun? The original Balun that came with the Channel Master was a more heavy duty looking one..

When I do a continuity check on the new TV type balun I get a dead short when connecting my meter across the two leads. I get nothing at the F connector... like it is not even connected to the leads.

When I do a check of my old balun (that is cracked and weathered) I get a dead short from the center of the F connector to either of the leads.. I get nothing at the outside of the F connector. I also get the dead short when testing across the leads.

Thanks for any advice on this!!

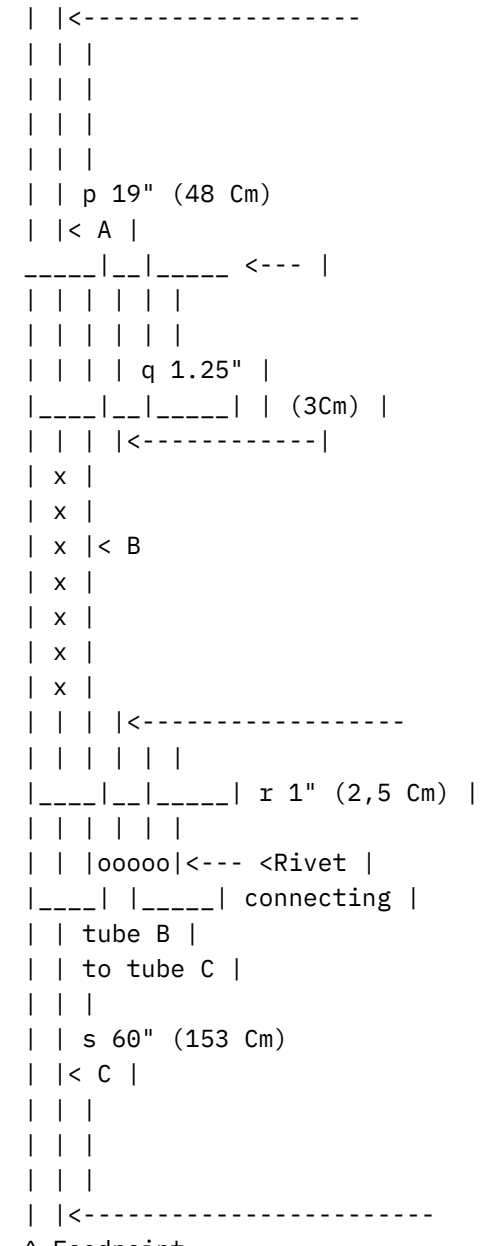
Fred
KD6ZDJ
fredg@SPMFLTER.fastmail.fm
(remove SPMFLTER to reply)

3260. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 20:45:23 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c1quj2$1m961d$1@ID-150848.news.uni-berlin.de>
Source record: 99232

Richard wrote:
> All the vertical part of the antenna is made of
> aluminum tubing. B is a short peice of fatter
> aluminum tubing than either A or C. C
> electrically connects with A, so I presume
> there is a coil within aluminium tube B. Tube
> B, at the bottom, looks rivited to tube C.
>
> So I'm saying B is like:
>
> | |< A
> _____|__|_____
> | | | |
> |____|__|_____|
> | | | |
> | x |
> | x |
> | x |< B
> | x |
> | x |
> | x |
> | x |
> |____|__|_____|
> | | |-----|< Rivet
> |____| |_____|
> | |< C
> | |
>
>
>
> There are insulated collarsat both ends of B.
>
> X represents assumed coil connecting A to C.
>
>
> [Best viewed with a monospaced font like courier new.
>
> Tools>Options>Read>Font
>
> Proportional Font:Courier New]

Okay I removed tube B and made measurements. Here are
the details that ought to allow someone to do
calculations for the vertical part of the antenna:



Tube B is a 4"(10 Cm) long tube.

Tube B connects to tube C 1" (2,5 Cm)from the top of tube C. Tube B in fact shrouds the top 1" of tube C. Top of tube C connects to the bottom end of a coil shown by x's. The top end of the coil connects to tube A which is 19" (48 Cm)long.The top part of tube B shrouds over the bottom part of tube A by 1.25"(3Cm).

I got the inductance of the coil to be appx 3uH.

Length: 24mm
O.D. coil: 23mm
Turns:13

Spacing: Closewound
Wire diameter:1.5mm

So I suppose next task is to calcuate
the resonant frequency of the vertical part
of the antenna. Thing is,is it meant to
be a quarter wave half wave 5/8th wave or
what. The feedpoint impedance I reckon will
be 50 or 75 Ohms. I don't know how to calculate
this.

The 3 radials are 28" (71 Cm)long, but appear
to have small coils at the beginning of the
radials. The coils on two of the radials look
the same, and the coil on the third radial looks
about twice as long as the other two coils. The
smaller coil inductances seems to be very
approximately 0.330 uH, so the inductance of the
larger coil on the third radial is about 0.660 uH.

Smaller radial coils data:

Length: 7.5mm
O.D. of coil: 12mm
Turns: 5
Spacing: Closewound
Wire Diameter: 1.5mm

larger radial coil data:

Length: 7.5mm
O.D. of coil: 24mm
Turns: 5
Spacing: Closewound
Wire Diameter: 1.5mm

Perhaps now these data might help figure
out what frequency this antenna is for.I hope.

[Best viewed with a monospaced font like courier new.

Tools>Options>Read>Font

Proportional Font:Courier New]

3261. Re: Balun's... I'm confused...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 20:46:01 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4040FE09.CA3A03A9@cwis.net>
Source record: 99233

Fred,
That sounds about right, ought to work okay.
'Doc

3262. cobwebb

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 20:57:15 UTC
From: David Browne <dddd@ddd>
Message-ID: <20040228155705.179$Wv@news.newsreader.com>
Source record: 99234

hi has any one used this ant, will it tune to 40 meters using atu
thanks dave browne

3263. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 21:01:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1qvk1$c2s$1@hercules.btinternet.com>
Source record: 99235

Richard wrote -
> From page 5-7 of "Low-Band DXing" By John Devoldere, ON4UN, ARRL
> publisher:
>
> ON4UN calculates an example of Q for a dipole under the heading of "The
> transmission-line equivalent".
>
> Zsurge=276xlog[S/dxsqrt(1+S/4h)]
> S=length of antenna
> d=diameter of antenna
> h=height of antenna above ground
>
> Q=Zsurge/Rrad+Rloss
>
> A 40-m (131 ft) long dipole, at 20 m (66 ft) height is made of 2mm OD
> wire (AWG 12). The feed-point impedance is 75 ohms.
>
> Zsurge=276xlog[4000 / 0.2xsqrt(1+4000/4x2000)] = 1163 ohms
>
> Q = 1163 / 75 = 16
>
==========

Dear Rich,

For some obscure reason it is usually difficult to obtain a reply to my sort of question. Your prompt reply is appreciated. Precisely what I asked for. No more and no less.

His equation gives results for Q somewhat higher than mine does but, for practical purposes, both are in the same ball park. I must try to fathom out how ON4UN's version has been derived.

(By the way, it is usual to use the symbol * to signify algebraic multiplication. ie., 3*4 = 12)

Yours, Reg, G4FGQ

3264. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 21:03:46 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <y76dnTRAG46un9zdRVn-hA@comcast.com>
Source record: 99236

Richard,

Why don't you go to the web site you referenced, and click on "Ask seller a question", or doesn't he know? I did not read the whole thing. With the loading coils, it might be an 11 meter antenna.

TYam/WB2TT
"Richard" <nearlynews_email@ntlworld.com> wrote in message news:c1pnbl$1ltcof$1@ID-150848.news.uni-berlin.de...
> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3077597082
>
> This antenna is a mystery. No-one can identify it from the picture. It's
> made in Japan and model number is CA-815.
>
> I now have this antenna and can give the dimentions.
>
> |
> | A variable appx 17" (43 Cm)
> |
> | | B 4" (10 Cm)
> | |
> |
> |
> | C 59" (150 Cm)
> |
> |
> -------------X--------------
> D D 28" (71 Cm)
>
> Tube A is adjustable it's about 17" long when in mid position.
>
> B from the outside looks like a 4" long metal tube. A enters the "tube"
> from the top, but is insulated from it. Likewise C enters the "tube" from
> below and also insulated from it. I wonder if within B is a coil.
>
> Tube C is 59" long.
>
> Radials D are 28" long, but it looks to me as if they have a loading coil
> which is located at the beginning. Coils not equal length for eachground
> plane radial.
>
> On the information sheet it shows a picture of a radio set they call "BASE
> UNIT" It highlights an antenna select switch and tells you to select
> external. So, to me, it looks like this antenna is meant for a receiver.
>

> This antenna is ground plane type, it looks like a ground plane.
>
> Hope it can now be identified. I've no idea what it's for. Is it either
an
> AM or FM outdoor antennna? Or both?
>
> TIA.
>
> Rich.
>
>

3265. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 21:25:17 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <L_ydnSnNk-dgm9zdRVn-gQ@comcast.com>
Source record: 99237

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c1pnbl$1ltcof$1@ID-150848.news.uni- Is it either an
> AM or FM outdoor antennna? Or both?
>
>

Both.

3266. Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 21:42:38 UTC
From: <>
Message-ID: <20040228164238.24842.00000615@mb-m26.aol.com>
Source record: 99239

Hi all:

I've been thinking about making a vertically polarized Delta Loop for 40m. I've seen articles on the internet having the feed point at one of the lower corners of the triangle for vertical polorization, others having the feed point on one of the sides, 1/4 wl from the top. Does it make any difference if its sloping (within reason) or does it need to be perpendicular to the ground?

Anyone here have any experience here?

Thanks,

Bob--KD8WU

U of M
GO BLUE!!

GOD, GUNS, and GUTS
PROTECT AMERICA

3267. Re: Balun's... I'm confused...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 21:44:40 UTC
From: Fred <fredg@SPAMMENOT.fastmail.fm>
Message-ID: <10422kvclttn4f7@corp.supernews.com>
Source record: 99238

So which one is correct of these 2 scenarios, is one of the balun's bad?

Thanks for the reply!!

1) When I do a continuity check on the new TV type balun I get a dead short when connecting my meter across the two leads. I get nothing at the F connector... like it is not even connected to the leads.

2) When I do a check of my old balun (that is cracked and weathered) I get a dead short from the center of the F connector to either of the leads.. I get nothing at the outside of the F connector. I also get the dead short when testing across the leads.

"'Doc" <w5lz@cwis.net> wrote in message news:4040FE09.CA3A03A9@cwis.net...
>
>
> Fred,
> That sounds about right, ought to work okay.
> 'Doc

3268. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 22:27:49 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <40411599.9010008@comcast.net>
Source record: 99240

Art, 'bandwidth' in technical/engineering terms is generally accepted as
the -3 dB point[s].

I suggest that all other interpretations are non technical
interpretations with loosely undefined terms.

"What is the bandwidth?" MUST be understood as the -3 dB points.
"What are the 2:1 VSWR points?" is more valid than "What is the 2:1 VSWR
bandwidth?"
"What are the 3:1 VSWR points?" is more valid than "What is the 3:1 VSWR
bandwidth?"

But, "What is the 5.88:1 VSWR Bandwidth" is a VALID question!!!!!!! BTW,
5.88:1 VSWR is the -3 dB point.

DD

aunwin wrote:

> Cecil
> I thought this term was an accepted one, at least in Europe.
> Maximum current occurs only at the resonant point but their is a
> small range of frequencies on either side of resonance where the current is
> almost as large. This band of frequencies is called the resonant band.. That
> is NOT A BUZZ WORD that sounds derogatory!

SNIP

BTW, 'resonant band' as used above is NOT bandwidth! It might be
something else but if you can't measure it it is subjective not objective.

Is +/- 5 degrees of current, 85-90-85 degrees, the resonant band?

Or, is +/- 10 degrees of current, 80-90-80 degrees, the resonant band?

or, is +/- 19.3 degrees of current, 70.7-90-70.7 degrees, the resonant band.

You have to become more specific in your use of terms!!

DD

3269. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 22:32:50 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c1r4s8$1lih6m$1@ID-150848.news.uni-berlin.de>
Source record: 99241

```
Richard wrote:
> Richard wrote:
>> All the vertical part of the antenna is made of
>> aluminum tubing. B is a short peice of fatter
>> aluminum tubing than either A or C. C
>> electrically connects with A, so I presume
>> there is a coil within aluminium tube B. Tube
>> B, at the bottom, looks rivited to tube C.
>>
>> So I'm saying B is like:
>>
>> | |< A
>> _____|__|_____
>> | | | |
>> |____|__|_____|
>> | | | |
>> | x |
>> | x |
>> | x |< B
>> | x |
>> | x |
>> | x |
>> | x |
>> |____|__|_____|
>> | | |-----|< Rivet
>> |____| |_____|
>> | |< C
>> | |
>>
>>
>>
>> There are insulated collarsat both ends of B.
>>
>> X represents assumed coil connecting A to C.
>>
>>
>> [Best viewed with a monospaced font like courier new.
>>
>> Tools>Options>Read>Font
>>
>> Proportional Font:Courier New]
>
> Okay I removed tube B and made measurements. Here are
> the details that ought to allow someone to do
```

> calculations for the vertical part of the antenna:
>
>
> | |<-------------------
> | | |
> | | |
> | | |
> | | |
> | | p 19" (48 Cm)
> | |< A |
> _____|__|_____ <--- |
> | | | | | |
> | | | | | |
> | | | | q 1.25" |
> |____|__|_____| | (3Cm) |
> | | | |<------------|
> | x |
> | x |
> | x |< B
> | x |
> | x |
> | x |
> | x |
> | | | |<------------------
> | | | | | |
> |____|__|_____| r 1" (2,5 Cm) |
> | | | | | |
> | | |ooooo|<--- <Rivet |
> |____| |_____| connecting |
> | | tube B |
> | | to tube C |
> | | |
> | | s 60" (153 Cm)
> | |< C |
> | | |
> | | |
> | | |
> | |<------------------------
> ^ Feedpoint
>
> Tube B is a 4"(10 Cm) long tube.
>
> Tube B connects to tube C 1" (2,5 Cm)from the
> top of tube C. Tube B in fact shrouds the top
> 1" of tube C. Top of tube C connects to the
> bottom end of a coil shown by x's. The top end
> of the coil connects to tube A which is 19"
> (48 Cm)long.The top part of tube B shrouds
> over the bottom part of tube A by 1.25"(3Cm).
>

>
> I got the inductance of the coil to be appx 3uH.
>
> Length: 24mm
> O.D. coil: 23mm
> Turns:13
> Spacing: Closewound
> Wire diameter:1.5mm
>
> So I suppose next task is to calcuate
> the resonant frequency of the vertical part
> of the antenna. Thing is,is it meant to
> be a quarter wave half wave 5/8th wave or
> what. The feedpoint impedance I reckon will
> be 50 or 75 Ohms. I don't know how to calculate
> this.
>
> The 3 radials are 28" (71 Cm)long, but appear
> to have small coils at the beginning of the
> radials. The coils on two of the radials look
> the same, and the coil on the third radial looks
> about twice as long as the other two coils. The
> smaller coil inductances seems to be very
> approximately 0.330 uH, so the inductance of the
> larger coil on the third radial is about 0.660 uH.
>
> Smaller radial coils data:
>
> Length: 7.5mm
> O.D. of coil: 12mm
> Turns: 5
> Spacing: Closewound
> Wire Diameter: 1.5mm
>
> larger radial coil data:
>
> Length: 7.5mm
> O.D. of coil: 24mm
> Turns: 5
> Spacing: Closewound
> Wire Diameter: 1.5mm
>
> Perhaps now these data might help figure
> out what frequency this antenna is for.I hope.
>
> [Best viewed with a monospaced font like courier new.
>
> Tools>Options>Read>Font
>
> Proportional Font:Courier New]

This post is perfect for this group. Now that I've posted all the necessary
the data it ought to be fathomable..

Reg, you must be able to work this antenna out.

3270. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-28 23:04:14 UTC
From: tdonaly@aol.com
Message-ID: <20040228180414.08983.00000500@mb-m13.aol.com>
Source record: 99242

Dave wrote,
>
>Art, 'bandwidth' in technical/engineering terms is generally accepted as
>the -3 dB point[s].
>
>I suggest that all other interpretations are non technical
>interpretations with loosely undefined terms.
>
>"What is the bandwidth?" MUST be understood as the -3 dB points.
>"What are the 2:1 VSWR points?" is more valid than "What is the 2:1 VSWR
>bandwidth?"
>"What are the 3:1 VSWR points?" is more valid than "What is the 3:1 VSWR
>bandwidth?"
>
>But, "What is the 5.88:1 VSWR Bandwidth" is a VALID question!!!!!!! BTW,
>5.88:1 VSWR is the -3 dB point.
>
>DD
>

Art's interpretation is as good as anyone's. Read what Balanis writes about
"bandwidth." "Because the characteristics (input impedance, pattern, gain,
polarization, etc.) of an antenna do not necessarily vary in the same manner
or are even critically affected by the frequency, there is no unique
characterization
of the bandwidth. The specifications are set in each case to meet the needs of

the particular application." He then goes on to write how the word "bandwidth"

has been used in various contexts. There's no point in being overly formal or
didactic about what constitutes bandwidth. Just explain what is meant,
beforehand, and everyone should be happy.
73,
Tom Donaly, KA6RUH

3271. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 00:32:00 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <gdc240lbn610nnvakosa145i2naajafkel@4ax.com>
Source record: 99243

That was it. There is a 2" aluminum tube over a 1 1/4" stainless steel "jackshaft". It's held with two 1/4" bolts. Holes thru aluminum tube were elongated. Drilled to 3/8". Unfortunately, these aren't perfectly round, either, since I drilled 'em with a hand drill, but I'm hoping the torque I put on the 3/8" bolts will crush the aluminum tube into clamping on the stainless steel. We'll see. If not, I can drill more holes thru that assembly and put more bolts in. It seemed more solid, but next big wind, I'll have a look.

Thanks again for the tip.

Dave Head

On Sun, 22 Feb 2004 14:46:54 -0600, "Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote:

>Dave:
>
>From that description, I suspect you are going to find all the bolt holes in
>the tubing elongated from torque. We usually drill slightly oversize holes
>for our fasteners, but in this high stress application, the holes should
>start undersize so the fasteners have to be driven in and are tight from the
>get-go. Also, it is necessary to select fasteners which do not have threads
>where they pass through the walls of the tubes. This is often the most
>difficult challenge.

3272. Re: Directional antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 00:32:35 UTC
From: Geoff <k@l.f>
Message-ID: <Oqa0c.974$qP4.701@newsfe1-win>
Source record: 99244

Just buy one, it's easier and will work.

"Peter" <google@sale-net.com.au> wrote in message
news:6a3f6a71.0402280112.48cf08dd@posting.google.com...
> Hi all.
>
> I have a need for a direction antenna. I only know of Yagi's and have
> been searching the google type search engines for info and shareware
> to design one and only seem to be able to find DOS programs or
> ANALYSIS software.
>
> I really do not understand a lot of the stuff the analysis software
> will tell me but basically I would like to enter a freq, the number of
> reflectors etc, the diameter of the reflectors and have it spit out a
> bit of a drawing with dimensions and lengths. Again it doesn't have to
> be a Yagi but I have access to square box aluminium and solid
> aluminium rod. I need to know such things like "Are the reflectors etc
> bonded to the centre or electricaly isolated" and stuff like that.
>
> Can anyone give me a URL that will help me out instead of waiding
> through the useless info (useless cause I don't understand all the
> tech stuff) on google etc?
>
> Regards, Peter

3273. Re: 2M/70cm on TV Mast..help please

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 00:41:54 UTC
From: Geoff <k@l.f>
Message-ID: <xza0c.981$qP4.979@newsfe1-win>
Source record: 99245
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

Hi Paul,

The radiation level below the aerial is just the same underneath as it is above. If radiation was "low" underneath it then no one living by a TV/radio mast would see or hear anything! Think about it.
If you put it too close to a TV aerial your TV will get hammered, especially if you have a digital box. You also run the risk of detuning your X50, so the SWR will shoot up. Keep the X50 and TV aerial about 5ft apart. The other problem is that RF from the X50 will go straight down the coax braid. 2m will do far more damage to the TV than 70cm as strange as that might sound.

"Paul" <nospam@pllllleaaseeee.com> wrote in message news:c1gklf$3pj$1@hercules.btinternet.com...
> Hi,
>
> I would like to reposition my 2M/70cm Vertical (Diamond X50) to a higher
> position.
>
> One option is to mount it above the TV aerial, I understand that the signal
> radiation below the antenna is very small, does anyone have any experience
> of a similar setup?
>
> If so what kind of distances would you suggest between the antennae?
>
> Obviously my main concern is TVI and poorer performance from the Diamond due
> to its close proximity to the TV aerial.
>
> I'm using RG-213 for the Diamond and normal coax for the TV.
>
> Any help or suggestions would be appreciated.
>
> Cheers,
>
> Paul
>
>

3274. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 01:41:42 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <qrb0c.3816$PR3.51786@attbi_s03>
Source record: 99246

Tom I am aware of accusations that I am not using recognised terms. This
time I double checked before posting.
Barnes and Noble is a bookshop in town. A book on electricity
which is both modern and American provided the definitions which I copied
verbatum. The definition matched what I had been taught the other side of
the pond but I used the books words since I am now on this side of the pond.
Swr is a relatively new term and was introduced to sell meters. When
speaking of Q it is quite in order to use the terms I used especially when
refering to bandpass.
I have never seen the term SWR refered to when speaking of
bandpass filters and the like and to be honest, reference to Q with respect
to dipoles I find to be unusual even tho it is legitamate
where the norm is to use it with lumped elements in parallel form rather
than with introducing distributed elements.
So in this case technical Americanisms match those from the other side of
the pond
Best regards
Art

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20040228180414.08983.00000500@mb-m13.aol.com...
> Dave wrote,
> >
> >Art, 'bandwidth' in technical/engineering terms is generally accepted as
> >the -3 dB point[s].
> >
> >I suggest that all other interpretations are non technical
> >interpretations with loosely undefined terms.
> >
> >"What is the bandwidth?" MUST be understood as the -3 dB points.
> >"What are the 2:1 VSWR points?" is more valid than "What is the 2:1 VSWR
> >bandwidth?"
> >"What are the 3:1 VSWR points?" is more valid than "What is the 3:1 VSWR
> >bandwidth?"
> >
> >But, "What is the 5.88:1 VSWR Bandwidth" is a VALID question!!!!!!! BTW,
> >5.88:1 VSWR is the -3 dB point.
> >
> >DD
> >
>
> Art's interpretation is as good as anyone's. Read what Balanis writes
about
> "bandwidth." "Because the characteristics (input impedance, pattern,

gain,
> polarization, etc.) of an antenna do not necessarily vary in the same
manner
> or are even critically affected by the frequency, there is no unique
> characterization
> of the bandwidth. The specifications are set in each case to meet the
needs of
>
> the particular application." He then goes on to write how the word
"bandwidth"
>
> has been used in various contexts. There's no point in being overly formal
or
> didactic about what constitutes bandwidth. Just explain what is meant,
> beforehand, and everyone should be happy.
> 73,
> Tom Donaly, KA6RUH
>
>

3275. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 02:10:56 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40414d40_2@news1.prserv.net>
Source record: 99247

Dave:

I've forgotten the exact construction you described, but I suspect you are going to have to increase the friction between the two tubes by splitting and clamping the outer. It sounds like the aluminum is simply too thin and too soft to withstand that kind of torque against a small diameter fastener.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Dave Head" <rally2xs@att.net> wrote in message
news:gdc240lbn610nnvakosa145i2naajafkel@4ax.com...
> That was it. There is a 2" aluminum tube over a 1 1/4" stainless steel
> "jackshaft". It's held with two 1/4" bolts. Holes thru aluminum tube were
> elongated. Drilled to 3/8". Unfortunately, these aren't perfectly round,
> either, since I drilled 'em with a hand drill, but I'm hoping the torque I
put
> on the 3/8" bolts will crush the aluminum tube into clamping on the
stainless
> steel. We'll see. If not, I can drill more holes thru that assembly
and put
> more bolts in. It seemed more solid, but next big wind, I'll have a look.
>
> Thanks again for the tip.
>
> Dave Head
>
> On Sun, 22 Feb 2004 14:46:54 -0600, "Crazy George"
<muNnscOh@attSglPobaAl.nMet>
> wrote:
>
> >Dave:
> >
> >From that description, I suspect you are going to find all the bolt holes
in
> >the tubing elongated from torque. We usually drill slightly oversize
holes
> >for our fasteners, but in this high stress application, the holes should
> >start undersize so the fasteners have to be driven in and are tight from
the
> >get-go. Also, it is necessary to select fasteners which do not have
threads
> >where they pass through the walls of the tubes. This is often the most
> >difficult challenge.
>

3276. Re: Balun's... I'm confused...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 04:07:33 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40416763_2@news1.prserv.net>
Source record: 99248

Fred:

They're probably both OK. Some include a dc blocking capacitor on the 75
ohm end. Try the two back to back on a TV set for a RF check.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Fred" <fredg@SPAMMENOT.fastmail.fm> wrote in message
news:10422kvclttn4f7@corp.supernews.com...
> So which one is correct of these 2 scenarios, is one of the balun's bad?
>
> Thanks for the reply!!
>
> 1) When I do a continuity check on the new TV type balun I get a dead
short
> when connecting my meter across the two leads. I get nothing at the F
> connector... like it is not even connected to the leads.
>
> 2) When I do a check of my old balun (that is cracked and weathered) I get
a
> dead short from the center of the F connector to either of the leads.. I
get
> nothing at the outside of the F connector. I also get the dead short when
> testing across the leads.
>
>
> "'Doc" <w5lz@cwis.net> wrote in message news:4040FE09.CA3A03A9@cwis.net...
> >
> >
> > Fred,
> > That sounds about right, ought to work okay.
> > 'Doc
>
>

3277. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 04:29:41 UTC
From: richardharrison@webtv.net
Message-ID: <1569-40416AB5-150@storefull-3257.bay.webtv.net>
Source record: 99249

Reg, G4FGQ wrote:
"Precisely what I asked for. No more and no less."

Thank you Reg, but nothing succeeds like excess. No disinterested party need read this posting.

Ed Laport says on page 240 of "Radio Antenna Engineering:

"We can determine the standing-wave ratio Q for the antenna (1/2-wave dipole), the voltage to ground at the end of the dipole Vm will be QVa/2, where Va is the balanced voltage applied to the central feed point. Va=!aZa, the antenna current at the feed point times the feed-point impedance.

The Q of the half-wave dipole can be determined approximately from transmission-line theory by considering the open-ended line of characteristic impedance Zo having a length of 90-degrees. This is the same as studying relations of voltages and currents in the first one-half wavelength (180-degrees) of an infinite line with attenuation because when the line is open-circuited at 90-degrees, the reflected wave will be the same as that between 90 and 180 degrees on the infinite line. By combining the direct wave and the reflected wave from the open circuit, the potential and current distributions can be obtained, and the standing-wave ratio. It will be assumed now that the half-wave dipole has a length such that with its end effects, Za=Ra+j0. If the system losses are due entirely to radiation, Ra=Rr, the radiation resistance, which can be read from Fig. 3.18 as a function of height of the horizontal dipole from ground."

From the figure:
Rr equals about 80 ohms for 1/4-wave height, and about 70 ohms for 1/2-wave height, with a maximum approaching 100 ohms at about 0.35-wave height.

Laport continues:
"Applying this method, we first obtain a factor m which is the ratio of the attenuated voltage 180-degrees from the generator on the infinite line to the generator voltage. This is found to be

m=Zo-Rr/Zo+Rr

Q=1+m / 1-m

Reference to Fig. 3.20 will clarify the derivation of these equations. The dipole antenna, as a balanced transmission line, has a characteristic impedance

Zo=276logL/radius

where L is the total length of the dipole in the same units as used for its radius (from ref. 71, Chap.5)."

Ed then works an example:
m calculates as 0.84, and Q is 11.4
The wire radius was 0.102 inch.

Ed Laport`s method was similar to ON4UN`s, but the effect of Ed`s antenna height is derived from a radiation resistance chart that Ed prepared based upon antenna height.

It`s encouraging that Q calculated by several interested parties by several different methods seems to give very similar answers.

Best regards, Richard Harrison, KB5WZI

3278. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 04:46:23 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <mer24013h53hd5i8ca0o07pftur2mml170@4ax.com>
Source record: 99250
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Wed, 25 Feb 2004 17:29:28 GMT, Gary S. <Idontwantspam@net> wrote:

>On Wed, 25 Feb 2004 17:01:23 +0000 (UTC), mikea@mikea.ath.cx (Mike
>Andrews) wrote:
>
>>In <403cce50$1_8@corp.newsgroups.com> (rec.radio.amateur.boatanchors), Cecil Moore
wrote:
>>> vcxbbs@eastlink.ca wrote:
>>> > dbjjvlhdbrpobcmbngkgdtxpoevsvbqgrocymgcgfswjqeknbnzxqlezzbvbydrbkwvttesckwdnmwtcs
>>
>>> Just curious, does this string of letters have any meaning?
>>
>>I suspect it's just a pseudorandomly-generated "hashbuster" to help
>>the spam avoid filters that hash the message body and check against
>>known spam.
>
>Exactly. As spamfiltering has gotten better, the spammers have gotten
>more sophisticated.
>
>The key clue is the attachment. Besides EXE files, ANY files with the
>extensions COM, BAT, SCR, and PIF could also be damaging programs.
>Note that sometimes a file will have a name ending in more than one
>extension, but only the last one matters. More trickery.

This has been hitting the newsgroups in one form or another for some
time, usually carrying a virus or link to a malicious site.

I always wondered is any one ever fell for them.

>
>Do not open any attachments that you have the slightest suspicion of,
>no matter who appears to have sent them. A friend could have a virus
>on their machine, sending out copies to everyone in their address
>book.
>
>Get a good antivirus program, including Norton Antivirus or MacAfee,
>which gets frequent updates of virus definitions, and run it on EVERY
>file received, via email, Internet, or disk.

Even then, if it's an executable, the sender is some one you don't
know and if you do know them they don't verify they sent it on
purpose...Don't open it.

If your curiosity can't stand it... save the file, then run a scan on
it, but that still doesn't guarantee it won't take you to a malicious

site.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
>The time and money you should put into prevention are a tiny fraction
>of what could be involved in recovering from a virus on your machine.
>
>Happy trails,
>Gary (net.yogi.bear)
>---
>at the 51st percentile of ursine intelligence
>
>Gary D. Schwartz, Needham, MA, USA
>Please reply to: garyDOTschwartzATpoboxDOTcom

3279. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 07:53:17 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c1s5pe$3qrl$1@news3.infoave.net>
Source record: 99251

Kraus says it is determined by moving above and below Fo to a point that either the pattern or impedance is no longer satisfactory, then bandwidth is ((F high-F low)/Fo)*100 expressed as a percentage.

A modern ham transmitter would use the point where the power starts to foldback (usually 2:1 SWR).

My old DX-100 would have had a greater bandwidth on an identical antenna.

In other words define your needs, move up in frequency till they are no longer met, move down until the same condition exists and make your calculation.

There is no single correct answer.

On a helical antenna it could be defined as when the mode changed...

Like in Alice in Wonderland, Bandwidth is what I say it is, nothing more and nothing less.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:4040b827_1@corp.newsgroups.com...
> Tam/WB2TT wrote:
> > What constitutes bandwidth is a good question. Generally, for a series RLC
> > lumped parameter network, the bandwidth is between the points where the
> > phase angle is between +/- 45 degrees. For a dipole, the R changes as you
> > change frequency. So, is the bandwidth determined by the +/- 45 degree
> > frequencies, or where X= +/- j72? Or whichever is less?
>
> Antenna bandwidth apparently can be anything depending upon one's
> definition of "bandwidth". If the definition is not supplied,
> "bandwidth" is just a buzzword.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3280. Re: Balun's... I'm confused...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 08:00:05 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c1s666$3qob$1@news3.infoave.net>
Source record: 99252

pull out the handbook and look at how a 4:1 balun is wound and the
measurements fall in to place.

"Fred" <fredg@SPAMMENOT.fastmail.fm> wrote in message
news:1041v3lal4otcd@corp.supernews.com...
> Hi,
>
> I am cleaning up and putting back into service my old Channel Master
scanner
> antenna. This antenna is similar to the Scantena:
>
> http://users.cis.net/kingpop/Scanner/Scantenna.htm
>
> My question has to do with the Balun. I plan to use RG-6 cable with
> this Balun from Radio Shack (standard TV type 300 ohm to 75 ohm):
>
>
http://www.radioshack.com/product.asp?catalog%5Fname=CTLG&product%5Fid=15-1140
>
> Does anyone see a problem using this Balun? The original Balun that
> came with the Channel Master was a more heavy duty looking one..
>
> When I do a continuity check on the new TV type balun I get a dead short
> when connecting my meter across the two leads. I get nothing at the F
> connector... like it is not even connected to the leads.
>
> When I do a check of my old balun (that is cracked and weathered) I get a
> dead short from the center of the F connector to either of the leads.. I
get
> nothing at the outside of the F connector. I also get the dead short when
> testing across the leads.
>
> Thanks for any advice on this!!
>
> Fred
> KD6ZDJ
> fredg@SPMFLTER.fastmail.fm
> (remove SPMFLTER to reply)
>
>

3281. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 08:40:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g29340dt775ldn5i4tenadqb4ftfhejtce@4ax.com>
Source record: 99253

On Sun, 29 Feb 2004 02:53:17 -0500, "W4JLE" <w4jle(remove to
reply)@pbtcomm.net> wrote:

>Like in Alice in Wonderland, Bandwidth is what I say it is, nothing more and
>nothing less.
And, from Carroll's (not Shakespeare's) "The Hunting of the Snark"
"If I say it three times, it must be true."
Which seems to be the gold standard of logic in these threads.

73's
Richard Clark, KB7QHC

3282. Re: Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 10:39:31 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <fvf3409t87dk2s90ha3msnd6eout63s17t@4ax.com>
Source record: 99254

On 28 Feb 2004 21:42:38 GMT, bcolenso@aol.com..nospam (Bob Colenso)
wrote:

>Hi all:
>
>I've been thinking about making a vertically polarized Delta Loop for 40m.
>I've seen articles on the internet having the feed point at one of the lower
>corners of the triangle for vertical polorization, others having the feed point
>on one of the sides, 1/4 wl from the top. Does it make any difference if its
>sloping (within reason) or does it need to be perpendicular to the ground?
>
>Anyone here have any experience here?
>
>
>Thanks,
>
>Bob--KD8WU
>
>U of M
>GO BLUE!!
>
>GOD, GUNS, and GUTS
>PROTECT AMERICA

Good Morning Bob,

I've found here that sloping is ok within reason. The feed point
should be at the 1/4 wave down from the apex , I've tried both and it
seem to work better for me there. you might want to take a look a
Cebik's site at

http://www.cebik.com/scv2.html

I would not that if you are planning on using this loop on any band
other than 40m buy tuning it with a tuner. You would be better off
mounting it in the Horizontal plan..

73 Dave kc1di

3283. RE:2M/70cm on TV Mast..help please - now installed!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 10:54:29 UTC
From: Paul <nospam@pllllleaaseeee.com>
Message-ID: <c1sgd5kcb1@sparta.btinternet.com>
Source record: 99255
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

Hi All,

I promised some members in the group I would let them know how I got on with my installation. (UK based)

I have mounted a Diamond X50 just a few inches above a TV aerial on the same mast.

Following the advice from my tutor (intermediate course) and some responses from the group, I made a single turn in the RG213 coax just below the connection to the Diamond, and ran the cable the other side of the chimney to the TV coax.

I made another single turn after entering the shack (which is a straight drop below - 35ft).

When transmitting at 10W maximum power on 144 -146 MHz on managed to wipe out most of the TV signal!!

However, by fitting a TVI filter before my distribution amp, and remaking some poor quality connections on the TV coax generally, I have managed to eliminate it completely.

One other tip, I have removed the coax from the Sky+ RF loop thro', and fed out from the box and mixed the signal with the TV feed using a high quality coax mixer (maplins) before sending to the distribution amp thro the TVI filter. This was a major improvement, it seems the Sky+ box was amplifying the 2M frequencies well above anything else. I did try fitting the TV filter before the sky box, but it was better to keep the RF out of the Sky box altogether.

I will probably continue to improve things a little by reducing some cable runs on the TV side of things.

The X50 works great at this position, I was chatting away last night, with just a few watts, hitting repeaters 60 or 70 miles away with no problem. In simplex mode I was able to get contacts over a similar distance.

I would not recommend fitting 2M on the TV mast, but if you have no real choice, go for it, and be prepared to fiddle and you will make it work!!

Many thanks to all those that offered help and advice, it is what these groups are all about.

73's

Paul
M3 PDY

3284. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 12:58:41 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c1snjr$1md2j7$1@ID-150848.news.uni-berlin.de>
Source record: 99256

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:y76dnTRAG46un9zdRVn-hA@comcast.com...
> Richard,
>
> Why don't you go to the web site you referenced, and click on "Ask seller
a
> question", or doesn't he know? I did not read the whole thing. With the
> loading coils, it might be an 11 meter antenna.

The seller does not know.

Funny, but figuring out what frequency an antenna might be for, even with
the physical and electrical parameters spelled out must be more difficult
than I imagined. I'm really surprised that after giving these details lower
down in the thread, the antenna cannot be figured. I'm gobsmacked.

3285. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 13:19:54 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <9dp3405p6756nu679f9uu3bsoejl7pp9nh@4ax.com>
Source record: 99257

On Sun, 29 Feb 2004 12:58:41 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:

>
>"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
>news:y76dnTRAG46un9zdRVn-hA@comcast.com...
>> Richard,
>>
>> Why don't you go to the web site you referenced, and click on "Ask seller
>a
>> question", or doesn't he know? I did not read the whole thing. With the
>> loading coils, it might be an 11 meter antenna.
>
>The seller does not know.
>
>Funny, but figuring out what frequency an antenna might be for, even with
>the physical and electrical parameters spelled out must be more difficult
>than I imagined. I'm really surprised that after giving these details lower
>down in the thread, the antenna cannot be figured. I'm gobsmacked.

You are right in the case of a simple antenna.

Loading coils and similar make a determination without actually
examining it far more difficult. You may not have provided every bit
of data required for people to VOLUNTARILY provide you with an answer.

An antenna design book might help, as would some careful testing.

You don't need to determine exactly what it is, you just need a "go/no
go" test for your frequencies of interest. Low power Xmit and an SWR
meter would help.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

3286. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 14:30:30 UTC
From: Mitch Dickson <mitch@volstate.net>
Message-ID: <1043trkcgens25b@corp.supernews.com>
Source record: 99258
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

> >From ARRL Headquarters
> Newington CT January 20, 2004
> To all radio amateurs
>
> SB QST ARL ARLB003
> ARLB003 ARRL to Propose New Entry-Level License, Code-Free HF Access
>
> The ARRL will ask the FCC to create a new entry-level Amateur Radio
> license that would include HF phone privileges without requiring a
> Morse code test.

Isn't that "Special"!!!!!! I can hardly wait to be in the middle of a good QRP QSO and hear some CBer who thinks he is a ham blair in with "Is the channel in use?"

It is nice to know that the good friends at ARRL sold us out! Wonder what 30 pieces of silver will buy these days? Apparently if you are a corporation, it will buy you the priviledge to destroy ham radio! Heck, why require a license at all? That seems like such a bother. Why not just make up a call and get you a radio and jump in "Good Buddy"? I'll bet that for 50 bucks, the "board" at ARRL will back you!

Mitch
AE4YW
--
"Come by and sit a spell with me at www.volstate.net/~mitch/ "

mitch@volstate.net

3287. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 15:07:07 UTC
From: Stevens <stevens@stevens.net>
Message-ID: <2vv3409sooa616o54s4rfqk98d0f0dvm0u@4ax.com>
Source record: 99259

Have you tried to put the model number (I couldn't read it in the
picture) into Google to see what it returns?

3288. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 15:08:03 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <892dndvz2JPPnd_dRVn-sA@comcast.com>
Source record: 99260

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:c1snjr$1md2j7$1@ID-150848.news.uni-berlin.de...
>
> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
> news:y76dnTRAG46un9zdRVn-hA@comcast.com...
> > Richard,
> >
> > Why don't you go to the web site you referenced, and click on "Ask
seller
> a
> > question", or doesn't he know? I did not read the whole thing. With the
> > loading coils, it might be an 11 meter antenna.
>
>
> The seller does not know.
>
> Funny, but figuring out what frequency an antenna might be for, even with
> the physical and electrical parameters spelled out must be more difficult
> than I imagined. I'm really surprised that after giving these details
lower
> down in the thread, the antenna cannot be figured. I'm gobsmacked.
>
>
It can be figured out, but it is a lot of work. If you have the actual
antenna, I would measure the SWR at some frequencies, starting at 10 or 11
meters. Of course, if you have access to an MFJ Antenna analyzer, you are in
luck.

Tam/WB2TT

3289. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 15:13:24 UTC
From: Bill <Bill@birchnet.demon.co.uk>
Message-ID: <jS0CQufUGgQAFw+7@birchnet.demon.co.uk>
Source record: 99261
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

In message <mer24013h53hd5i8ca0o07pftur2mml170@4ax.com>, Roger Halstead
<Delete-Invallid.groups@tm.net> writes
>I always wondered is any one ever fell for them.
>

They do, a perfectly sane and reasonable colleague of mine was very
pleased that Microsoft had taken the time to email him at work about
their new security patch. He opened it.
--
Bill

3290. Re: which J-Pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 15:50:18 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <LOn0c.1280$XB.20@newsfe1-gui.server.ntli.net>
Source record: 99262

Also,
Anyone got any specs for these like 0 dBd gain, beamwidth etc.....

"Dustin" <fordman@btc-bci.com> wrote in message news:mGn0c.26$5U5.26080@news.uswest.net...
> Hello, I'm new to Ham, and I just took and passed my Technician test
> yesterday and am going back in April to take my General. I made a Yagi Beam
> antenna yesterday, but want to build a J-Pole Copper Cactus antenna for 2
> Meter. I have come across 2 different designs and wanted your opinions on
> which one to use. One has a tuner in the upper section of it such as a Ringo
> Ranger except it does a 3/4 circle, and the other one doesnt use a tuner.
> Which one do you recommend? and also, from what I understand I set the SWR
> on this by the placement of the Coax ends on the 1/4 and 3/4 wavelength
> rods? is this correct? Thanks for any help, I have included pics of the 2
> proposed antenna's.
>
>
>
>

>

3291. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 16:06:04 UTC
From: Roger <peakboston@hotmail.com>
Message-ID: <10443fe8gd3v80d@news20.forteinc.com>
Source record: 99264
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Bill wrote on 29/02/2004 15:13:

> In message <mer24013h53hd5i8ca0o07pftur2mml170@4ax.com>, Roger Halstead
> <Delete-Invallid.groups@tm.net> writes
>
>> I always wondered is any one ever fell for them.
>
> They do, a perfectly sane and reasonable colleague of mine was very
> pleased that Microsoft had taken the time to email him at work about
> their new security patch. He opened it.

That is arguably neither sane nor reasonable.

--
Roger Barker, G4IDE - roger@peaksysNOSPAM.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

3292. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 16:06:50 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <4e3440pj4v31ps68sdire2r5e38i73gek4@4ax.com>
Source record: 99263
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Sun, 29 Feb 2004 15:13:24 +0000, Bill <Bill@birchnet.demon.co.uk>
wrote:

>In message <mer24013h53hd5i8ca0o07pftur2mml170@4ax.com>, Roger Halstead
><Delete-Invallid.groups@tm.net> writes
>>I always wondered is any one ever fell for them.
>>
>They do, a perfectly sane and reasonable colleague of mine was very
>pleased that Microsoft had taken the time to email him at work about
>their new security patch. He opened it.

The term for this is "social engineering", a fancy name for conning
someone.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

3293. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 16:08:56 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40420eae_2@corp.newsgroups.com>
Source record: 99265
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

Bill Turner wrote:
> "Mitch Dickson" <mitch@volstate.net> wrote:
>>Isn't that "Special"!!!!!! I can hardly wait to be in the middle of a good
>>QRP QSO and hear some CBer who thinks he is a ham blair in with "Is the
>>channel in use?"
>
> The word is "blare". Ignorance can be found with or without a ham
> license.

Don't you just hate being in the middle of a CW QRP QSO
with a ham who can't spell? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3294. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 16:16:10 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c1t360$1m8pku$1@ID-150848.news.uni-berlin.de>
Source record: 99266

"Stevens" <stevens@stevens.net> wrote in message
news:2vv3409sooa616o54s4rfqk98d0f0dvm0u@4ax.com...
> Have you tried to put the model number (I couldn't read it in the
> picture) into Google to see what it returns?

Yea, done that and nuthin'.

I wonder what the quarter wave frequency would be for a length of wire 30"
long with a base coil of approximately 0.330uH. Same wonder with a 0.660 uH
coil.

3295. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 16:41:40 UTC
From: - - ex - - <exray@coqui.gov>
Message-ID: <10445fc9majqoc6@corp.supernews.com>
Source record: 99267
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Roger wrote:
> Bill wrote on 29/02/2004 15:13:
>
>
>>In message <mer24013h53hd5i8ca0o07pftur2mml170@4ax.com>, Roger Halstead
>><Delete-Invallid.groups@tm.net> writes
>>
>>
>>>I always wondered is any one ever fell for them.
>>
>>They do, a perfectly sane and reasonable colleague of mine was very
>>pleased that Microsoft had taken the time to email him at work about
>>their new security patch. He opened it.
>
>
> That is arguably neither sane nor reasonable.
>

I know a lady who fell for that one TWICE and then got insulted when
someone questioned her intelligence by having to explain all for a
second time less than a month later.

-Bill M

3296. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 17:28:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1t7gm$82a$1@hercules.btinternet.com>
Source record: 99268

I was not aware of the existence of other formulae for the Q of a halfwave dipole. I have no reference books. I derive my own formula.

ON4UN's formula (which he probably got from somebody else) is interesting because of its correction for height above ground which is in the right ballpark even down to heights almost in contact with the ground. But even at low heights the correction is insignificant and not worth the trouble of applying merely for calculating Q.

Although ON4UN's correction is applied to the transmission line's Zo, the correction is actually based on the slight reduction in inductance of a wire when it runs above and close to an infinite ground plane. This is quite proper but there's no need to involve Zo in the calculation of Q. It's an unnecessary diversion.

As in all my programs an antenna wire is a transmission line with L,C and R calculable from dimensions and coupling with its environment. When using any line as a tuned circuit, even well away from resonance, its behaviour impedance-wise is indistinguishable from a simple resonant L and C circuit, for either open or closed circuit at the other end.

The Q of a simple tuned circuit is Reactance/Resistance. With an antenna, where the coil is just a straight length of wire, we must use distributed reactance and resistance. Then they are both of the same sort.

Where other workers (if you can call them that) have gone wrong is in knowing what to do with radiation resistance. To convert the lumped value of 70 ohms of radiation resistance to its equivalent distributed value simply multiply by two.

This is nearly intuitively obvious because of the sinewave current distribution along the antenna wire. The lumped value of resistance at the centre and the distributed value both dissipate the the same power for a given current in the antenna. For a mathematical proof integrate watts versus length for a sinewave current distribution.

A more concise explicit formula for dipole Q is given by -

Q = 1.35 * [Ln(Lambda / Diameter) - 1]

where Lambda is wavelength at the resonant frequency.

The same value applies to a 1/4-wave vertical antenna.

If necessary, corrections can be applied for end-effect, for the change in radiation resistance, and height above a perfect ground. But the whole of the above is mainly of academic interest. What do you do with the value of Q when you think you know it? Of what use is it? As I've said before,

antenna Q is swamped by the large amounts of L and C, reactances without much R, in a long transmission line and tuner. Q at the transmitter end is certainly different from that at the antenna itself.

Reg, G4FGQ

3297. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 17:33:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <028440t0bad7dgq236m7rruodjfn23hkhp@4ax.com>
Source record: 99119

On Sun, 29 Feb 2004 12:58:41 -0000, "Richard"
<nearlynews_email@ntlworld.com> wrote:
>I'm really surprised that after giving these details lower
>down in the thread, the antenna cannot be figured. I'm gobsmacked.

Hi Richard,

You would be even more so if you had sat through a cycle of correspondence of trying to make sense of the Patent for that same antenna. We get a lot of that too, and at that point, some may respond briefly because Patents don't have to make sense. Would you care to delve into the mysteries of a Faster than Light antenna? Just needs magnets in the right place (or was that for better gas mileage?). Some details just don't add up to better understanding.

We even get Patent holders who come here to proclaim their latest invention, and then ask us how it works - or worse, proclaim it does work and it is our bound obligation and duty to prove it.

73's
Richard Clark, KB7QHC

3298. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 17:48:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1t8kkars1@hercules.btinternet.com>
Source record: 99120

```
> I wonder what the quarter wave frequency would be for a length of wire 30"
> long with a base coil of approximately 0.330uH. Same wonder with a 0.660
uH
> coil.
====================================

Rich, wonder no longer.

Download program BOTLOAD2.

For a 30" rod -

With base loading coil 0.33 uH, Fres = 69.1 MHz.

With a base loading coil 0.66 uH, Fres = 55.7 MHz.

----
Reg, G4FGQ
.........................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.........................................................
```

3299. Re: which J-Pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 18:16:16 UTC
From: dplatt@radagast.org
Message-ID: <1044b3gs6sjedc0@corp.supernews.com>
Source record: 99121

>> Hello, I'm new to Ham, and I just took and passed my Technician test
>> yesterday and am going back in April to take my General.

Congratulations on passing the Tech test, and best wishes on your
studies for the General!

>> I made a Yagi Beam
>> antenna yesterday, but want to build a J-Pole Copper Cactus antenna for 2
>> Meter. I have come across 2 different designs and wanted your opinions on
>> which one to use. One has a tuner in the upper section of it such as a Ringo
>> Ranger except it does a 3/4 circle, and the other one doesnt use a tuner.
>> Which one do you recommend? and also, from what I understand I set the SWR
>> on this by the placement of the Coax ends on the 1/4 and 3/4 wavelength
>> rods? is this correct? Thanks for any help, I have included pics of the 2
>> proposed antenna's.

>Also,
>Anyone got any specs for these like 0 dBd gain, beamwidth etc.....

Well, let's see... a bunch of questions here.

The term "Copper Cactus" is usually used to refer to a specialized
sub-class of copper J-pole antennas. The Cactus is a J-pole with two
or more quarter-wave matching stube - smaller ones near the top for
higher frequencies, larger ones near the bottom for lower frequencies.

A copper J-pole with only one matching stub isn't really a Copper
Cactus, I think - it's just a J-pole. These are quite popular for
2-meter operation. A 2-meter J-pole _will_ load up and transmit on
440 as well, but it's not very efficient - a lot of the power takes
off at a high radiation angle, and isn't aimed effectively at the
horizon.

I've seen two feedline arrangements for a true two-arm Cactus. One
uses individual feedlines from the transceiver (or from a diplexor),
often fed up through the copper pipe itself - this is the variety I
use. Another uses a single feedline to the antenna, and some sort of
phasing harness consisting of quarter- and half-wave sections of coax
inside the pipe to make connections to the matching stubs - I've never
been able to make sense of the design rules for this sort, and neither
has anyone I've spoke with.

I've never seen a copper J-pole with a Ringo-type "tuner". The
Ringo's circular loop at the bottom is an impedance-matching device,
which serves a purpose very similar to the quarter-wave matching
section at the bottom of a standard copper J-pole.

I _have_ seen collinear "Super J" antennas, which have a quarter-wave matching stub at the bottom, a half-wave radiator (as usual), a half-wavelength phasing-section stub in the middle (sometimes it sticks out at right angles, sometimes it's wrapped into a 3/4 circle), and another half-wave radiating section at the top. The 3/4-circle phasing stub isn't an impedance matcher (as in the Ringo) or a "tuner". Rather, it allows the two half-wave radiators to radiate in phase with one another rather than out of phase, and gives the antenna more directional gain. The disadvantages are that the antenna is twice as high, and significantly more complex to make.

A standard J-pole has a radiation pattern which closely approximates that of a 1/2-wavelength dipole - there's some disruption in the classic dipole pattern due to radiation from the matching stub. You can probably consider it to be a 0 dBd antenna and not be wrong enough to matter, in most applications.

A J-pole can be tuned for best SWR at a specific frequency by fiddling with some combination of four variables - the attachment points of the two coax conductors onto the two sides of the matching stub, the total length of the matching stub, and the total length of the radiator. If you build a copper-pipe J-pole from plans on the Net (or in the ARRL handbook), and use the exact lengths and spacings and diameters of the pipes that the authors suggest, then you can eliminate two of these variables (the lengths of the stubs and radiators) and just fiddle with the attachment points. It's quite possible to get the SWR down to within a gnat's whisker of 1:1 at some point within the 2-meter band, and if you're using 1/2" or 3/4" pipe you'll find that the antenna is so nicely broadbanded that it'll have a very acceptable SWR through the whole band. If you're just starting out with antenna-building, I'd encourage you to use one of these "cookbook" designs.

If you decide to experiment with different pipe diameters or spacings, then I'd suggest putting copper end-caps over the ends of the radiator and matching arm, and _not_ soldering them into place initially. You can slide the caps up and down a fraction of an inch at a time to vary the lengths of the pipes, and then solder them when you've gotten the best match. Another approach is to drill holes in the copper caps, braze or solder some brass nuts on top, and run a brass machine screw down through the nut - the screw becomes an extension of the pipe, and you can tweak the electrical length of the pipe by adjusting the screw. If you do this you'll want to cut the pipes an inch or so shorter than the final desired length, and use the screw length to make up the rest and leave room for adjustment.

A couple of hints:

- Make sure that the J-pole is well clear of any obstructions or interference when you tune it up. J-poles are easily "de-tuned" by nearby metal or other conductive objects.

- If you decide to solder the coax directly to the pipe (or to copper brackets or flanges), make sure you don't overheat the conductors

enough to melt the center insulation (this would short out the
antenna), and make sure you coat all exposed portions of the
conductor, braid, and insulation with a waterproofing material
afterwards (outdoor-rated metal-compatible black silicone sealant
is a good choice) to keep rainwater from getting into the coax.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3300. WTD: 222 TRANSVERTER

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 18:47:08 UTC
From: Charlie <okiemansc@yahoo.com>
Message-ID: <Gsq0c.7067$Bz3.3544@okepread05>
Source record: 99122
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

Before I go buy one from DEM just thought I would see if anyone has one they no longer need or is excess to their needs.Homebrew,projects considered.Please state condition and price.
THANKS,
...Charlie...

3301. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 18:56:59 UTC
From: tdonaly@aol.com
Message-ID: <20040229135659.20595.00000541@mb-m28.aol.com>
Source record: 99123

Reg wrote, among other things,
>
>As in all my programs an antenna wire is a transmission line with L,C and R
>calculable from dimensions and coupling with its environment. When using any
>line as a tuned circuit, even well away from resonance, its behaviour
>impedance-wise is indistinguishable from a simple resonant L and C circuit,
>for either open or closed circuit at the other end.
>

This is, of course, wrong. Transmission lines and antennas have resonances that

are infinitely periodic with frequency; L, C circuits don't. Even you, Reg,
know that the
formula for the impedance of a terminated transmission line, with its
hyperbolic tangent function
is very much different than the polynomials used to characterize L, C, R
circuits.
Everyone wants to simplify. That would be o.k. if the simplifiers didn't
confuse gross over-simplification
with natural law. As I wrote, before, I hope no one takes Reg's theorizing too
seriously.
73,
Tom Donaly, KA6RUH

3302. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 19:10:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40423920$1_6@corp.newsgroups.com>
Source record: 99124

Tdonaly wrote:
> Reg wrote, among other things,
>>As in all my programs an antenna wire is a transmission line with L,C and R
>>calculable from dimensions and coupling with its environment. When using any
>>line as a tuned circuit, even well away from resonance, its behaviour
>>impedance-wise is indistinguishable from a simple resonant L and C circuit,
>>for either open or closed circuit at the other end.
>>
> This is, of course, wrong. Transmission lines and antennas have resonances that
> are infinitely periodic with frequency; L, C circuits don't. Even you, Reg,
> know that the
> formula for the impedance of a terminated transmission line, with its
> hyperbolic tangent function
> is very much different than the polynomials used to characterize L, C, R
> circuits.
> Everyone wants to simplify. That would be o.k. if the simplifiers didn't
> confuse gross over-simplification
> with natural law. As I wrote, before, I hope no one takes Reg's theorizing too
> seriously.

If by, "well away from resonance", Reg means one percent away from
resonance, would you still disagree with him?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3303. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 19:29:19 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <c1tega$1mdsso$1@ID-150848.news.uni-berlin.de>
Source record: 99125

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c1t8kkars1@hercules.btinternet.com...
> > I wonder what the quarter wave frequency would be for a length of wire
30"
> > long with a base coil of approximately 0.330uH. Same wonder with a
0.660
> uH
> > coil.
> ==========
>
> Rich, wonder no longer.
>
> Download program BOTLOAD2.
>
> For a 30" rod -
>
> With base loading coil 0.33 uH, Fres = 69.1 MHz.
>
> With a base loading coil 0.66 uH, Fres = 55.7 MHz.

The antenna has three radials, and each has a loading coil right at the
begining.

Now I would have thought that at the feedpoint, the impedance would be low,
so I think then one would assume the radials are suppossed to acting as 1/4
wavelength radials. If that were true, then the freqency at which the
radials are quarter wavelength would be the operating frequency of the
antenna.

I've remeasured the coils after removing the rubber insulation to get a
better look.

For Radial #1

Length: 6mm
O.D.: 11mm
Turns: 9
Pitch: closewound

For Radial #2

Length: 6mm
O.D.: 11mm
Turns: 9
Pitch: closewound

For Radial #3

Lenngth: 13mm
O.D.: 11mm
Turns: 20
Pitch: closewound

I wonder if the coils should all be different, but by mistake the radials 1 & 2 are identical. I just don't know.

The new length of the radial is 72mm orabout 28.5". They are 2mm diameter stainless steel rods.

I tried to use Botload2, but not sure what I'm doing. Can you please do the two calculations again Reg? Ta.

3304. Re: which J-Pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 19:49:11 UTC
From: Ron McConnell <rcmcc@earthlink.net>
Message-ID: <Xmr0c.26830$W74.16802@newsread1.news.atl.earthlink.net>
Source record: 99126

Dustin wrote:

> Hello, I'm new to Ham, and I just took and passed my Technician test
> yesterday and am going back in April to take my General.
Good show!

> ...want to build a J-Pole ...

For starters, check the info and links on the theory
and practice of J-Pole, Zepp and end-fed antennas at
Steve Yates, AA5TB's web site

http://www.qsl.net/aa5tb

Cheers, 73,

Ron McConnell

w2iol@arrl.net

WGS-84: N 40ï¿½ 46' 57.9" W 74ï¿½ 41' 21.9"
Magnetic Variation/Declination = 13ï¿½ in early 2004
FN20ps77GV75 per w2iol
or FN20ps77GU46 per K2RIW

http://home.earthlink.net/~rcmcc

3305. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 20:43:57 UTC
From: richardharrison@webtv.net
Message-ID: <16238-40424F0D-237@storefull-3255.bay.webtv.net>
Source record: 99127

Reg, G4FGQ wrote:
"Of what use is it?" (Q)

For the radio amateur, antenna Q is probably not very useful information.

Ed Laport`s reason for calculating antenna Q was to find the voltage to ground at the ends of the dipole. At the powers used for international broadcasting there`s a possible power loss to corona, especially at high altitudes.

The balanced antenna driving voltage is Va. In Laport`s example, Va = Ia x Ra
With Laport`s numbers:
Va=7.25 x 95= 690 volts rms, unmodulated.

The voltage from one end of the dipole to ground is then Vend.

Vend = QVa/2= 11.4 x 690 /2 = 3950 volts.
For 100% modulation, the voltage doubles to 7.9 KV and the peak is 1.414 x 7.9 KV=11.17 KV.

The average unmodulated power input to the antenna is about 5 KW.

The amateur is likely using less than 5KW, is not operating high in the Andes mountains, and could use a Quad as Clarence C. Moore, W9LZX installed at HCJB to beat corona in 1942.

At low RF frequencies, high antenna Q occasionally limited keying speeds unless fat conductors were used. These antennas were always short in terms of wavelength requiring high inductance to neutralize the capacitive reactance of the short antenna.

The value of Q for a dipole of 10 or 20 multiplied by the voltage applied to an amateur dipole element is not likely to be spectular at the open-circuit end of a straight wire element.

Also, the ability of a dipole Q of 10 or 20 as a bandwidth restrictor (bandwidth is the inverse of Q) is not impressive as compared with a Q of 100 or 200 for a lumped LC tuned circuit. So, Reg asks an appropriate question: "Of what use is it?"

Best regards, Richard Harrison, KB5WZI

3306. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 21:25:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1tld1$j5t$1@sparta.btinternet.com>
Source record: 99128

I see, you wish to know the two resonant frequencies of the radials.

Measure the dimensions of the radial loading coils and calculate their inductance. Make no attempt to measure inductance.

First you will have to enter a crude frequency into program BOTLOAD2.

Then insert the overall length of a radial into the program. You MUST include the length of the loading coil in the length.

Also insert the diameter of the radial in the program.

Use keys 1 and 2 to VARY frequency up and down until the program indicates the value of loading coil is equal to its actual value. ie., the value you have calculated from its dimensions.

The frequency at which the indicated coil inductance is equal to the value you have calculated is the resonant frequency of the radial.

You don't really need the coil-design part of the program. Initially just enter some crudely correct values for the dimensions. But you can use it to check your calculation of coil inductance.

You will be using the program in a somewhat different manner to its primary purpose. You are using it to measure frequency whereas frequency is really a program input parameter.

The only output parameter you are interested in is coil inductance.

Let me know how you get on.

Reg, G4FGQ

==========

"Richard" <nearlynews_email@ntlworld.com> wrote in message news:c1tega$1mdsso$1@ID-150848.news.uni-berlin.de...
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:c1t8kkars1@hercules.btinternet.com...
> > > I wonder what the quarter wave frequency would be for a length of wire
> 30"
> > > long with a base coil of approximately 0.330uH. Same wonder with a
> 0.660
> > uH
> > > coil.
> > ==========
> >

> > Rich, wonder no longer.
> >
> > Download program BOTLOAD2.
> >
> > For a 30" rod -
> >
> > With base loading coil 0.33 uH, Fres = 69.1 MHz.
> >
> > With a base loading coil 0.66 uH, Fres = 55.7 MHz.
>
> The antenna has three radials, and each has a loading coil right at the
> begining.
>
> Now I would have thought that at the feedpoint, the impedance would be
low,
> so I think then one would assume the radials are suppossed to acting as
1/4
> wavelength radials. If that were true, then the freqency at which the
> radials are quarter wavelength would be the operating frequency of the
> antenna.
>
> I've remeasured the coils after removing the rubber insulation to get a
> better look.
>
> For Radial #1
>
> Length: 6mm
> O.D.: 11mm
> Turns: 9
> Pitch: closewound
>
>
> For Radial #2
>
> Length: 6mm
> O.D.: 11mm
> Turns: 9
> Pitch: closewound
>
>
> For Radial #3
>
> Lenngth: 13mm
> O.D.: 11mm
> Turns: 20
> Pitch: closewound
>
> I wonder if the coils should all be different, but by mistake the radials
1
> & 2 are identical. I just don't know.

>
> The new length of the radial is 72mm orabout 28.5". They are 2mm diameter
> stainless steel rods.
>
> I tried to use Botload2, but not sure what I'm doing. Can you please do
the
> two calculations again Reg? Ta.
>
>

3307. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 22:04:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1tnll$o0l$1@sparta.btinternet.com>
Source record: 99129

> If by, "well away from resonance", Reg means one percent away from
> resonance, would you still disagree with him?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
==========

Or even as far away from the fundamental frequency as the 3dB or the 3:1 swr points - which is all we are concerned with in the present context.

Tdonaly, go jump in a lake. Display your ignorance to the fish.

3308. Re: which J-Pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 22:09:13 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <dqt0c.38380$%d3.3560849@twister.southeast.rr.com>
Source record: 99130

"Dustin" <fordman@btc-bci.com> wrote in message
news:mGn0c.26$5U5.26080@news.uswest.net...
> Hello, I'm new to Ham, and I just took and passed my Technician test
> yesterday and am going back in April to take my General. I made a Yagi
Beam
> antenna yesterday, but want to build a J-Pole Copper Cactus antenna for 2
> Meter. I have come across 2 different designs and wanted your opinions on
> which one to use. One has a tuner in the upper section of it such as a
Ringo
> Ranger except it does a 3/4 circle, and the other one doesnt use a tuner.
> Which one do you recommend? and also, from what I understand I set the SWR
> on this by the placement of the Coax ends on the 1/4 and 3/4 wavelength
> rods? is this correct? Thanks for any help, I have included pics of the 2
> proposed antenna's.
>
>
>
>

Ive tried both versions of the antena and found that the collinear antenna
did not offer enough improvement over the 1/2 wl version to warrant the
extra cost/effort of constuction. The 1/2wl unit worked as well as any
vertical I have owned except for maybe a 4 element collinear. I could
sometimes hear weak simplex signals on the 4 element antenna that I could
not hear on the 1/2wl antenna. This was not the usual case, Usualy I could
tell no difference between them.

3309. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 22:23:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cqo4405nnc1of1ncn205n8h7ijo1ibsukp@4ax.com>
Source record: 99131

On Sun, 29 Feb 2004 22:04:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
> which is all we are concerned with in the present context.

There has never been any such context, except in the sense of Zen
Archery.

>Tdonaly, go jump in a lake. Display your ignorance to the fish.

His guess was as "ignorant" as yours, does that make you Maybe Dick?

3310. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 22:59:12 UTC
From: tdonaly@aol.com
Message-ID: <20040229175912.06694.00000506@mb-m05.aol.com>
Source record: 99132

Reg wrote,
>
>> If by, "well away from resonance", Reg means one percent away from
>> resonance, would you still disagree with him?
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>>
>==========
>
>Or even as far away from the fundamental frequency as the 3dB or the 3:1 swr
>points - which is all we are concerned with in the present context.
>
>Tdonaly, go jump in a lake. Display your ignorance to the fish.
>

It looks as if I hit a nerve. Good. Maybe you'll think twice about simplifying
to the point of imbecility in the future.
73,
Tom Donaly, KA6RUH

3311. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 23:31:36 UTC
From: tdonaly@aol.com
Message-ID: <20040229183136.06694.00000507@mb-m05.aol.com>
Source record: 99133

>
>Tdonaly wrote:
>> Reg wrote, among other things,
>>>As in all my programs an antenna wire is a transmission line with L,C and R
>>>calculable from dimensions and coupling with its environment. When using
Cecil wrote,
>any
>>>line as a tuned circuit, even well away from resonance, its behaviour
>>>impedance-wise is indistinguishable from a simple resonant L and C circuit,
>>>for either open or closed circuit at the other end.
>>>
>> This is, of course, wrong. Transmission lines and antennas have resonances
>that
>> are infinitely periodic with frequency; L, C circuits don't. Even you, Reg,
>> know that the
>> formula for the impedance of a terminated transmission line, with its
>> hyperbolic tangent function
>> is very much different than the polynomials used to characterize L, C, R
>> circuits.
>> Everyone wants to simplify. That would be o.k. if the simplifiers didn't
>> confuse gross over-simplification
>> with natural law. As I wrote, before, I hope no one takes Reg's theorizing
>too
>> seriously.
>
>If by, "well away from resonance", Reg means one percent away from
>resonance, would you still disagree with him?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Sophistry will get you nowhere, Cecil. Reg is simply wrong and his statement
misleading. If Reg really wants to analyze an antenna as a transmission line
he
can read S. A. Schelkunoff and H. T. Friis, _Antennas: Theory and Practice_,
published
by Wiley, New York, 1952. Reg is re-inventing the wheel, and not doing such a
fine
job of it, either. I presume the UK has a lending library system that will
loan him
the book for a couple of weeks. If not, he can always buy it for three or four
hundred
dollars on the internet, as I presume Chip just did.
73,

Tom Donaly, KA6RUH
(P.S. to interested souls. Send Roy the money for a copy of EZNEC. It will tell

you more than Reg or Schelkunoff combined, and it has the dual advantage
of being more accurate than Reg, and cheaper than Schelkunoff.)

3312. Nye Viking MBVA and Millen tuners for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2004-02-29 23:59:25 UTC
From: k9sqg@aol.com
Message-ID: <20040229185925.09510.00000700@mb-m12.aol.com>
Source record: 99134

Digital pictures now available...

3313. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 01:15:13 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <B8w0c.3246$jG3.1503@newssvr22.news.prodigy.com>
Source record: 99136

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:cqo4405nnc1of1ncn205n8h7ijo1ibsukp@4ax.com...
> On Sun, 29 Feb 2004 22:04:38 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
> > which is all we are concerned with in the present context.
>
> There has never been any such context, except in the sense of Zen
> Archery.
>
> >Tdonaly, go jump in a lake. Display your ignorance to the fish.
>
> His guess was as "ignorant" as yours, does that make you Maybe Dick?

Ah, one of my favorite Bullwinkle episodes!

--
Steve
KI5YG
.

3314. 160 Slopper on Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 01:15:51 UTC
From: wm2f@pics.com
Message-ID: <74e1d9f2.0402291715.1b73a2be@posting.google.com>
Source record: 99135

Hi All
I put up a slopper at 65 feet on my tower. Its feed at the top and the wire is 130 feet long off the tower and about 10 feet off the ground at the end(TA 33 tribander on top). The coax is grounded at the top to the tower.
Im running an IC 756 pro II with a tuner inside. The tuner is to narrow so Im using a MFJ versa II.
Now my problem.
I can tune the antenna with the MFJ tuner but I have no radials installed. It seems that every thing I do on the ground side de-tunes the wire off the tower. I ran some radials at 130 feet at the base of the tower and the tuning goes out of range. It seems that everything I do changes the tuning. Even station grounds change the situation.
Any help or conversation is welcome.
TNX,
Mike

3315. Re: Nye Viking MBVA and Millen tuners for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 01:18:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1u31k$3e1$1@hercules.btinternet.com>
Source record: 99137

> Digital pictures now available...

Don't bother saying where. Lost interest already.

3316. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 01:36:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404293d7_5@corp.newsgroups.com>
Source record: 99138

Tdonaly wrote:

> Cecil wrote,
>>If by, "well away from resonance", Reg means one percent away from
>>resonance, would you still disagree with him?

> Sophistry will get you nowhere, Cecil. Reg is simply wrong and his statement
> misleading.

A diagnosis of sophistry from a question? If I say: "Sometimes the difference between a sine function and a tangent function is negligible", would you say I am simply wrong or try to understand the context?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3317. Re: Can you figure out this antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 01:51:40 UTC
From: richardharrison@webtv.net
Message-ID: <20457-4042972C-110@storefull-3254.bay.webtv.net>
Source record: 99140

Richard Clark wrote:
"---patents don`t have to make sense."

A search to show the patent application is for something not already patented is, I think, a part of the process.

This patent search may favor the impractical to the extent that sane knowing people choose not to pursue the impractical, so no prior patent may be found.

The patent office may issue a patent for a Yagi / Uda antenna in which the director is longer than the driven element and the reflector is shorter than the driven element.

Many patents either don`t work as claimed or have such limited utility that they aren`t imitated.

Best regards, Richard Harrison, KB5WZI

3318. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 01:56:12 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0402291756.7f83814b@posting.google.com>
Source record: 99139

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:<c1t7gm$82a$1@hercules.btinternet.com>...
snip hat do you do with the value of
> Q when you think you know it? Of what use is it? As I've said before,
> antenna Q is swamped by the large amounts of L and C, reactances without
> much R, in a long transmission line and tuner. Q at the transmitter end is
> certainly different from that at the antenna itself.
> ----
> Reg, G4FGQ

Reg You have had a few replies on the above but for the life of me I
do not know why they have been posted other than to oppose you.
I for one will be direct.
In my mind I see a graph of frequency versus current and the higher
the Q the higher the current. I don't want to throw Q on a dirt heap
as being no use in this world as you intimate. For me current and
radiation go hand in hand so I want a bunch of both in my antennas,
yet for some reason you look at it as just a buzz word and absolutely
of no interest to those interested in antennas
.........But..............you may be playing games since it as you
who posed the Q question in the first place and those that are
replying to you are playing games with words and inuendoes to tweak
each others ears in return.

You introduced the subject of Q and now you condemn its use.
Why?

Then you add a kicker re Q at the transmitter end is certainly
different from that at the antenna itself. I say to myself well it
does not have to be but then you are bringing up the subject of Q
again. .....Reg is playing games ? !

What gives ? Be honest without flames
Cheers
Art

3319. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 02:05:43 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <XTw0c.11703$PR3.294795@attbi_s03>
Source record: 99141

Tom
I believe Cecil has decided to go after you personaly,
be careful of the bait being offered.
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:404293d7_5@corp.newsgroups.com...
> Tdonaly wrote:
>
> > Cecil wrote,
> >>If by, "well away from resonance", Reg means one percent away from
> >>resonance, would you still disagree with him?
>
> > Sophistry will get you nowhere, Cecil. Reg is simply wrong and his
statement
> > misleading.
>
> A diagnosis of sophistry from a question? If I say: "Sometimes the
difference
> between a sine function and a tangent function is negligible", would you
say
> I am simply wrong or try to understand the context?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3320. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 02:08:57 UTC
From: tdonaly@aol.com
Message-ID: <20040229210857.08854.00000588@mb-m13.aol.com>
Source record: 99142

Cecil wrote,
>
>Tdonaly wrote:
>
>> Cecil wrote,
>>>If by, "well away from resonance", Reg means one percent away from
>>>resonance, would you still disagree with him?
>
>> Sophistry will get you nowhere, Cecil. Reg is simply wrong and his
>statement
>> misleading.
>
>A diagnosis of sophistry from a question? If I say: "Sometimes the difference
>between a sine function and a tangent function is negligible", would you say
>I am simply wrong or try to understand the context?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

You might want to go practice the socratic method on someone else,
Cecil, I'm already familiar with it. I also don't have the inclination to
go another 500 posts or to chew muh cabbage twice for that matter.
Yep, coming from you, any question is a sophistry, since your object is
always to gain rhetorical advantage and never to obtain information.
73,
Tom Donaly, KA6RUH

3321. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 02:22:32 UTC
From: tdonaly@aol.com
Message-ID: <20040229212232.08854.00000589@mb-m13.aol.com>
Source record: 99143

Art wrote,
>
>Tom
>I believe Cecil has decided to go after you personaly,
>be careful of the bait being offered.
>Art
>

Never fear, Art, I'm thoroughly familiar with Cecil's methods. In
fact, one of these days I'm going to catalogue them all so I can
refer to them by number. :-)
73,
Tom Donaly, KA6RUH

3322. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 02:38:06 UTC
From: w4udx@bellsouth.net
Message-ID: <Ckx0c.68404$Ve2.524@bignews6.bellsouth.net>
Source record: 99144

> put up the longest dipole you can as high as you can and load it with a
> tuner... that is the easiest and fastest way. if you have an 80m dipole
> that will work ok to try it out.

Unless you have a legal-limit tuner, or are going to use QRP power levels, I would advise against that.
If the dipole is coax fed and is 80M 1/2 wavelength, at 100 watts out there is going to be some crazy-high RF voltages inside that tuner. If it's an MFJ 300 watt tuner, more than likely it's going to arc like a welder.
Feeding the dipole with ladder-line is a different story......

I am in a city lot and use an Alpha Delta DX-A sloper.... but again it helps to have a tower with a tribander to act as a capacity hat....

Mark W4UDX

3323. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 03:32:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c1uasrqgp1@sparta.btinternet.com>
Source record: 99145

Dear Art and others,

If in all the mass of technical stuff, all you can disagree with is that I de-emphasised the importance of Q, then I'm highly delighted you've learned something. ;o)

It was only a little add-on, non-technical extra.

Reg, G4FGQ

3324. Re: 160 Slopper on Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 04:15:02 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4042ba9c_1@news1.prserv.net>
Source record: 99146

The first thing I would try is to add or subtract a quarter wave of coax (~85') to the feedline. And don't be so sloppy with your spelling. It is a sloper.

--
Crazy George
Remove N O and S P A M imbedded in return address

<snip>
It seems that everything I
> do changes the tuning. Even station grounds change the situation.
> Any help or conversation is welcome.
> TNX,
> Mike

3325. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 04:53:30 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4042C1CA.80655C44@cwis.net>
Source record: 99147

Reg,
Come on, you know what 'Q' is good for. Bragging
rights! "My antenna is 'Q'ter than your antenna!"
'Doc

PS - Hang on, Art is working up to it...

3326. Re: 160 Slopper on Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 05:01:28 UTC
From: whagen6@cs.com
Message-ID: <20040301000128.26306.00000637@mb-m20.news.cs.com>
Source record: 99148

or, sloaper. or, slowper. or, sloupa (brittish). or, sloep'r (NASCAR). or, try some inductive or capacitive matching at the feedpoint.

3327. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 05:33:07 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4042cb2b_6@corp.newsgroups.com>
Source record: 99149

Tdonaly wrote:
> You might want to go practice the socratic method on someone else,

The truth is, that between the 3:1 SWR limits, a dipole has a lot
of characteristics similar to a tuned LC circuit. What happens at
triple the resonant frequency is irrelevant to the context.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3328. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 05:45:51 UTC
From: tdonaly@aol.com
Message-ID: <20040301004551.09105.00000542@mb-m14.aol.com>
Source record: 99150

Cecil wrote,
>
>Tdonaly wrote:
>> You might want to go practice the socratic method on someone else,
>
>The truth is, that between the 3:1 SWR limits, a dipole has a lot
>of characteristics similar to a tuned LC circuit. What happens at
>triple the resonant frequency is irrelevant to the context.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

Yes, Cecil, whatever you say, Cecil. Now have some warm milk
and go back to sleep.
73,
Tom Donaly, KA6RUH

3329. s9 noise problem related to position of antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 05:52:05 UTC
From: tedoboxer <tedoboxer@btopenworld.com>
Message-ID: <c1uj25$38i$1@titan.btinternet.com>
Source record: 99151

Can you please advise on the optimal position for my atu. I'm a novice ham, and at the moment I've got a random length of wire slung between my attic roof and a garden tree (about 40 feet high), with a connection to the centre wire of a 50 ohm coax cable as soon as it enters the attic roof, down to my antenna tuner. My problem is a very high level of electrical noise across most HF bands, especially the lower ones. We have a lot of electrical cabling in the roof for lights, satellite tv etc, and switching them all off would provoke a family riot. Would it be any better if the atu was between the wire and the coax where it enters the roof (although it would be difficult for me to get a power supply up there)? Any other possible solutions to the noise problem? Thanks for your help.

3330. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 05:54:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pdj5405mitflv4l6j7s1o8lv5115tb395e@4ax.com>
Source record: 99152

On Sun, 29 Feb 2004 22:53:30 -0600, 'Doc <w5lz@cwis.net> wrote:
>Reg,
> Come on, you know what 'Q' is good for. Bragging
>rights! "My antenna is 'Q'ter than your antenna!"
> 'Doc
>
>PS - Hang on, Art is working up to it...

This is the well considered recommendation of 8 out of 7 Docs.
Otherwise known as Q-tip #22. ;-)

73's
Richard Clark, KB7QHC

3331. Re: s9 noise problem related to position of antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 06:02:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <j1k5401chdkpgmedpok0pricchn2afdlb@4ax.com>
Source record: 99153

On Mon, 1 Mar 2004 05:52:05 +0000 (UTC), "tedoboxer"
<tedoboxer@btopenworld.com> wrote:
>Can you please advise on the optimal position for my atu. I'm a novice ham,
>and at the moment I've got a random length of wire slung between my attic
>roof and a garden tree (about 40 feet high), with a connection to the centre
>wire of a 50 ohm coax cable as soon as it enters the attic roof, down to my
>antenna tuner. My problem is a very high level of electrical noise across
>most HF bands, especially the lower ones. We have a lot of electrical
>cabling in the roof for lights, satellite tv etc, and switching them all off
>would provoke a family riot. Would it be any better if the atu was between
>the wire and the coax where it enters the roof (although it would be
>difficult for me to get a power supply up there)? Any other possible
>solutions to the noise problem? Thanks for your help.
>
Hi OM,

First, confirm your source of noise. During the wee hours, throw the
breaker to those electrical and electronics devices and see if the
noise goes away. No use in blaming the innocent. Use a battery
powered receiver if throwing the breaker also means killing your
shack.

Much of noise actually arrives through the Mains power connection
(typically a ground loop). If you can, move your rig's power to a
different breaker (break ALL grounds to do this, it may be more subtle
than you might imagine at first glance to do this). Dimmer noise (and
other sources) often is conducted through sharing a common breaker.

Radiative noise (not coming in through the mains, but over the air)
can be snubbed by using a choke at the coaxial far end (try moving
your feedpoint out and away from the attic, and placing a
choke/current BalUn on it).

73's
Richard Clark, KB7QHC

3332. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 06:40:48 UTC
From: dplatt@radagast.org
Message-ID: <1045mngl59e1364@corp.supernews.com>
Source record: 99154

In article <YWR%b.70894$Xp.330983@attbi_s54>,
aunwin <aunwin@insightbb.com> wrote:

>Now saying that I look at efficiency in two different ways and frankly do
>not understand what 'efficiency' represents in modeling programs. Mainly I
>look at efficiency as work in versus work out,
>very simplisticy work or energy impinged on a radiator surface
>relative to the USEABLE energy out, this creates problems when one uses a
>communication system or just refering to an antenna alone.

You're welcome to define "efficiency" in this way for the purpose of
study and discussion, of course. The real question, I think, is
whether this particular definition is at all useful in this case!

Quite simply, it doesn't really *matter* in most respects whether the
antenna/feedline system "accepts" the out-of-band energy (passes it
through the feedline to the receiver) or "rejects" it (re-radiates
almost all of it due to a severe mismatch with the feedline). Unless
there are desensing, or distortion and intermodulation problems in the
receiver circuitry, the presence or absence of the out-of-band energy
at the receiver won't affect the intelligibility of the in-band signal.

>Now back to what you pointed out with respect to high Q antennas. What you
>overlooked is that the high Q antenna is a PARALLEL circuit thus the
>impedance and bandwidth are related,

Q is *defined* as the ratio of reactance to resistance. It's
perfectly possible for an antenna whose reactance elements are in
series with one another, to exhibit a very high Q. The classic "small
magnetic loop" is one such - loop inductance, in series with tuning
capacitance, in series with the (small) loss resistance and (very
small) radiation resistance. Very high Q.

>when I change frequency the bandpass frequency stays with it and the
>impedance looking at the transmission line does not change.

Art, your wording here is very unclear. It could mean either of two
things:

- You have a narrow-bandwidth, high-Q antenna. When you tune your
receiver, you also tune the antenna somehow (changing some of the
reactance values), and so you manually move the antenna's narrow
range of good-match-to-feedline frequencies to track those that
you're receiving.

This is the approach used by the classic small magnetic loop antenna.

- You have an antenna which you say exhibits high-Q behavior, but
which somehow has a broad SWR bandwidth (a.k.a. a fairly steady,
not-varying-very-much, almost-entirely-resistive-and-not-very-
reactive feedpoint impedance, over a fairly broad frequency range).

Frankly, if this latter is what you mean, I fail to see how you can
reconcile the two characteristics - it can't be both high-Q, and
stable-and-resistive-feedpoint-impedance-over-a-broad-frequency-
range.

>On the other efficiency point, when dealing with parallel circuitry
>you are not encumbered with wavelength physical dimensions because parallel
>circuitry allows for one single radiating member
>or a cluster of short radiating members.

Here, again, it is very unclear to me what you mean to say. You could
be meaning any of a dozen different things with this statement.

Unless you're willing to draw a clear picture of the sort of antenna
system you're trying to describe, I cannot comment on it.

> It is for that reason I tried to
>look at efficiency in a different way and why I migrated to radiation
>efficiency per unit length.

Aack. I think you just defined efficiency in terms of itself??? When
you say "radiation efficiency per unit length", just what do you
mean by the phrase "radiation efficiency"? What is its dimension
(i.e. in what units is it measured)?

> Yes it may be an unusual way of looking at
>things but so is the use of bandpass circuitry in micro size and then
>expanding it to a macro size with radiation abilities and no relationship to
>wavelength but everything to do ith coupling,,a word much hated on this
>newsgroup.

Again, aack. To me, it seems as if you just threw together a chain of
words there, with absolutely no "hooks" to connect what you said to
anything physically describable.

>My antenna that I play with is based around a 'T' circuit
>which is what the inbuilt tuner of the radio has , so I unhooked the
>capacitors and the inductance and put the equivalents into the radiating
>antenna circuit which the radio controls remotely and thus ensures constant
>Q and constant resonance/ impedance.

As best as I can puzzle out what you said, it sounds to me as if
you've got some sort of matching section up at the antenna, composed
of wire and transmission-line elements and other non-lumped elements,
whose values are selected to give you a decent match over a reasonably
broad portion of a band.

Not a bad approach, from what I can see. I don't think it's a new
one - one of the guys in a ham club I attend is very skilled in
designing broadband matches for shortened vertical antennas and the

like. He's shown us examples of doing these sorts of matches using either lumped reactances, or sections of open or shorted transmission line. The more such reactances you include in the design (in various series and parallel arrangements) the more flexibility you have.

>I look forward to your response with respect to the original subject but
>please leave the merits of my antenna out of it so that levity prevails

Art, in making this request I feel that you're doing the same thing you've done in the past - you are debating unfairly. You're asking us to try to follow, understand, and acknowledge your arguments (which as I've pointed out are often worded in a very imprecise and nonstandard way), but every time someone asks you for a real, honest-to-$DEITY physical model or example, you squirm out under one pretext or another.

As far as I can tell, in the nearly two years I've been reading what you've written, you have never once actually described one of the systems you're trying to discuss, with sufficient clarity for anyone to be able to reproduce one, and either measure or critique it.

Until you do - until you "put salt on its tail" - I think you're just wasting your time and energy, and everybody else's. If you're willing to take this step, and give a precise physical description of at least *one* system which we can use for the purpose of discussion, I'm game to continue the debate and analysis. If not, then for the moment I have nothing more to say, and will probably abandon this thread.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3333. Re: s9 noise problem related to position of antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 08:26:34 UTC
From: Jim Chumbley <jamesfchumbley@att.net>
Message-ID: <_sC0c.59794$aH3.1845765@bgtnsc04-news.ops.worldnet.att.net>
Source record: 99155

Immediately upon moving to my new QTH, I was also struck with an S9+ noise problem. Although it was not present all the time, I was certain that it was caused by the electric company's high voltage lines just above my back yard fence. After much investigation, they were convinced that their system was clean and was generating no noise. They were right. One night, late at night when everything in the house was still and quiet, the S9+ noise came back, right in the middle of a QSO. I tore off my headphones in disgust, just in time to hear the familiar clunk sound that was made by the ice maker when its motor was running, dumping the ice cubes out of the trays into the bin below. When it finished, I put my headphones back on. Yep, no noise. 40 meters was as quiet as the rest of my house. I replaced the ice maker and never had the problem again.

After you try the helpful recommendations by KB7QHC, try to isolate the noise by turning off one at a time every piece of equipment that you have in your house, being careful to test for the presence/absence of noise after each one. Remember that some items are still powered after you turn off their power switches. You will have to unplug these. Be sure to unplug your house's heater. Check that lightbulbs are completely screwed into their sockets so that there is no electrical arcing when it is turned on. Turn off and unplug your computer, video displays also.

If I were you, I would temporarily remove the ATU from the antenna feedline completely and unplug it so that it cannot draw any power. If it is an automatic unit, it will have motors in it. If your ATU is not itself the cause of the noise, changing its location will have no effect on the noise at all.

Another thing that comes to mind is the ARRL publication on RFI. We usually think of RFI as something that we hams cause to someone else, but it can often be the case that we are the ones affected by noise caused by others or other electrical items in the house. That book has been very helpful to me.

Oh, yes. About the family riot. You can prevent this by enlisting the help of the kids in hunting down the problem. This puts them on your side. I'll bet they will be thrilled in being asked to help you solve a problem. Children don't often get a chance to help parents solve a problem.

One last thing. Don't give up. You can solve this.

VY 73 DE N6UF

3334. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 11:41:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4043218a$1_4@corp.newsgroups.com>
Source record: 99156

Tdonaly wrote:
> Cecil wrote,
>>The truth is, that between the 3:1 SWR limits, a dipole has a lot
>>of characteristics similar to a tuned LC circuit. What happens at
>>triple the resonant frequency is irrelevant to the context.
>
> Yes, Cecil, whatever you say, Cecil. Now have some warm milk
> and go back to sleep.

Assume we have an impedance plot on a Smith Chart of a dipole with a resonant R+j0 impedance and a Q of 12 within the range of SWR <= 3:1. Now we replace the dipole with an RLC circuit with the same R, same Q, same resonant frequency and plot this second impedance curve on a Smith Chart within the range of SWR <= 3:1. What will be the differences in those two plots? How will you be able to glance at those two plots and tell which is which?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3335. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 11:47:30 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0403010347.167fdc0c@posting.google.com>
Source record: 99157
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Peter Gottlieb" <none@bestweb.net> wrote in message
news:<103vd2vci9e2c40@corp.supernews.com>...
> Mydoom.F just got into one machine here which had McAfee running and fully
> updated. McAfee then could not clean it. The free cleaner from Symantec
> (Norton AV) did the job.
>
> You can build up all sorts of defences, or you can switch over to Linux,
> which I am strongly considering for this office.

Who sez that Linux is "bulletproof" in this context? In the extreme
assume that *everybody* switched to Linux: How long might you suppose
it would take for the spammers to bust Linux and go on doing "business
as usual"?

I'll give 'em ten minutes . . .

Brian w3rv

>
>
> "Gary S." <Idontwantspam@net> wrote in message
> news:r7mp305qpnk91ok98coq97aaemimkrris1@4ax.com...
> > On Wed, 25 Feb 2004 17:01:23 +0000 (UTC), mikea@mikea.ath.cx (Mike
> > Andrews) wrote:
> >
> > >In <403cce50$1_8@corp.newsgroups.com> (rec.radio.amateur.boatanchors),
> Cecil Moore wrote:
> > >> vcxbbs@eastlink.ca wrote:
> > >> >
> dbjjvlhdbrpobcmbngkgdtxpoevsvbqgrocymgcgfswjqeknbnzxqlezzbvbydrbkwvttesckwdn
> mwtcs
> > >
> > >> Just curious, does this string of letters have any meaning?
> > >
> > >I suspect it's just a pseudorandomly-generated "hashbuster" to help
> > >the spam avoid filters that hash the message body and check against
> > >known spam.
> >
> > Exactly. As spamfiltering has gotten better, the spammers have gotten
> > more sophisticated.
> >
> > The key clue is the attachment. Besides EXE files, ANY files with the
> > extensions COM, BAT, SCR, and PIF could also be damaging programs.
> > Note that sometimes a file will have a name ending in more than one

> > extension, but only the last one matters. More trickery.
> >
> > Do not open any attachments that you have the slightest suspicion of,
> > no matter who appears to have sent them. A friend could have a virus
> > on their machine, sending out copies to everyone in their address
> > book.
> >
> > Get a good antivirus program, including Norton Antivirus or MacAfee,
> > which gets frequent updates of virus definitions, and run it on EVERY
> > file received, via email, Internet, or disk.
> >
> > The time and money you should put into prevention are a tiny fraction
> > of what could be involved in recovering from a virus on your machine.
> >
> > Happy trails,
> > Gary (net.yogi.bear)
> > --
> > at the 51st percentile of ursine intelligence
> >
> > Gary D. Schwartz, Needham, MA, USA
> > Please reply to: garyDOTschwartzATpoboxDOTcom

3336. MP-1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 12:05:08 UTC
From: Yves Dussault <yvesNOdussault@videotron.ca>
Message-ID: <9m9640du7sjkldcusvk3ejg4g113efivqj@4ax.com>
Source record: 99158

Any of you has used the MP-1 antenna?
Comments?
VE2ATD

3337. Newbie TV rotator question, wiring

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 13:10:38 UTC
From: CME <cme100@hotmail.com>
Message-ID: <ndSdnaBkQeYJq97dRVn-tw@look.ca>
Source record: 99159

I have a channel master rotator control, sticker on back says model 9513,
the model on the case says 72211.

Can someone tell me what the 3 wires due, like are the gound, hot , neutral.

the roatotor motor at the antenna has different wire codes to the piece at
the control.

dont want to wire it up and fry it.

the control has number 1 to 3 at the terminals. its 25 V 1.5 amp output.

Rotor motor at antenna has other color coded wires, previous owner used a
seperate piece of wire with different wires. Inside the box its numbered 1
to 3 also, but the rotator motor and controller are suppose to be different.

On the controller the number 1 terminal is off to one side,

In the rotor motor Number 1 tab has a black wire going to it and 2 and 3
have yellow wires coming off the motor field(coils) it looks like.

3338. Re: s9 noise problem related to position of antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 13:12:27 UTC
From: w9dmk@crosslink.net
Message-ID: <404332a9.2015688@news.crosslink.net>
Source record: 99160

On Mon, 1 Mar 2004 05:52:05 +0000 (UTC), "tedoboxer"
<tedoboxer@btopenworld.com> wrote:

>....snip My problem is a very high level of electrical noise across
>most HF bands, especially the lower ones.

Look for any "Touch Lamps" that are in your home and get rid of them.
They are wide band noise generators - on or off.

73,
Bob

3339. Re: which J-Pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 13:19:58 UTC
From: Richard Heindel <rheindel@neo.rr.com>
Message-ID: <2MG0c.2898$G63.1190@fe3.columbus.rr.com>
Source record: 99161

Hi Dustin,
Here's another site you might want to check out,
http://www.arrowantennas.com/inst/inst.html
Look under "open stub j-poles" and then look at the OSJ 146/440 info.
It's easy to build and has excellent results on both bands.
73 Richard WB8KRN

3340. Re: s9 noise problem related to position of antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 13:52:33 UTC
From: K7JEB <k7jeb.remove_this@qsl.net>
Message-ID: <jCH0c.8555$h23.3141@fed1read06>
Source record: 99164

> Can you please advise on the optimal position for my atu. I'm a novice ham,
> and at the moment I've got a random length of wire slung between my attic
> roof and a garden tree (about 40 feet high), with a connection to the centre
> wire of a 50 ohm coax cable as soon as it enters the attic roof, down to my
> antenna tuner.

From what you have written, I surmise that you do not have
a ground connection for the coax shield at the antenna
feedpoint, that is, at the attic roof. I would add such
a wire from that point down to a ground rod outside your
house. Attaching some buried ground wires to that rod
would help even more.

You might also add a balun between the coax line and the
antenna feedpoint. This can be simply another length of
coax coiled up at the feedpoint and connected between the
existing coax and the antenna. You didn't mention the
frequencies you are using the antenna on. For lower
frequencies, you would need more coax. Assuming a lower
frequency of 7 MHz, a 20-foot length of coax formed into
a 12-inch diameter coil should suffice. Commercial baluns
are relatively cheap and small. If you use one of those,
get a 1:1 type and make sure you connect the ground wire
to the wire on the balun that has a DC connection to
the coax connector shield. Or get a special form of the
balun called an UNUN and connect the ground wire to the
shield of its isolated coax connector and the antenna
to the center pin.

The antenna you have constructed, although having a
horizontal wire, actually responds to signals that
are vertically polarized, particularly at the lower
frequencies. Unfortunately, noise is also predominantly
vertically polarized, so the antenna is somewhat inherently
noisy.

Of course, I assume you have already followed the mainline
advice offered to you by other posters here that you
eliminate, reduce the effect of, or at least identify the
noisy appliances in your own house.

> Would it be any better if the atu was between
> the wire and the coax where it enters the roof (although it would be
> difficult for me to get a power supply up there)?

I wouldn't do that unless you were having trouble getting an impedance match on the higher frequencies. And to make the ATU work at the feedpoint, a ground connection from there is absolutely required.

Hope this helps....

Jim Bromley, K7JEB
Glendale, AZ, USA

3341. Re: s9 noise problem related to position of antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 14:02:13 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <FnH0c.3298$Zt6.1776@newssvr22.news.prodigy.com>
Source record: 99162

"Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
news:404332a9.2015688@news.crosslink.net...
> On Mon, 1 Mar 2004 05:52:05 +0000 (UTC), "tedoboxer"
> <tedoboxer@btopenworld.com> wrote:
>
> >....snip My problem is a very high level of electrical noise across
> >most HF bands, especially the lower ones.
>
> Look for any "Touch Lamps" that are in your home and get rid of them.
> They are wide band noise generators - on or off.

Aquarium heaters are known to be bad noise
makers. Any electrical device where the contacts
are not cleanly opening/closing can cause it.

I recently had the power company come out and,
lo and behold, there was a problem in the HV side
of the circuit supplying my house. I had a radio on
the back porch, battery-powered, while the serviceman
tightnened connections. He redid everything on the
low-voltage side, no help... then he got out the fiberglas
extend-a-pole and touched the HV cutout (big knife switch)...
instant crunch in the receiver (tuned to 50.125MHz USB).
He cycled the big switch and the power noise has been
much better (still comes and goes some).

I found a bad circuit breaker contact in my outside
service panel after that... buss bar had been installed
without bending the cable properly, resulting in bad
contact where the breakers clip on to the bar.

My point is, you could have three different sources of noise... use
the battery-powered receiver to isolate the noise source. Once
you know the source of the noise, you are most of the way to
solving your problem.

--
Steve
KI5YG
.

3342. [OT] was: Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 14:07:52 UTC
From: Michael Hofmann <westbound@gmx.net>
Message-ID: <c1vfuj$1mn2ef$1@ID-25863.news.uni-berlin.de>
Source record: 99163
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Brian Kelly wrote:

> Who sez that Linux is "bulletproof" in this context? In the extreme
> assume that *everybody* switched to Linux: How long might you suppose
> it would take for the spammers to bust Linux and go on doing "business
> as usual"?

Show me a Linux email client that executes binaries.

Michael

What has all this got to do with amateur radio?

3343. Re: [OT] was: Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 14:28:34 UTC
From: mikea@mikea.ath.cx
Message-ID: <c1vhai$m8l$2@puck.litech.org>
Source record: 99165
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

In <c1vfuj$1mn2ef$1@ID-25863.news.uni-berlin.de> (rec.radio.amateur.boatanchors), Michael Hofmann wrote:
> Brian Kelly wrote:

> > Who sez that Linux is "bulletproof" in this context? In the extreme
> > assume that *everybody* switched to Linux: How long might you suppose
> > it would take for the spammers to bust Linux and go on doing "business
> > as usual"?

> Show me a Linux email client that executes binaries.

If books were designed by Microsoft, the Anarchist's Cookbook
would explode when you read it.
-- Mark W. Schumann

> What has all this got to do with amateur radio?

Little or nothing, but it is pertinent to those folks who read this
newsgroup using Windows-based mail/newsreaders.

--
Take it from the staff of a five-cat house: A group of cats is a
"conceit." They'd like to be a "pride" but that would fool no one.
-- Morely Dotes, in nanae

3344. Re: [OT] was: Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 14:47:12 UTC
From: Peter Gottlieb <none@bestweb.net>
Message-ID: <1046j7hopiojt1c@corp.supernews.com>
Source record: 99166
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Michael Hofmann" <westbound@gmx.net> wrote in message
news:c1vfuj$1mn2ef$1@ID-25863.news.uni-berlin.de...
> What has all this got to do with amateur radio?

Cyberterrorism is a real concern. Should a Windows vulnerability be exploited and take out significant numbers of systems, it would be an advantage to have your station fully operational, including all digital modes supported by your computer. So it has a lot to do with amateur radio to have a robust computer.

3345. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 16:02:21 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <jdidnaHX8IQUw97d4p2dnA@comcast.com>
Source record: 99167

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4043218a$1_4@corp.newsgroups.com...
.....
> Assume we have an impedance plot on a Smith Chart of a dipole with a
> resonant R+j0 impedance and a Q of 12 within the range of SWR <= 3:1. Now
we
> replace the dipole with an RLC circuit with the same R, same Q, same
resonant
> frequency and plot this second impedance curve on a Smith Chart within the
> range of SWR <= 3:1. What will be the differences in those two plots? How
> will you be able to glance at those two plots and tell which is which?
> --
> 73, Cecil http://www.qsl.net/w5dxp

For a series RLC circuit the R will stay constant with frequency. For a
dipole the R will change with frequency. You knew that.

Tam/WB2TT

3346. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 17:11:06 UTC
From: kludge@panix.com
Message-ID: <c1vqra$p1p$1@panix2.panix.com>
Source record: 99168
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Brian Kelly <kelly@dvol.com> wrote:
>"Peter Gottlieb" <none@bestweb.net> wrote in message
news:<103vd2vci9e2c40@corp.supernews.com>...
>> Mydoom.F just got into one machine here which had McAfee running and fully
>> updated. McAfee then could not clean it. The free cleaner from Symantec
>> (Norton AV) did the job.
>>
>> You can build up all sorts of defences, or you can switch over to Linux,
>> which I am strongly considering for this office.
>
>Who sez that Linux is "bulletproof" in this context? In the extreme
>assume that *everybody* switched to Linux: How long might you suppose
>it would take for the spammers to bust Linux and go on doing "business
>as usual"?

It's not bulletproof at all, but it doesn't have severe design deficiencies
at least. They'll still keep finding buffer overrun problems in Linux, but
we won't be seeing the sort of boneheaded design flaws that Windows has.
The real problem is that the Windows issues aren't being fixed, they are just
being patched around and obscured.... and then the next virus comes along.
Until the fundamental problems get fixed, it's not going to get any better.
With Linux, at least there are routes to get that sort of problem fixed if it
should appear. I'm no Linux fan, but it's sure a big step up in terms of
unified design.
--scott

--
"C'est un Nagra. C'est suisse, et tres, tres precis."

3347. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 17:14:18 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403010914.b412dfd@posting.google.com>
Source record: 99169

dplatt@radagast.org (Dave Platt) wrote in message
news:<1045mngl59e1364@corp.supernews.com>...
> In article <YWR%b.70894$Xp.330983@attbi_s54>,
> aunwin <aunwin@insightbb.com> wrote:
>
> >Now saying that I look at efficiency in two different ways and frankly do
> >not understand what 'efficiency' represents in modeling programs. Mainly I
> >look at efficiency as work in versus work out,
> >very simplisticy work or energy impinged on a radiator surface
> >relative to the USEABLE energy out, this creates problems when one uses a
> >communication system or just refering to an antenna alone.
>
> You're welcome to define "efficiency" in this way for the purpose of
> study and discussion, of course. The real question, I think, is
> whether this particular definition is at all useful in this case!

First David I am going to answer as I come to a relavent portion
knowing that you are civil which for me is a real pleasure to respond
to.

Efficiency is important to me in that I would rather substitute a
circuit that radiates more than live with parts of a dipole that have
a low radiation per unit length. If I start off with a particular
length of radiator I want to get as much radiation as possible from
that length. The dipole does a great job for about a third of its
length and then drops off badly so with all things, if it doesn't work
to your satisfactions then replace that part with something that does.

>
> Quite simply, it doesn't really *matter* in most respects whether the
> antenna/feedline system "accepts" the out-of-band energy (passes it
> through the feedline to the receiver) or "rejects" it (re-radiates
> almost all of it due to a severe mismatch with the feedline). Unless
> there are desensing, or distortion and intermodulation problems in the
> receiver circuitry, the presence or absence of the out-of-band energy
> at the receiver won't affect the intelligibility of the in-band signal.

Well let me remind you once more a LCR circuit is what I am
describing. This means that its input is tailored to recieve the
signal required and no more
and it does this with a constant impedance of choice so no matching is
required at the outset which is much better that treating it as an
afterthought as you pointed out in the other post. Thus with such an
arrangement antenna performance does not drop off as with a dipole
where the gain drops off when not operating at a resonant point.

>
> >Now back to what you pointed out with respect to high Q antennas. What you
> >overlooked is that the high Q antenna is a PARALLEL circuit thus the
> >impedance and bandwidth are related,
>
> Q is *defined* as the ratio of reactance to resistance. It's
> perfectly possible for an antenna whose reactance elements are in
> series with one another, to exhibit a very high Q. The classic "small
> magnetic loop" is one such - loop inductance, in series with tuning
> capacitance, in series with the (small) loss resistance and (very
> small) radiation resistance. Very high Q.

I never said that a series circuit could not attain a high Q

>
> >when I change frequency the bandpass frequency stays with it and the
> >impedance looking at the transmission line does not change.

Now isn't that great and it is getting a lot of attention. Ask
yourself why.

>
> Art, your wording here is very unclear. It could mean either of two
> things:
>
> - You have a narrow-bandwidth, high-Q antenna. When you tune your
> receiver, you also tune the antenna somehow (changing some of the
> reactance values), and so you manually move the antenna's narrow
> range of good-match-to-feedline frequencies to track those that
> you're receiving.

Right on...that is exactly what I have

>
> This is the approach used by the classic small magnetic loop antenna.
>
> - You have an antenna which you say exhibits high-Q behavior, but
> which somehow has a broad SWR bandwidth (a.k.a. a fairly steady,
> not-varying-very-much, almost-entirely-resistive-and-not-very-
> reactive feedpoint impedance, over a fairly broad frequency range).
>
RIGHT ON AGAIN. But you didn't mention that it much smaller than
wavelength controlled antennas which is why many enjoy it.

> Frankly, if this latter is what you mean, I fail to see how you can
> reconcile the two characteristics - it can't be both high-Q, and
> stable-and-resistive-feedpoint-impedance-over-a-broad-frequency-
> range.

But itis a PARALLEL CIRCUIT. JUST THINK OF A BANDPASS FILTER What
characteristics does a bandpass filter have?
>
> >On the other efficiency point, when dealing with parallel circuitry
> >you are not encumbered with wavelength physical dimensions because parallel

> >circuitry allows for one single radiating member
> >or a cluster of short radiating members.
>
> Here, again, it is very unclear to me what you mean to say. You could
> be meaning any of a dozen different things with this statement.

David, unlock your mind away from wavelength thoughts, think of an antenna as just a plain cercuit, series if you will...it does radiate regardles of its impedance. If you want a series circuit to have a 50/70 impedance then a dipole will do it...Thats all
The parallel circuit has all the same constituents as a dipole so it to will radiate but with the advantage that you can choose the impedance to one of your choice as well as the size of your circuit to one of your choice.
Open your mind away from dipoles and think totaly of electrical circuits which contain the same constituents and both can radiate and compare their attributes.

>
> Unless you're willing to draw a clear picture of the sort of antenna
> system you're trying to describe, I cannot comment on it.

I have tried before David but manyt do not have the patience to listen to the whole story and jump to conclusions and spout off and it is then history.
I even get accused of violating natures laws hen I have not even explained what I have. I acknoweledge that I am lacking in communication but there are reasons for it but technical conversation should be able to overcome it especially when I have such an antenna, have offered computor records and personal examination.
But when you are called a liar all is lost.
Draw yourself a band pass circuit and close its output port. Choose any size that you desire and check it out on any computor progrsam with an abundance
of calculation points remembering that any length or member that connects the
lumped circuits contained its own passive components which can only be removed from the lumped items to retain the original characteristic of the original
bandpass circuit.
Now with respect to the clustering comment. As you probably know complex circuitry can be arranged such that it can be boiled down to a simple circuit.
In the same way BUT IN REVERSE one can break up the bandpass parallel circuit
into several circuits each containing it relavency to other circuits as per the bandpass circuit. Again with dimensions of your choice hit the computor again
and the circicuits will combine in some cases but you can have as many circuits as you desire by extending the original bandpass circuitry which will provide elements that number no more than the

original lumped circuits introduced but usually/(always) less because
of circuit coupling.
Now you should see that where a dipole limits the frequency span of
use
the parallel arangement does not limit you in the same way.

No2 the use of Q seems to unsettle those with an electrical education.
If one reviewes the design of radio's we know that the first
requirement is to put a filter in as far to the front that you can go.
Well I have done this at the antenna which is the farthest I can get.
Now look at the bandpass section
where by coupling you can provide for two signals in bell shaped type
curves.
Thes are both high Q curves. When you merge these two 'bell' curves
into one
you must know that its amplitude increases. This is one of the things
you obtain
by using parallel circuit based radiators as well as frequency
discrimination
and with higher efficiency per unit length because coupling produces
an element where the center portion of two series style radiators is
replaced by a loop circuit or maybe some will call it a tank circuit.
Now David I am not electrical and I am only describing it as how I see
it which may well be in error BUT I have made antenna ith both Pi and
T circuitry and they each work. I wrote up in a patent an antenna that
was a combined loop dipole which also worked, unfortunately many
people defined an elements total dimensions in the first place which
you cannot do if you want to balance out reactances. Hopefully you
will now understand where I am coming from since I have never been
allowed to describe all in its entirety as change is unacceptable by
gurus. I readily accept that all my reasoning may be flawed
but that is not unusual when one experiments outside of the box. But
if it works
is it so wrong to share with the expectation of being called a liar
and a cheat?
Watch this thread and see what happens now and you will see why I have
to stop
in my tracks.

>
> > It is for that reason I tried to
> >look at efficiency in a different way and why I migrated to radiation
> >efficiency per unit length.
>
> Aack. I think you just defined efficiency in terms of itself??? When
> you say "radiation efficiency per unit length", just what do you
> *mean* by the phrase "radiation efficiency"? What is its dimension
> (i.e. in what units is it measured)?

Hopefully I have answered that but I am open to questioning until the
derision becomes to heavy.

>
> > Yes it may be an unusual way of looking at
> >things but so is the use of bandpass circuitry in micro size and then
> >expanding it to a macro size with radiation abilities and no relationship to
> >wavelength but everything to do ith coupling,,a word much hated on this
> >newsgroup.
>
> Again, aack. To me, it seems as if you just threw together a chain of
> words there, with absolutely no "hooks" to connect what you said to
> anything physically describable.

Well I assume that some of the people on this newsgroup were educated
and open minded rather than hacking at a hobbiest so that they feel
that they are elevating their on stature.

>
> >My antenna that I play with is based around a 'T' circuit
> >which is what the inbuilt tuner of the radio has , so I unhooked the
> >capacitors and the inductance and put the equivalents into the radiating
> >antenna circuit which the radio controls remotely and thus ensures constant
> >Q and constant resonance/ impedance.
>
> As best as I can puzzle out what you said, it sounds to me as if
> you've got some sort of matching section up at the antenna, composed
> of wire and transmission-line elements and other non-lumped elements,
> whose values are selected to give you a decent match over a reasonably
> broad portion of a band.
>
> Not a bad approach, from what I can see. I don't think it's a new
> one - one of the guys in a ham club I attend is very skilled in
> designing broadband matches for shortened vertical antennas and the
> like. He's shown us examples of doing these sorts of matches using
> either lumped reactances, or sections of open or shorted transmission
> line. The more such reactances you include in the design (in various
> series and parallel arrangements) the more flexibility you have.
>
> >I look forward to your response with respect to the original subject but
> >please leave the merits of my antenna out of it so that levity prevails
>
> Art, in making this request I feel that you're doing the same thing
> you've done in the past - you are debating unfairly. You're asking us
> to try to follow, understand, and acknowledge your arguments (which as
> I've pointed out are often worded in a very imprecise and nonstandard
> way), but every time someone asks you for a real, honest-to-$DEITY
> physical model or example, you squirm out under one pretext or
> another.

No,No, NO Only if history shows that it is the beginning of a mockery
chain.
My intent has always been to share because I gain by better
understanding

I did not choose this method of communication, it resulted from being
hammered
insesantly before I could complete my story. People made up their
minds too quickly and since there have been so many frauds with
antennas they assumed that I also was one of them and frankly the odds
are 99.9% against producing anything new, as the Professor said
Antennas have been studied for so long and by so many that now
everything is known about antennas. Even the most uneducated person in
the world would feel safe by taking on the role of expert

>
> As far as I can tell, in the nearly two years I've been reading what
> you've written, you have never once actually described one of the
> systems you're trying to discuss, with sufficient clarity for anyone
> to be able to reproduce one, and either measure or critique it.
>
> Until you do - until you "put salt on its tail" - I think you're just
> wasting your time and energy, and everybody else's. If you're willing
> to take this step, and give a precise physical description of at least
> *one* system which we can use for the purpose of discussion, I'm game
> to continue the debate and analysis. If not, then for the moment I
> have nothing more to say, and will probably abandon this thread.

I have no problem with you abandoning the thread or me, it was a
pleasure
to have communicated with you. It is a pity that some members have
discarded
polite, measured and informative postings tho I must add that I also
am not without sin.
Best Regards
Art Unwin KB9MZ.....XG and a cockney

3348. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 17:22:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40437170_1@corp.newsgroups.com>
Source record: 99170

Tam/WB2TT wrote:
> For a series RLC circuit the R will stay constant with frequency. For a
> dipole the R will change with frequency. You knew that.

Yep, but the point is that the reactance changes much faster than the
resistance. For my 75m dipole between the SWR = 3:1 points, my R
changes by 7 ohms while my X changes by 130 ohms.

On a 50 ohm Smith Chart, the plot goes from 1.3-j1.3 through 1.35+j0
to 1.4+j1.3. When I plot that arc on a Smith Chart, at a glance, I
can hardly tell it from an RLC circuit response arc.

Presumably, the RLC arc would go from 1.35-j1.3 through 1.35+j0
to 1.35+j1.3. A difference of 0.05 is hardly noticeable on a 3
inch Smith Chart arc and 5% accuracy is usually considered to be
pretty good. It is certainly not enough of a difference to elicit
cries of "wrong" ... "misleading" ... "to the point of imbecility".
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3349. Re: Teen Sister Masterbating 9159

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 17:24:09 UTC
From: mikea@mikea.ath.cx
Message-ID: <c1vrjo$m8l$4@puck.litech.org>
Source record: 99171
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

In <c1vqra$p1p$1@panix2.panix.com> (rec.radio.amateur.boatanchors), Scott Dorsey wrote:
> Brian Kelly <kelly@dvol.com> wrote:
> >"Peter Gottlieb" <none@bestweb.net> wrote in message
news:<103vd2vci9e2c40@corp.supernews.com>...
> >> Mydoom.F just got into one machine here which had McAfee running and fully
> >> updated. McAfee then could not clean it. The free cleaner from Symantec
> >> (Norton AV) did the job.
> >>
> >> You can build up all sorts of defences, or you can switch over to Linux,
> >> which I am strongly considering for this office.
> >
> >Who sez that Linux is "bulletproof" in this context? In the extreme
> >assume that *everybody* switched to Linux: How long might you suppose
> >it would take for the spammers to bust Linux and go on doing "business
> >as usual"?

> It's not bulletproof at all, but it doesn't have severe design deficiencies
> at least. They'll still keep finding buffer overrun problems in Linux, but
> we won't be seeing the sort of boneheaded design flaws that Windows has.
> The real problem is that the Windows issues aren't being fixed, they are just
> being patched around and obscured.... and then the next virus comes along.
> Until the fundamental problems get fixed, it's not going to get any better.
> With Linux, at least there are routes to get that sort of problem fixed if it
> should appear. I'm no Linux fan, but it's sure a big step up in terms of
> unified design.

To which I'll add that the malware writers are reverse-engineering the
Wondows patches to see what the vulnerabilities are, and then writing
and disseminating exploits for those vulnerabilities, secure in the
knowledge that some large fraction of the Internet-connected Windows
machines around the world will be running unpatched Windows.

Open source is, IMHO, far preferable to that situation. I don't run
Linux at home, and at work we run AIX, FreeBSD or Linux (up-to-date)
on all machines exposed to the raw Internet.

--
Should array indices start at 0 or 1? My compromise of 0.5 was rejected
without, I thought, proper consideration.

(Stan Kelly-Bootle)

3350. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 17:48:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3it6401q8l82k1g5rn4omd7knfpk87b1po@4ax.com>
Source record: 99172

On 1 Mar 2004 09:14:18 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>No2 the use of Q seems to unsettle those with an electrical education.
Reggie recovers quickly ;-)

The rest of us are un-impressed with Q claims :-|

However, the un-educated are all agog :-0

3351. Re: Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 17:56:38 UTC
From: richardharrison@webtv.net
Message-ID: <8667-40437956-293@storefull-3252.bay.webtv.net>
Source record: 99173

Dave, KC1DI wrote:
"You would be better off mounting it in the Horizontal plan(e)...(at other than 40 m)

Performance versus polarization depends on soil loss in the antenna area.

Over poor earth, horizontal polarization is better for take-off angles above 35 degrees. Below 35 degrees, vertical polarization is a little better, but not much, maybe 2dB.

Over good earth, vertical antennas work much better than they do over poor earth. For take-off angles below 30 degrees, the large loop in the vertical plane may be 10 dB better than a large horizontal loop.

Antenna height tends to lower take-off angle.

If you want expert testimony, see "ON4UN`s "Low-Band DXing" page 10-9. ARRL is the publisher.

Best regards, Richard Harrison, KB5WZI

3352. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 18:34:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bbs640hbk1jb56gvbjpsur82g0v329jmg2@4ax.com>
Source record: 99174

On 1 Mar 2004 09:14:18 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:
>a dipole that have a low radiation per unit length.

Let's look at this co-relation. Using the dipole offered as a
reference:
Gain = 2.13dBi/10000mm
Well, from the start, there is no point going further. Dividing dB is
a clear way to get into a great deal of grief because the two
operations bound together are not justified.

The proper operation would be to measure the response in volts or
watts and build a correlation linearly. This is akin to the common
volts/meter expression of field studies.

In that regard, we simply look at the data offered by the cfa crowd
who showed that their design compared abysmally to the standard
implementation it was supposed be so much more efficient in
comparison.

In other words, we start with the standard's actual dimension, compute
the field offered, and then compare the replacement's dimension, and
again find the field offered, then do the ratio of fields offered
against the dimensions.

The original to replacement size ran to something like 1% Expressed
in power terms (same power to both) that is 20dB. What was the
performance differential at 100 wavelengths? Down more than 30dB.
Clearly as you get smaller, you lose signal faster than the simple
scaling. Efficiency per unit length suffers miserably for smaller
antennas.

This, of course, is using real data, real experience. Models conform
to practice such that condemning models does not elevate experience
nor erase loss.

> The dipole does a great job for about a third of its
>length and then drops off badly so with all things

This statement above contains the egregious error of logic. If the
dipole "suffers," then a smaller one "suffers" equally for the same
reason. Even this statement is flawed, because trending towards the
smaller, below first resonance design, the radiation resistance
plummets much faster than the simple linear reduction of ohmic loss.
The sense of "efficiency" as an argument is not balanced because this
ratio has been dismissed (but nature will win out in the end - hence
the abysmal performance of the cfa).

With earth always nearby, its relation to radiation resistance begins
to dominate the reality (if not the consideration) of efficiency.

> Thus with such an
>arrangement antenna performance does not drop off as with a dipole
>where the gain drops off when not operating at a resonant point.

Hi All,

Using the original dipole specification:
at Fo:
Gain = 2.13dBi
at Fo + 10%
Gain = 2.21dBi
at Fo - 10%
Gain = 2.05dBi

So where is this drop off? Does it amount to more than 1dB? NO.
Does it amount to more than 0.1dB? NO. To this point it increases in
one direction (such a strange drop off)! Did I pick too big a step
away from Fo? Too small? Let's see:

at Fo + 50%
Gain = 2.7dBi
at Fo - 50%
Gain = 1.84dBi

Well, it seems if we go bigger, the notion of a drop off is clearly
absurd. If we go smaller, the notion of a drop off just doesn't have
much bite (unless you are really upset about ï¿½dB). I see no point in
looking for this drop off in the fine slivers of ï¿½1% around Fo. Is
there any merit, efficiency-wise, in going smaller? It seems to push
you away from those gains on the plus side of the offset from Fo. It
is an odd argument to say reject gain, go smaller yet.

The only positive argument for small antennas is in "convenience"
which is to say "I don't have any choice so this must be the best
design." Apartment dwellers working HF with their High Q loops know
the losses of efficiency, they know the convenience of having
something that performs, but few claim it surpasses the performance of
a dipole (except those that plunked down their Euros for an Italian
cfa).

As always, earth is the missing component to the discussion (generally
dismissed so as to not upset pet theories). Given the simple trend
shown above, designing a full size 80M antenna gives you no more loss
than 0.37dB over ALL HF AND 160M! Of course, you would have to hoist
it pretty high not to suffer from the proximity of ground, a fate ANY
antenna (no matter how cute the theory) suffers. Ground also causes
reflections. This results in that gain going into the clouds instead
of into DX (let's face, it NVIS claims were invented to bolster the
egos of those theorists who failed distant contacts).

73's
Richard Clark, KB7QHC

3353. Re: Ur opinion on eham.com, QRZ.com, QTH.com???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 19:48:37 UTC
From: Mike Coslo <mjc5@psu.edu>
Message-ID: <40439395.7010309@psu.edu>
Source record: 99175

Mike Rophone wrote:
> QRZ.com was one of the first. QTH.com is one of the neebies. They
> are opening up a bees nest of BS with their forums. Eham will publish
> everything from racial slurs to hams demanding ham businesses be JAILED
> if their parts are a week or two late. If you have something positive to offer,
> you're generally censored. (I guess the theory is that flames bring "visitors"
> to the site.)
>
> I gave up on QRZ.com YEARS ago when they started the forum crap. The mud
> slinging got so bad, it became worse than Usenet! (Hard to believe, huh?!)
>
> The latest entry is QTH.com. Scott seems to be keeping it under control. But
> how long before someone posts the wrong thing and QTH.com gets involved in a
> libel case???
>
> I know some of you are going to choke, but I think one of the best, most well
> maintained, most positive, and most responses from classifieds is ARRL.org. Now
> if they'd just get a DX Cluster server at the site, I'd be their all day!

Let 'em choke, because you are correct.

I'd have to say that the majority of the brouhaha is the result of
creeping codgerism, which is the ability of some older men to get
incredibly angry over almost anything.

You know the drill.... "Hip huggers and teeny shirts? Next thing you
know, it'll be written into the constitution that we have to worship
Satan!" 8^)

- mike KB3EIA -

3354. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 20:22:26 UTC
From: richardharrison@webtv.net
Message-ID: <20456-40439B82-379@storefull-3254.bay.webtv.net>
Source record: 99176

Art, KB9MZ wrote:
"Efficiency is important to me in that I would rather substitute a circuit that radiates more than live with (abide) parts of a dipole that have low radiation per unit length."

Despite many explanations, Art clings to a mistaken idea. All parts of a radiator participate in radiation. Radiation is a product of the length of a small segment of wire times the current through that segment. The field produced at a distant point is the vector combination of all the contributing antenna segments to the field summed at the distant point.

Suppose we have a stringed musical instrument. At its first resonance, a vibrating string isn`t broken up into multiple oscillations, but the entire string is vibrating in a single segment between points fixing the effective ends of the string. In a violin these are called the "bridge" and the "nut".

Near the effective ends of the string, string displacement is small. Near the middle of the string, displacement is large when vibrations in the string are excited. Sound from the string is proportional to string displacement.

Let`s use Art`s scheme and eliminate parts of the string which have small displacement as they don`t do much sound production for us. It might be possible, but the probability is that whatever took the place of the string segmets we removed not only would cost more and complicate our instrument , but be less efficient too.

The 1/2-wave dipole and its monopole equivalent also need their full length for resonance. We often use lengths that by themselves are short of resonance, but we must compensate for the shortfall to get a practical antenna.

If the antenna is short of the length required for first resonance, it has a serious reactance which greatly cuts the current that can flow in the antenna.

Correction of the power factor (neutralizing the reactance) of the short antenna still leaves us with an impaired antenna. The short antenna has a lower radiation resistance than a full-sized antenna.

Efficiency is the ratio of the radiation resistance to the sum of the radiation and loss resistances.
The loss resistance is almost the same for the short or long antenna, so the efficiency is nearly proportional to the radiation resistance.
Fixing the reactance in our antenna doesn`t do anything for our low radiation resistance. This is true for center-loading or end-loading

using Tees, Ells, Vees, capacitive hats or coils. There is hardly any way to improve on the broadcast monopole that has an efficiency which by FCC rules is near 100%, or to improve on the high 1/2-wave dipole which according to antenna authors measures almost as efficient as the standard monopole. Due to an ideal dipole`s position in free-space, I would expect its efficiency to exceed that of an actual medium wave broadcast vertical because the broadcast tower is ground mounted.

Best regards, Richard Harrison, KB5WZI

3355. max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 20:42:41 UTC
From: Dave <noone@nowhere.com>
Message-ID: <FaWdnTbp6v7VPd7dRVn-sQ@crocker.com>
Source record: 99177

have you guys read this one yet?

www.qsl.net/w9dmk/MPTT.pdf

3356. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 21:10:48 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <u5Gdnbhxjr5KO97dRVn-jg@comcast.com>
Source record: 99178

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40437170_1@corp.newsgroups.com...
> Tam/WB2TT wrote:
> > For a series RLC circuit the R will stay constant with frequency. For a
> > dipole the R will change with frequency. You knew that.
>
> Yep, but the point is that the reactance changes much faster than the
> resistance. For my 75m dipole between the SWR = 3:1 points, my R
> changes by 7 ohms while my X changes by 130 ohms.
>
> On a 50 ohm Smith Chart, the plot goes from 1.3-j1.3 through 1.35+j0
> to 1.4+j1.3. When I plot that arc on a Smith Chart, at a glance, I
> can hardly tell it from an RLC circuit response arc.
>
> Presumably, the RLC arc would go from 1.35-j1.3 through 1.35+j0
> to 1.35+j1.3. A difference of 0.05 is hardly noticeable on a 3
> inch Smith Chart arc and 5% accuracy is usually considered to be
> pretty good. It is certainly not enough of a difference to elicit
> cries of "wrong" ... "misleading" ... "to the point of imbecility".
> --
> 73, Cecil http://www.qsl.net/w5dxp

Is that measured or calculated. When I run EZNEC on Reg's 10 meter long
dipole in free space, then at the SWR=3.0 points I get:
Z(50) goes from 1.28 -j1.28 through 1.44 + j0 to 1.62 + j1.34
or
Z(72) from .89 - j.89 through 1 + j0 to 1.125 + j.93..
I suspect the only time you care what the Q on an antenna is if you are
transmitting video.

Tam/WB2TT

3357. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 21:16:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5s97401m1kjjuk50r9qrncm7ihfd3o0b1i@4ax.com>
Source record: 99179

On Mon, 1 Mar 2004 16:10:48 -0500, "Tam/WB2TT" <t-tammaru@c0mca$t.net>
wrote:
>I suspect the only time you care what the Q on an antenna is if you are transmitting
video.
Or voice on a small loop.

73's
Richard Clark, KB7QHC

3358. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 21:21:02 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4043a956$1_2@corp.newsgroups.com>
Source record: 99180

Dave wrote:
> have you guys read this one yet?
>
> www.qsl.net/w9dmk/MPTT.pdf

Yes, as a matter of fact, I have. It tends to support my argument
with Jeff Anderson, wa6ahl, on this newsgroup from about a decade
ago, but is much more thorough and eloquent than I ever could be.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3359. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 21:26:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4043aab1_2@corp.newsgroups.com>
Source record: 99181

Tam/WB2TT wrote:
> Is that measured or calculated?

It is the result of EZNEC simulation. On 75m, I run a 130 ft. dipole fed
with 1/2WL of 450 ohm ladder-line. Those figures are copied directly from
EZNEC and agree virtually perfectly with my measured bandwidth measurements.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3360. Re: s9 noise problem related to position of antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 21:30:01 UTC
From: Nomen Nescio <nobody@dizum.com>
Message-ID: <98d7a53bd7f243c039dcdcae09f69993@dizum.com>
Source record: 99182

In article <_sC0c.59794$aH3.1845765@bgtnsc04-news.ops.worldnet.att.net>
"Jim Chumbley" <jamesfchumbley@att.net> wrote:

HV lines from power companies are a very common source of noise. It's much easier to isolate this as the problem if you have a directional ant. I had the problem, isolated it at 60 degrees to a pole, company found a bad insulator. Usually companies are eager to get their problems solved because the faulty equipment is costing them money as well as noise to you. If you think this the problem and no directional ant, try a portable radio tuned to an empty freq. Walk around and listen.

3361. meander line coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 21:31:48 UTC
From: mountain352@netscape.net
Message-ID: <25f3b535.0403011331.c119564@posting.google.com>
Source record: 99183

I'm looking for information on how a meander line coil works,
specifically how each of the physical dimensions affects the response.
My interest is the result of my interest in constructing an antenna
like that shown at:

http://www.guerrilla.net/reference/antennas/2ghz_collinear_omni_lowpwr/
802.11 2.4Ghz Low-Power 5dBi Vertical Collinear Antenna

Reading my ARRL antenna book the meander line coil is obviously
functioning as the 1/2 wavelength phasing stub between the collinear
elements, thus the 1/4 wavelength criteria stated in the above page.
My Heathkit "Electronics Learning DIctionary" defines meander line
as:

"A transmission-line matching section the electrical length of which
is dependent on frequency. The characteristics of a meander line are
detirmined primarily by the width of the structure, the spacing
between adjacent turns, and the angle of the line with respect to the
ground plane. If the turns have sufficient separation that there is no
space coupling between adjacent turns, the meander line becomes a
simple length of transmission line."

That's all the information I can find on these things. Everything else
appears to be aimed at using meander lines as antennas. From what I
know that is exactly the thing that I *don't* want this section of the
antenna to do.

So, does anyone know where I can find more information on how this
thing works and what I need to be careful about in constructing them?
Any other pointers or information would be appreciated.

BTW, I have an engineering background (computer engineering), so I'm
not completely clueless. But nand/nor gates didn't teach me a lot
about antennas.

Thanks in advance for any help you all can offer.
Glenn Pavlovic

3362. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 21:46:15 UTC
From: richardharrison@webtv.net
Message-ID: <7878-4043AF27-493@storefull-3258.bay.webtv.net>
Source record: 99184

Dave wrote:
"Have you guys read this one yet?"

I can`t read pdf.

I learned about maximum power transfer in the 1940`s and it hasn`t changed.

Terman says in his 1955 edition on page 76:

"Alternatively, a load impedance may be matched to a source of power in such a way as to make the power delivered to the load a maximum. The power delivered to the load under these conditions is termed "available power" of a power source.

This is accomplished by making the load impedance the conjugate of the generator impedance as defined by Thevenin`s theorem."

Anything else I need to know is likely also clearly explained by Terman.

Best regards, Richard Harrison, KB5WZI

3363. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 22:23:56 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <0KO0c.61906$aH3.1897912@bgtnsc04-news.ops.worldnet.att.net>
Source record: 99185

What a load of crap!

The only difficulty in the MPTT occurs when some folks create new definitions and new constraints that are not shared by others in the discussion. Allowing the problem to float at will means that the solutions will float as well.

The longstanding MPTT argument in amateur radio circles is not really about power transfer and conjugate matching. The argument is typically about what happens to the source impedance under varying load conditions.

Steam engines? Gear boxes? Yeah, sure, they help a lot.

73,
Gene
W4SZ

Cecil Moore wrote:
> Dave wrote:
>
>> have you guys read this one yet?
>>
>> www.qsl.net/w9dmk/MPTT.pdf
>
>
> Yes, as a matter of fact, I have. It tends to support my argument
> with Jeff Anderson, wa6ahl, on this newsgroup from about a decade
> ago, but is much more thorough and eloquent than I ever could be.

3364. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 22:36:46 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <c20dtk$1nttbj$1@ID-175933.news.uni-berlin.de>
Source record: 99186

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:7878-4043AF27-493@storefull-3258.bay.webtv.net...

> I can`t read pdf....

Amazing. Are you incapable of downloading and using the free PDF Reader
from the Acrobat website???

3365. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 23:17:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <11h740hh9936ljjoopprgpst62j358gp9r@4ax.com>
Source record: 99187

On Mon, 1 Mar 2004 16:36:46 -0600, "Richard Fry" <rfry@adams.net>
wrote:

>"Richard Harrison" <richardharrison@webtv.net> wrote in message
>news:7878-4043AF27-493@storefull-3258.bay.webtv.net...
>
>> I can`t read pdf....
>____
>
>Amazing. Are you incapable of downloading and using the free PDF Reader
>from the Acrobat website???
>

Richard subscribes to WebTV.

73's
Richard Clark, KB7QHC

3366. Re: meander line coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-01 23:32:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <aeh740l80dd0i3crh8rtf0luravc043iff@4ax.com>
Source record: 99188

On 1 Mar 2004 13:31:48 -0800, mountain352@netscape.net (Glenn
Pavlovic) wrote:
>So, does anyone know where I can find more information on how this
>thing works and what I need to be careful about in constructing them?
>Any other pointers or information would be appreciated.

Hi Glenn,

Meander is a pseudonym for Hocus-Pocus. The designer did what it took
to achieve the desired result. Being unable to describe it
coherently, the fall back position is to call it a Meander Line. In
this regard, construction details should be followed without question
or substitution to obtain the same results, maybe.

Meander typically suggests the largest antenna in the smallest box
without degrading its results over a simpler design (which has every
chance of being equally successful). You may, in the course of
investigation, find any amount of rationale - much of which presumes
you believe in the boogey-man. If you want examples of the mother of
all meanders, consult:
http://www.qsl.net/kb7qhc/antenna/fractal/index.htm

73's
Richard Clark, KB7QHC

3367. WTB: Yaesu rotor plug & Tennadyne t31

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 01:26:44 UTC
From: Billy <billy@cmaaccess.com>
Message-ID: <4043e9d8$0$32595$2c56edd9@news.cablerocket.com>
Source record: 99189

Wanted: I need a plug for the back of a yaesu 800sdx rotor control. It is the plug with 4 horizontal & 2 vertical terminals on it. If you know where I can get one of these, or if you have one, please email me direct with price or information. I am also looking for a tennadyne t 31 uhf/vhf log periodic antenna. I will take either the t 31 or the t 28. Also if you have one of these please email with condition and price shipped to 71075. Please email ###billy@cmaaccess.com. Remove the ### for spam purposes.

3368. Re: Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 01:45:11 UTC
From: aa2t@arrl.net
Message-ID: <olp740tjnfvpn4t7grqgmhbtj510r77d9l@4ax.com>
Source record: 99190

I have had good luck with the superloop 40 from radioworks which is a
bottom fed vertical delta loop. Contrary to Cebik, I find that it's
about 1/2 S unit better on 40M than my dipole, although the vertical
section is a stub and makes it not exactly a delta loop on 40M..
fyi
JR AA2T

On 28 Feb 2004 21:42:38 GMT, bcolenso@aol.com..nospam (Bob Colenso)
wrote:

>Hi all:
>
>I've been thinking about making a vertically polarized Delta Loop for 40m.
>I've seen articles on the internet having the feed point at one of the lower
>corners of the triangle for vertical polorization, others having the feed point
>on one of the sides, 1/4 wl from the top. Does it make any difference if its
>sloping (within reason) or does it need to be perpendicular to the ground?
>
>Anyone here have any experience here?
>
>
>Thanks,
>
>Bob--KD8WU
>
>U of M
>GO BLUE!!
>
>GOD, GUNS, and GUTS
>PROTECT AMERICA

3369. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 01:48:01 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <1047pqucin1nk03@corp.supernews.com>
Source record: 99191

I just get an advertisement when I click on your link. Mac N8TT

--
J. Mc Laughlin - Michigan USA

"Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
news:403fb196.2548764@news.crosslink.net...
> On Wed, 25 Feb 2004 14:46:42 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> snip....
>
> Dear Steve,
>
> You may find the information in this article to be of interest
> relative to the efficiency in a conjugate match situation.
>
> http://www.qsl.net/w9dmk/ObservationsOnMPTT.htm
>
> 73,
>
> Bob

3370. Re: Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 02:11:14 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <i3r740142cokb28leqhlp456cer4t3epko@4ax.com>
Source record: 99192

On Mon, 1 Mar 2004 11:56:38 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Dave, KC1DI wrote:
>"You would be better off mounting it in the Horizontal plan(e)...(at
>other than 40 m)
>
>Performance versus polarization depends on soil loss in the antenna
>area.
>
>Over poor earth, horizontal polarization is better for take-off angles
>above 35 degrees. Below 35 degrees, vertical polarization is a little
>better, but not much, maybe 2dB.
>
>Over good earth, vertical antennas work much better than they do over
>poor earth. For take-off angles below 30 degrees, the large loop in the
>vertical plane may be 10 dB better than a large horizontal loop.
>
>Antenna height tends to lower take-off angle.
>
>If you want expert testimony, see "ON4UN`s "Low-Band DXing" page 10-9.
>ARRL is the publisher.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

I agree with what you've said but I think you missed my point.. above
the fundamental frequency a loop is better in the horizontal plane,, a
vertical plan loop that is 2 wavelength or more tends to become more
and more of a high angle radiator as you move up in frequency.

what you have stated above is correct for a 1 wave horizontal loop in
that case i would agree that a vertical loop would be perfered.

in any event try them both and make your own conclusions.

73 Dave kc1di

3371. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 02:16:25 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4043ee91$1_2@corp.newsgroups.com>
Source record: 99193

Richard Harrison wrote:
> Dave wrote:
> "Have you guys read this one yet?"
>
> I can`t read pdf.

For anyone who wants it, the free pdf reader SW is available at:

http://www.adobe.com/products/acrobat/readstep2.html
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3372. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 02:52:27 UTC
From: richardharrison@webtv.net
Message-ID: <8667-4043F6EB-393@storefull-3252.bay.webtv.net>
Source record: 99194

Mac, N8TT wrote:
"I just get an advertisement when I click on your link."

I followed a trail of clicks through a study on matching.

Surprise, Surprise! The paper concludes that the maximum power transfer theorem works, lossless resistance exists, and a conjugate match can prevail with less than 50% of the energy dissipated in the source.

Mechanical models are considered in addition to electrical models. A point is made that limiting the power delivered by the source (prime mover) is often a good way to deliver dissipationless resistance for efficient maximum power transfer.

Richard Clark and I were instructed on dissipationless resistance for maximum power transfer impedance matching by a foremost practioner of the science. The scientist who built a high-powered, highly efficient unipolar generator to specification for NASA, tried to give us a simpler model to understand. It was a waterwhell driving a conventional electrical generator. After too long a time, the light finally dawned upon me. I`m now a true believer. Problem is, I`m a recent convert and that`s the worst kind.

Best regards, Richard Harrison, KB5WZI

3373. Re: meander line coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 03:29:05 UTC
From: richardharrison@webtv.net
Message-ID: <8668-4043FF81-135@storefull-3252.bay.webtv.net>
Source record: 99195

Glenn Pavlovic wrote:
"Any other pointers or information would be appreciated,"

Glenn Miller, I think his square moniker was Alton Gllenn Miller was born 100 years ago today. He lucked out with a weekly program on radio for his band. It was "The Chesterfield Supper Club" advertising cigarettes. His mother was a member in good standing of The Women`s Christian Temberance Union and an arch enemy of tobacco as well. When mom met with the other ladies, they chided her about Glenn`s new sponsor. Mom said that of course nobody should smoke, but if they were adicted, they should be sure their cigarettes were Chesterfield cigarettes.

I lived in Portugal for a number of years and traveled several times across southern Spain to go and return between Lisbon and Seville. I gained a new respect for the word "meander" after crossing and recrossing the Rio Meander countless times.

Best regards, Richard Harrison, KB5WZI

3374. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 04:13:53 UTC
From: Mitch Dickson <mitch@volstate.net>
Message-ID: <10482f8g5bt9165@corp.supernews.com>
Source record: 99196
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

LMAO! Why thank you BT, and it's nice to know that after what I wrote in that post, the only thing you could find to bitch about was a mispelled word :) Cut a little close to the quick did it? HEHEHE!

--... ...--

.- . ....- -.-- .--

Perhaps some kind old general will take pity and interpret the above for you :)

Mitch
AE4YW

--
"Come by and sit a spell with me at www.volstate.net/~mitch/ "

mitch@volstate.net
"Bill Turner" <noway@nohow.com> wrote in message
news:s5244058tij54ofc2t6q01hc0b513qm3f2@4ax.com...
> On Sun, 29 Feb 2004 09:30:30 -0500, "Mitch Dickson" <mitch@volstate.net>
> wrote:
>
> >Isn't that "Special"!!!!!! I can hardly wait to be in the middle of a
good
> >QRP QSO and hear some CBer who thinks he is a ham blair in with "Is the
> >channel in use?"
>
> ____
>
> The word is "blare". Ignorance can be found with or without a ham
> license.
>
> --
> BT

3375. Re: Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 04:29:36 UTC
From: richardharrison@webtv.net
Message-ID: <14709-40440DB0-424@storefull-3253.bay.webtv.net>
Source record: 99197

Bob, KD8WU wrote:
"I`ve had good luck with the superloop 40 from radioworks which is a bottom fed vertical delta loop."

I`m ignorant of the superloop 40 but am guessing it is a small multiturn loop for enhancing reception only. If so, the following applies. If the superloop 40 is a full wavelength in circumference, I`m all wet.

"Delta loop" usually implies more than a triangular shape. It usually means a large loop, often an entire wavelength in circumference.

When the circumference of a loop is a small fraction of a wavelength, current throughout a turn in the loop is nearly in the same phase and magnitude. This is responsible for a null in the loop`s response perpendicular to the plane of the loop. Loop response is in all the directions which are in the plane of the loop.

Not so with the large loop, delta, quad, or circular. These large loops have a response perpendicular to the plane of the loop which allows loop elements to be stacked like the rods in a Yagi so that a cmbination called a "Quagi" can be built.

A small loop with one or 40 turns is a different animal from a large loop.

Best regards, Richard Harrison, KB5WZI

3376. Re: Stage Efficiency Was: Antenna efficiency Was: What is impedance (Z)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 05:25:56 UTC
From: w9dmk@crosslink.net
Message-ID: <40441a4a.36083775@news.crosslink.net>
Source record: 99198

On Mon, 1 Mar 2004 20:48:01 -0500, "J. McLaughlin" <JCM@Power-Net.Net>
wrote:

>I just get an advertisement when I click on your link. Mac N8TT

Sorry, a later revision has been posted and it has different name.

Try this:
http://www.qsl.net/w9dmk/MPTT.pdf

3377. Re: meander line coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 05:36:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o578401ntpf4nli6otgbh10ufrd65g181l@4ax.com>
Source record: 99199

On Mon, 1 Mar 2004 21:29:05 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

from Glenn to meander... I was wondering how you were going to pull
that one off. ;-)

3378. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 05:41:34 UTC
From: w9dmk@crosslink.net
Message-ID: <40441d8f.36921360@news.crosslink.net>
Source record: 99200

On Mon, 01 Mar 2004 22:23:56 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>What a load of crap!
>
>The only difficulty in the MPTT occurs when some folks create new
>definitions and new constraints that are not shared by others in the
>discussion. Allowing the problem to float at will means that the
>solutions will float as well.
>
>The longstanding MPTT argument in amateur radio circles is not really
>about power transfer and conjugate matching. The argument is typically
>about what happens to the source impedance under varying load conditions.
>
>Steam engines? Gear boxes? Yeah, sure, they help a lot.

That's a fair question, Gene - what does happen to the source
impedance under varying load conditions?

While you're at it, could you please explain how you would separate
the issues of maximum power transfer and conjugate matching from the
question of what happens to the source impedance under varying load
conditions?

I have no problem in supplying copies of the article to anyone who
requests a particular format by e-mail - available choices are pdf,
html, or Word for Windows 97 or 2003. The complete file is
approximately 1 MB in any of the formats.

73,
Bob

3379. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 07:43:04 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <JOGdnTcSYuJZp9ndRVn-sA@comcast.com>
Source record: 99201

Web TV doesn't do PDF and can't run the software.

"Richard Fry" <rfry@adams.net> wrote in message
news:c20dtk$1nttbj$1@ID-175933.news.uni-berlin.de...
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:7878-4043AF27-493@storefull-3258.bay.webtv.net...
>
> > I can`t read pdf....
> ____
>
> Amazing. Are you incapable of downloading and using the free PDF Reader
> from the Acrobat website???
>
>

3380. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 08:10:41 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403020010.54cf6f9@posting.google.com>
Source record: 99202

richardharrison@webtv.net (Richard Harrison) wrote in message So, Reg asks an appropriate
> question: "Of what use is it?"
>
> Best regards, Richard Harrison, KB5WZI

weeeellll, I always liked the "Q multipliers" that drake used to pair up with some of their receivers. IE: drake 2B, 2C. I have a drake 2C and 2CQ. Worked very well for peaking up weak CW sigs. I used to be able to take an S1 signal, and with some fine tuning, peak it up to nearly S9. Some ringing of course, but still pretty impressive..They didn't use those on the 4 line though for some reason...I also have an old R4. One of the first made in 1965. Serial 0058. All my drakes, I've had for years, and are pretty much retired, except for special occasions...Like when I get bored with the new fangled stuff...:/ Every time I turn on one of the drakes, I find new shot electrolytics that pop up. All the caps are drying out over time. I'll replace em, and think all is well, and next time I turn it on, more have gone south.. MK

3381. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 08:11:42 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c21fjv$6gp4$1@news3.infoave.net>
Source record: 99203

It won't run on a VIC-20

"Richard Fry" <rfry@adams.net> wrote in message
news:c20dtk$1nttbj$1@ID-175933.news.uni-berlin.de...
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:7878-4043AF27-493@storefull-3258.bay.webtv.net...
>
> > I can`t read pdf....
> ____
>
> Amazing. Are you incapable of downloading and using the free PDF Reader
> from the Acrobat website???
>
>

3382. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 08:32:25 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403020032.18f0da00@posting.google.com>
Source record: 99204

<w4udx@bellsouth.net> wrote in message
news:<Ckx0c.68404$Ve2.524@bignews6.bellsouth.net>...
> > put up the longest dipole you can as high as you can and load it with a
> > tuner... that is the easiest and fastest way. if you have an 80m dipole
> > that will work ok to try it out.
>
> Unless you have a legal-limit tuner, or are going to use QRP power levels, I
> would advise against that.
> If the dipole is coax fed and is 80M 1/2 wavelength, at 100 watts out there
> is going to be some crazy-high RF voltages inside that tuner. If it's an MFJ
> 300 watt tuner, more than likely it's going to arc like a welder.
> Feeding the dipole with ladder-line is a different story......

Not much. It's still a pretty bad scenario even with ladder line, on
say a T net tuner.
If all a person can do is use a 80 dipole, it usually best to short
the feedline together, or just feed the center pin, and feed the whole
thing as a vertical using the tuner to match. Will usually work much
better on 160m, than feeding a 80 dipole normally. You'll hear the
noise/signal level pop way up when you feed it this way compared to as
a half dipole with all the resulting tuner loss. MK

3383. Re: WTB: Yaesu rotor plug & Tennadyne t31

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 11:46:01 UTC
From: Bill J <w3fi@nwboronet.com>
Message-ID: <gs_0c.1$th4.813@eagle.america.net>
Source record: 99205

If you get any word on the Yaesu plug, how bout sharing here. I need one also.

Billy wrote:
> Wanted: I need a plug for the back of a yaesu 800sdx rotor control. It is
> the plug with 4 horizontal & 2 vertical terminals on it. If you know where
> I can get one of these, or if you have one, please email me direct with
> price or information. I am also looking for a tennadyne t 31 uhf/vhf log
> periodic antenna. I will take either the t 31 or the t 28. Also if you
> have one of these please email with condition and price shipped to 71075.
> Please email ###billy@cmaaccess.com. Remove the ### for spam purposes.
>
>

3384. Re: Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 13:36:19 UTC
From: Larry Moss <larrymoss@citcom.net>
Message-ID: <c222kt$6uhj$1@news3.infoave.net>
Source record: 99206

All the theory is fine, but the bottom line on the superloop 80 or 40 in the vertical plan is that they work and very well at that. Larry
"Richard Harrison" <richardharrison@webtv.net> wrote in message news:14709-40440DB0-424@storefull-3253.bay.webtv.net...
> Bob, KD8WU wrote:
> "I`ve had good luck with the superloop 40 from radioworks which is a
> bottom fed vertical delta loop."
>
> I`m ignorant of the superloop 40 but am guessing it is a small multiturn
> loop for enhancing reception only. If so, the following applies. If the
> superloop 40 is a full wavelength in circumference, I`m all wet.
>
> "Delta loop" usually implies more than a triangular shape. It usually
> means a large loop, often an entire wavelength in circumference.
>
> When the circumference of a loop is a small fraction of a wavelength,
> current throughout a turn in the loop is nearly in the same phase and
> magnitude. This is responsible for a null in the loop`s response
> perpendicular to the plane of the loop. Loop response is in all the
> directions which are in the plane of the loop.
>
> Not so with the large loop, delta, quad, or circular. These large loops
> have a response perpendicular to the plane of the loop which allows loop
> elements to be stacked like the rods in a Yagi so that a cmbination
> called a "Quagi" can be built.
>
> A small loop with one or 40 turns is a different animal from a large
> loop.
>
> Best regards, Richard Harrison, KB5WZI
>

3385. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 15:37:25 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <VS11c.131388$hR.2497057@bgtnsc05-news.ops.worldnet.att.net>
Source record: 99207

Bob,

Sorry for the strong words, but the intent remains the same.

I don't know what happens to the source impedance when the load is
changed, because the system is undefined.

However, read carefully the definition at the beginning of your paper.

The Maximum Power Transfer Theorem:

The maximum power will be absorbed by one network from
another joined to it at two terminals, when the impedance of
the receiving network is varied, if the impedance looking into
the two networks at the junction are conjugates of each other
[1]
.
.
.
[1] W. L. Everitt, "Communication Engineering", McGraw-Hill, 1937

The maximum power transfer theorem describes the impact from change of
the load impedance. It is not the Grand Unified Theory for all the
universe. If someone tries to expand this elegant concept to all sorts
of pathological cases then it is likely that confusion will ensue.

The MPTT analysis is straightforward if the problem is well defined. The
ongoing argument in amateur radio circles is about the source
characteristics of amplifiers and tank circuits. The MPTT does not
address that argument, but rather it is a victim of the silliness.

Including the down-home touch of steam engines adds nothing to the
technical content.

73,
Gene
W4SZ

Robert Lay W9DMK wrote:
> On Mon, 01 Mar 2004 22:23:56 GMT, Gene Fuller <W4SZzzzzzz@att.net>
> wrote:
>
>
>>What a load of crap!
>>
>>The only difficulty in the MPTT occurs when some folks create new
>>definitions and new constraints that are not shared by others in the

>>discussion. Allowing the problem to float at will means that the
>>solutions will float as well.
>>
>>The longstanding MPTT argument in amateur radio circles is not really
>>about power transfer and conjugate matching. The argument is typically
>>about what happens to the source impedance under varying load conditions.
>>
>>Steam engines? Gear boxes? Yeah, sure, they help a lot.
>
>
> That's a fair question, Gene - what does happen to the source
> impedance under varying load conditions?
>
> While you're at it, could you please explain how you would separate
> the issues of maximum power transfer and conjugate matching from the
> question of what happens to the source impedance under varying load
> conditions?
>
> I have no problem in supplying copies of the article to anyone who
> requests a particular format by e-mail - available choices are pdf,
> html, or Word for Windows 97 or 2003. The complete file is
> approximately 1 MB in any of the formats.
>
> 73,
> Bob

3386. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 15:42:14 UTC
From: richardharrison@webtv.net
Message-ID: <20457-4044AB56-205@storefull-3254.bay.webtv.net>
Source record: 99208

Mark Keith, NM5K wrote:
"I always liked the "Q multipliers" that Drake used to pair up with some of their receivers."

I had a Hammarlund that included a Q multiplier to sharpen its response and it worked well too.

Reg asked what is useful in knowing what your antenna Q is?

Most antenna users do well without asking what the Q is. Antenna Q is the ratio of the energy the antenna is passing back and forth between its inductance and capacitance to the energy the antenna is losing to both radiation and conversion to heat. An antenna can have a given Q and be quite efficient if most of the energy it is losing is to radiation, our desired end for the energy. With the same Q, the antenna can be very inefficient if most of the energy it is losing is to producing heat in and around the antenna. So knowledge of antenna Q alone is unsatisfactory.

Best regards, Richard Harroison, KB5WZI

3387. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 16:42:55 UTC
From: richardharrison@webtv.net
Message-ID: <20456-4044B98F-501@storefull-3254.bay.webtv.net>
Source record: 99210

Gene Fuller wrote:
"I don`t know what happens to the source impedance when the load is changed, because the system is undefined."

Yes. Maximum power transfer is accomplished by making the load impedance the conjugate of the generator impedance as defined by Thevenin`s theorem.

The value of the Thevinen impedance is that which might be measured by a generator`s open-circuit voltage devided by its short-circuit current. You don`t need to know the generator`s specifics other than, drop in the output voltage is proportional to the current delivered.

The current which flows in a linear load impedance connected to a Thevenin generator is the open-circuit voltage divided by the sum of the generator`s internal impedance and the load impedance. These may be complex impedances.

At maximum power transfer, internal and load impedances are equal in resistance and their reactances are conjugate (opposite and equal).

There is no requirement that resistance in either the generator or load be dissipative, and frequently, lossless resistance is a part of the generator impedance so that we can get maximum possible power into the load without losing 50% in the generator.

Best regards, Richard Harrison, KB5WZI

3388. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 16:45:15 UTC
From: w9dmk@crosslink.net
Message-ID: <4044b8ef.10486949@news.crosslink.net>
Source record: 99209

On Tue, 02 Mar 2004 15:37:25 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>Bob,
>
>Sorry for the strong words, but the intent remains the same.
>
>I don't know what happens to the source impedance when the load is
>changed, because the system is undefined.
>
>However, read carefully the definition at the beginning of your paper.
>
> The Maximum Power Transfer Theorem:
>
> The maximum power will be absorbed by one network from
> another joined to it at two terminals, when the impedance of
> the receiving network is varied, if the impedance looking into
> the two networks at the junction are conjugates of each other
> [1]
> .
> .
> .
> [1] W. L. Everitt, "Communication Engineering", McGraw-Hill, 1937
>
>The maximum power transfer theorem describes the impact from change of
>the load impedance. It is not the Grand Unified Theory for all the
>universe. If someone tries to expand this elegant concept to all sorts
>of pathological cases then it is likely that confusion will ensue.
>
>The MPTT analysis is straightforward if the problem is well defined. The
>ongoing argument in amateur radio circles is about the source
>characteristics of amplifiers and tank circuits. The MPTT does not
>address that argument, but rather it is a victim of the silliness.
>
>Including the down-home touch of steam engines adds nothing to the
>technical content.
Dear Gene,

No problem, I will try to understand where you're coming from.
Obviously, there have been some experiences in your tour of duty that
have caused you some heartburn - it happens with all of us.

Relative to your points about amplifiers, etc., I hope to have my
article on that topic available before the end of this month.
Actually, it has been "almost ready" for several days now, but there

are some things that need to "cook" awhile before I release it. As soon as you get into the details of a Class-B linear, you're up to your butt in alligators, not to mention all of the myths surrounding them and the matching problem. I'll do my best to keep it "on topic" - Hi!

73,
Bob

3389. Re: meander line coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 16:56:31 UTC
From: richardharrison@webtv.net
Message-ID: <20456-4044BCBF-503@storefull-3254.bay.webtv.net>
Source record: 99211

Richard Clark, KB7QHC wrote:
"---from Glenn to meander..."

Pardon the pun. A glen is ia valley. A meander is a river.

Best regards, Richard Harrison, KB5WZI

3390. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 17:58:19 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <bOudnQCD1otrV9ndRVn-jA@comcast.com>
Source record: 99212
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

I'm sure that he just put you off as a hopeless idiot, as did I.

"Mitch Dickson" <mitch@volstate.net> wrote in message
news:10482f8g5bt9165@corp.supernews.com...
> LMAO! Why thank you BT, and it's nice to know that after what I wrote in
> that post, the only thing you could find to bitch about was a mispelled
word
> :) Cut a little close to the quick did it? HEHEHE!

3391. hula hoop antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 18:09:38 UTC
From: stripy <yammy.r6@virgin.net>
Message-ID: <C541c.2638$sh4.458@newsfe1-win>
Source record: 99213

hi i have read in one of the old ARRL books about a hula hoop antenna that
only stands about 3 inches high on 10 mters but works like a full size
dipole has anyone built one and if so how did it work
many thanks
dave

3392. Re: hula hoop antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 18:34:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c22k35ilv1@sparta.btinternet.com>
Source record: 99214

It worked fine. But you forgot to say the tuning capacitor with its connecting wires was 15 feet long.

3393. Re: Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 19:21:10 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <rfn940d95ph3f72iv6dhaj04dfop648fln@4ax.com>
Source record: 99215

On Mon, 1 Mar 2004 22:29:36 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Bob, KD8WU wrote:
>"I`ve had good luck with the superloop 40 from radioworks which is a
>bottom fed vertical delta loop."
>
>I`m ignorant of the superloop 40 but am guessing it is a small multiturn
>loop for enhancing reception only. If so, the following applies. If the
>superloop 40 is a full wavelength in circumference, I`m all wet.
>
>"Delta loop" usually implies more than a triangular shape. It usually
>means a large loop, often an entire wavelength in circumference.
>
>When the circumference of a loop is a small fraction of a wavelength,
>current throughout a turn in the loop is nearly in the same phase and
>magnitude. This is responsible for a null in the loop`s response
>perpendicular to the plane of the loop. Loop response is in all the
>directions which are in the plane of the loop.
>
>Not so with the large loop, delta, quad, or circular. These large loops
>have a response perpendicular to the plane of the loop which allows loop
>elements to be stacked like the rods in a Yagi so that a cmbination
>called a "Quagi" can be built.
>
>A small loop with one or 40 turns is a different animal from a large
>loop.
>
>Best regards, Richard Harrison, KB5WZI

Richard the Super loop is a full wave loop on the lowest operating
frequency .. IE Super loop 40 is a full wave 40 Meter delta loop.. the
difference is that it has a shorted stup opposet the fedpoint which
present a high impedence on twice the fundamental frequecy which
effectively opens the loop on bands above the fundamental so that it
acts more like a Bi-Square antenna on twice the frequency of design.

73 Dave KC1DI

3394. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 19:37:49 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c22nqg$1onl5u$1@ID-225206.news.uni-berlin.de>
Source record: 99216

From the design side, MPTT is defined at an interface, and minimizes
"reflected power" at that interface, and that is it.

The other items about matching are also quite important, such as stability,
loading, impedance transfer (both directions), bandwidth, Qs, loaded Qs etc.
But that is Not MPTT. There is a tradeoff between these, if one can also
obtain mptt, great, but close is good too.

mptt is just one of several parameters needed to optimize a match. At times
there are too many unknowns and the matching is experimental (class C)
.....
.....
"Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
news:40441d8f.36921360@news.crosslink.net...
> On Mon, 01 Mar 2004 22:23:56 GMT, Gene Fuller <W4SZzzzzzz@att.net>
> wrote:
>
> >What a load of crap!
> >
> >The only difficulty in the MPTT occurs when some folks create new
> >definitions and new constraints that are not shared by others in the
> >discussion. Allowing the problem to float at will means that the
> >solutions will float as well.
> >
> >The longstanding MPTT argument in amateur radio circles is not really
> >about power transfer and conjugate matching. The argument is typically
> >about what happens to the source impedance under varying load conditions.
> >
> >Steam engines? Gear boxes? Yeah, sure, they help a lot.
>
> That's a fair question, Gene - what does happen to the source
> impedance under varying load conditions?
>
> While you're at it, could you please explain how you would separate
> the issues of maximum power transfer and conjugate matching from the
> question of what happens to the source impedance under varying load
> conditions?
>
> I have no problem in supplying copies of the article to anyone who
> requests a particular format by e-mail - available choices are pdf,
> html, or Word for Windows 97 or 2003. The complete file is
> approximately 1 MB in any of the formats.
>
> 73,
> Bob

3395. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 19:47:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c22oda$sd5$1@sparta.btinternet.com>
Source record: 99217

"John Smith" said -
> MPTT is defined at an interface, and minimizes
> "reflected power" at that interface, and that is it.

==========

Indeed it is. R+jX one way and R-jX the other.

Why the vast amount of palaver and bickering about such an obvious and
elementary notion defeats the imagination.

3396. Re: Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 19:59:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4044e7bf$1_5@corp.newsgroups.com>
Source record: 99218

KC1DI wrote:
> Richard the Super loop is a full wave loop on the lowest operating
> frequency .. IE Super loop 40 is a full wave 40 Meter delta loop.. the
> difference is that it has a shorted stup opposet the fedpoint which
> present a high impedence on twice the fundamental frequecy which
> effectively opens the loop on bands above the fundamental so that it
> acts more like a Bi-Square antenna on twice the frequency of design.

Dave, please turn on your spell checker.
Does "stup opposet" mean "stub opposite"?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3397. Re: Delta Loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 20:09:13 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <4eq940h74c5arm13luggukhuf8sdgu1lu5@4ax.com>
Source record: 99069

On Tue, 02 Mar 2004 13:59:29 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>KC1DI wrote:
>> Richard the Super loop is a full wave loop on the lowest operating
>> frequency .. IE Super loop 40 is a full wave 40 Meter delta loop.. the
>> difference is that it has a shorted stup opposet the fedpoint which
>> present a high impedence on twice the fundamental frequecy which
>> effectively opens the loop on bands above the fundamental so that it
>> acts more like a Bi-Square antenna on twice the frequency of design.
>
>Dave, please turn on your spell checker.
>Does "stup opposet" mean "stub opposite"?

Thanks Cecil it does me stub ! not Stup Sorry.
73 Dave ...

3398. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 20:11:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4044ea9e$1_5@corp.newsgroups.com>
Source record: 99070

Reg Edwards wrote:
> Indeed it is. R+jX one way and R-jX the other.
>
> Why the vast amount of palaver and bickering about such an obvious and
> elementary notion defeats the imagination.

Reg, you are in a room with a transmission line passing through it.
You measure all voltages, currents, and powers. How do use your "obvious
and elementary notions" to tell if the transmission line is conjugately
matched or not? How do you measure the impedance looking toward a typical
amateur radio transmitter without changing the very thing you are trying
to measure? Many have tried and many have failed.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3399. Re: meander line coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 20:23:34 UTC
From: mountain352@netscape.net
Message-ID: <25f3b535.0403021223.aa2c117@posting.google.com>
Source record: 99071

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<o578401ntpf4nli6otgbh10ufrd65g181l@4ax.com>...
> On Mon, 1 Mar 2004 21:29:05 -0600 (CST), richardharrison@webtv.net
> (Richard Harrison) wrote:
>
> from Glenn to meander... I was wondering how you were going to pull
> that one off. ;-)

science and humor in one place, Who knew?<g>

So does that make it techumor?...Okay so I couldn't make a living as a
stand up comic.

Thanks for the help. I shall attempt to follow the directions
slavishly. And then ignore them and do what seems to work!

Glenn

3400. Re: cobwebb

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 20:39:41 UTC
From: Martin <admin@127.0.0.1>
Message-ID: <c22rgg$ej0$1$8300dec7@news.demon.co.uk>
Source record: 99073

"David Browne" <dddd@ddd> wrote in message
news:20040228155705.179$Wv@news.newsreader.com...
> hi has any one used this ant, will it tune to 40 meters using atu
> thanks dave browne
>
>

The aerial is basically a nest of 5 dipoles (one for each
band 20m, 17m, 15m, 12m and 10m) bent round on them
selves in to a square and the feed is through a balan /
matching system it does not have a 40m element.
But you could try tuning it to see what results you get or
extend the spreaders and add you own 40m element.

you could ask the design for advice also - G3TPW
Steve Webb. Do a search and visit the "WEBB" site .... Hi Hi

73 Martin

3401. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 20:40:02 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c22rf8$1p4rse$1@ID-225206.news.uni-berlin.de>
Source record: 99072

Check for reflected power in either direction.
If none, then it is conjugally matched exactly.
If it is about -14 dB down, that is good and close enough.

One can try to measure Tx output Z (looking into Tx) and then the Z looking
backup the antenna line, and try matching the two as a start,
but reflected power quicker, faster, more accurate.
(also I agree with you in trying to measure Tx output Z (looking into the
output)
tried and got a mess many times,...)

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4044ea9e$1_5@corp.newsgroups.com...
> Reg Edwards wrote:
> > Indeed it is. R+jX one way and R-jX the other.
> >
> > Why the vast amount of palaver and bickering about such an obvious and
> > elementary notion defeats the imagination.
>
> Reg, you are in a room with a transmission line passing through it.
> You measure all voltages, currents, and powers. How do use your "obvious
> and elementary notions" to tell if the transmission line is conjugately
> matched or not? How do you measure the impedance looking toward a typical
> amateur radio transmitter without changing the very thing you are trying
> to measure? Many have tried and many have failed.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3402. Re: hula hoop antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 22:23:03 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <bP71c.30043$6K.21002@nwrddc02.gnilink.net>
Source record: 99074

"stripy" <yammy.r6@virgin.net> wrote in message
news:C541c.2638$sh4.458@newsfe1-win...
> hi i have read in one of the old ARRL books about a hula hoop antenna that
> only stands about 3 inches high on 10 mters but works like a full size
> dipole has anyone built one and if so how did it work
> many thanks
> dave
>
Well, the first part is correct- the DDRR, but as far as working as well as
a full length dipole- that remains in the realm of the marketing folks.

Dale W4OP

3403. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 22:47:10 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <O981c.65632$aH3.2011520@bgtnsc04-news.ops.worldnet.att.net>
Source record: 99075

Cecil,

Are you suggesting that a steam engine is needed in addition to "obvious
and elementary notions"?

Let's see, how about a nice triple expansion engine fed from a Scotch
boiler fueled with the finest Welsh coal. Don't forget to raise steam
slowly, and make sure you don't tie down the safety valve.

8-)

73,
Gene
W4SZ

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> Indeed it is. R+jX one way and R-jX the other.
>>
>> Why the vast amount of palaver and bickering about such an obvious and
>> elementary notion defeats the imagination.
>
>
> Reg, you are in a room with a transmission line passing through it.
> You measure all voltages, currents, and powers. How do use your "obvious
> and elementary notions" to tell if the transmission line is conjugately
> matched or not? How do you measure the impedance looking toward a typical
> amateur radio transmitter without changing the very thing you are trying
> to measure? Many have tried and many have failed.

3404. 2/6meter bigwheel antennas,operator where?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 23:06:14 UTC
From: cilorentzson@devtex.net
Message-ID: <pj4a40dr0s1rhuk53ngosfta42i0ahcn44@4ax.com>
Source record: 99076

I am looking for the ham operator that sells bigwheel horz 2/6 meter
loop antennas at the "HamCom and Belton" hamfests. Would appreciate any
and all input. thanks in advance, cl 73
"remove 'z' from email address

3405. Re: meander line coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 23:22:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cl5a40hog0r6g3tq5qm4ik0to9edkmpieo@4ax.com>
Source record: 99077

On 2 Mar 2004 12:23:34 -0800, mountain352@netscape.net (Glenn
Pavlovic) wrote:
>Thanks for the help. I shall attempt to follow the directions
>slavishly. And then ignore them and do what seems to work!
>
>Glenn

Hi Glenn,

Good luck. Things are small enough that you should have some fun
along the way.

73's
Richard Clark, KB7QHC

3406. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 23:35:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rv5a4097k46gb146f4custfa86ssod5f7j@4ax.com>
Source record: 99078

On Tue, 2 Mar 2004 14:40:02 -0600, "John Smith" <pani@yahoo.com>
wrote:
>Check for reflected power in either direction.

Hi John,

You would be surprised how hard that is for some, especially when an argument about the direction of current flow becomes part of the turmoil.

>If none, then it is conjugally matched exactly.

Still too simple, not enough gristle to chew on. ;-)

>If it is about -14 dB down, that is good and close enough.

In three sentences you've said enough to resolve the matter. But not enough to end the debate....

73's
Richard Clark, KB7QHC

3407. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-02 23:50:29 UTC
From: jder8745@aol.com
Message-ID: <20040302185029.19482.00000875@mb-m16.aol.com>
Source record: 99079

Well sed!

Jack K9CUN

3408. Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 00:56:57 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <t3a1c.18624$aT1.15477@newsread1.news.pas.earthlink.net>
Source record: 99081

"Lossless resistance?" Would that be zero resistance,
or perhaps a negative resistance, as in the active part of
a tunnel diode's V-I characteristic?

I am a career EE, with a couple of graduate EE degrees;
and this is something entirely new to me. Could you explain
this concept, and/or provide some references?

Thanks, Ed

3409. Re: hula hoop antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 01:05:36 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <Hv6dnWDEzvMKvNjdRVn-gQ@ctc.net>
Source record: 99080

> > hi i have read in one of the old ARRL books about a hula hoop antenna
that
> > only stands about 3 inches high on 10 mters but works like a full size
> > dipole has anyone built one and if so how did it work
> > many thanks
> > dave
> >
> Well, the first part is correct- the DDRR, but as far as working as well
as
> a full length dipole- that remains in the realm of the marketing folks.

Not to mention that unless you remotely tune the capacitor it is very narrow
banded.

3410. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 01:08:56 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403021708.4827083f@posting.google.com>
Source record: 99082

nm5k@wt.net (Mark Keith) wrote in message snip

>
> weeeellll, I always liked the "Q multipliers" that drake used to pair
> up with some of their receivers. IE: drake 2B, 2C. I have a drake 2C
> and 2CQ. Worked very well for peaking up weak CW sigs. I used to be
> able to take an S1 signal, and with some fine tuning, peak it up to
> nearly S9. Some ringing of course, but still pretty impressive..They
> didn't use those on the 4 line though for some reason...I also have an
> old R4. One of the first made in 1965. Serial 0058. All my drakes,
> I've had for years, and are pretty much retired, except for special
> occasions...Like when I get bored with the new fangled stuff...:/
> Every time I turn on one of the drakes, I find new shot electrolytics
> that pop up. All the caps are drying out over time. I'll replace em,
> and think all is well, and next time I turn it on, more have gone
> south.. MK

Yes Mark, there is no getting away from it, peaking the Q increases
the amplitude and it does this by using a parallel circuit. If it did
some good for you in the radio then it should also be better in the
antenna.It would still be impressive. All radio designers ask for a
filter to be put in the line as early as possible and surely there
must be a good reason for saying that. Yet some seem to fight that
idea and without reason. Don't some hams use a loop antenna for
listening purposes because of its high Q ? Never tried out a loop
antenna myself but again that is an antenna that uses coupling just
like a Q
multiplier and so the filter is in the antenna! For listening purposes
it obviously has a better efficiency per unit length than a dipole ten
times its length. Going from an S1 signal to nearly an S9 just by
introducing coupling,
sounds like a hams dream.
Regards
Art

3411. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 01:21:28 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <3KadnYajaqOPrtjd4p2dnA@comcast.com>
Source record: 99083

What he is analyzing is not directly applicable to an RF amplifier. He is looking at the whole thing, power source and generator. An RF analogy would be a poorly regulated DC supply that is feeding an RF amplifier. Reduce the load, and the DC voltage goes up. This changes the RF output.

RF amps are not power limited, up to the point where the transistor melts. They are voltage limited; you can not get a peak RF drain voltage (inside the die) greater than the DC supply voltage. A secondary effect of a load change is caused by the gain of the transistor being current and voltage dependent.

Tam/WB2TT
"Dave" <noone@nowhere.com> wrote in message
news:FaWdnTbp6v7VPd7dRVn-sQ@crocker.com...
> have you guys read this one yet?
>
> www.qsl.net/w9dmk/MPTT.pdf
>
>

3412. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 01:24:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <27ca405bcnsmpfgj0m28nlr0k2g4ma0a9q@4ax.com>
Source record: 99084

On Wed, 03 Mar 2004 00:56:57 GMT, "Old Ed"
<eseniorsR-E-M-O-V-E@earthlink.net> wrote:

>"Lossless resistance?" Would that be zero resistance,
>or perhaps a negative resistance, as in the active part of
>a tunnel diode's V-I characteristic?
>
>I am a career EE, with a couple of graduate EE degrees;
>and this is something entirely new to me. Could you explain
>this concept, and/or provide some references?
>
>Thanks, Ed

Hi Ed,

This is the most useless term employed in these threads; what I call a difference without a distinction.

To put it shortly, it is the resistance observed in an infinite transmission line (better known as the Characteristic Z) or the resistance of an antenna (better known as the Radiation Resistance). You will note that a competent engineer already understands the nature of this resistance, shrubs may need more words to obtain the same knowledge.

Some explanations like to force it into the same definition of Z, and then add more words to denote there is not reactance, and then more words to add there is no heat generated.

In other words (too many of them) the issue is driven from the physics of heat which if anyone peeled back the onion layers, then they would find they have not actually escaped from it all, and more words are forced into the definition to argue what dissipation means.

Principally, a new instrument has been added to the Ohm Meter, the thermometer, to prove you have in fact measured the value of a carbon composition resistor. No one actually does this; no one actually could offer a suitable caloric answer if their life depended on it; and certainly no one could tell you what the resistance is from a thermometer reading. But they would demand it is necessary none the less. ;-)

73's
Richard Clark, KB7QHC

3413. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 01:47:50 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40453961_6@corp.newsgroups.com>
Source record: 99085

John Smith wrote:
> Check for reflected power in either direction.
> If none, then it is conjugally matched exactly.

Isn't a 50 ohm transmitter conjugately matched to a 50 ohm load
when fed through 1/2 wavelength of 450 ohm ladder-line?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3414. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 01:50:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40453a00_6@corp.newsgroups.com>
Source record: 99086

Gene Fuller wrote:
> Are you suggesting that a steam engine is needed in addition to "obvious
> and elementary notions"?

I didn't say anything about a steam engine, Gene. The question is:
How do you prove a conjugate match exists through measurements when
you are completely ignorant of the source impedance?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3415. Re: MP-1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 02:18:51 UTC
From: alhearn@earthlink.net
Message-ID: <361741e8.0403021818.14d65fd5@posting.google.com>
Source record: 99087

I've just purchased an MP-1, based on doing considerable research. I need a portable antenna that is capable of operation in hotel rooms and outside locations with limited space. I like its mechanical sturdiness, its clean operation, and its small break-down size.

What must be realized about any short verticle antenna such as the MP-1 is that it is inherently inefficient. More RF energy is lost in the loading coil and ground system (counterpoise) than is radiated. However, it WILL provide contacts, although much more limited than a full-sized antenna. That's a compromise that is perectly acceptable to me when operating portable.

Al

Yves Dussault <yvesNOdussault@videotron.ca> wrote in message news:<9m9640du7sjkldcusvk3ejg4g113efivqj@4ax.com>...
> Any of you has used the MP-1 antenna?
> Comments?
> VE2ATD

3416. Re: Any comments on LDG Z-100?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 03:29:03 UTC
From: "Peter V. Ritter" <ac6kd@charter.net>
Message-ID: <104ak8bb4mnbh6a@corp.supernews.com>
Source record: 99088

Hi Dave ...
Been using mine for mostly portable OP using a 20 meter
dipole usually launched to 20 feet or so. The Z-100 tunes this successfully
on 80 thru 10 meters. It seems to be more fussy on 6 meters and 160, so
having an antenna made for those bands would help it out. It tunes fast, and
I was amazed how cool it runs even tuning the 20 meter dipole on 80 ! (Had
some good QSOs there). It is a bit noisy, with relay clatter until the
first tuning on each band is made. Once a frequency is tuned low enough in
SWR, though, it's very fast. It doesn't always get below 2:1 SWR, but it's
satisfactory. I put a manual tuner in line if I really want to get SWR low !

GL, Pete AC6KD

"Dave K6DLW" <k6dlw@skyhighway.com> wrote in message
news:c0mhbh01squ@enews2.newsguy.com...
> I am looking at one of these for use with my mobile station. It is a
Kenwood
> TS50S and Hamstick. Anyone using one? How is it working? Thanks.
>
> Dave K6DLW
>
>

3417. Re: hula hoop antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 03:37:14 UTC
From: funkbastler <funkbastler@eudoramail.com>
Message-ID: <dlka40ttamtaa4mc3ecnvsatdg64kb3g36@4ax.com>
Source record: 99089

On Tue, 2 Mar 2004 20:05:36 -0500, "Ralph Mowery" <rmowery@ctc.net>
wrote:

>
>Not to mention that unless you remotely tune the capacitor it is very narrow
>banded.
>

What capacitor? Writeup in 1968 handbook doesn't show one.

--
-fb-

3418. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 04:08:27 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <%Sc1c.135259$hR.2553525@bgtnsc05-news.ops.worldnet.att.net>
Source record: 99091

Cecil,

8-) 8-) 8-)

8-) 8-) 8-)

(You seemed to miss the single smiley on my previous message, so I
though I would try a few more.)

The "proof" of something when one does not have adequate information is
often called "faith".

More to the point, there are several possible answers.

1. Who cares? If you can't measure it and you can't adjust it, just
forget about it. Lack of maximum power transfer is rarely fatal.

2. If you are operating an amateur radio station just twist the knobs on
the tuner until the transmitter is happy.

3. If you are designing a system to be sent into space then analyze and
test the heck out of it.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Are you suggesting that a steam engine is needed in addition to
>> "obvious and elementary notions"?
>
>
> I didn't say anything about a steam engine, Gene. The question is:
> How do you prove a conjugate match exists through measurements when
> you are completely ignorant of the source impedance?

3419. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 04:33:02 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4045601a_3@corp.newsgroups.com>
Source record: 99092

Gene Fuller wrote:
> (You seemed to miss the single smiley on my previous message, so I
> though I would try a few more.)

Why do you use 8's in your smileys? That's why I missed it.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3420. Re: hula hoop antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 05:00:34 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <JZadnecBYPN-xdjdRVn-sw@ctc.net>
Source record: 99090

> >
> >Not to mention that unless you remotely tune the capacitor it is very
narrow
> >banded.
> >
>
> What capacitor? Writeup in 1968 handbook doesn't show one.
>

The one that is needed to tune the antenna if you want to operate it over much more than a few Kc on 80 or 40 meters without cutting or finding a way to make the antenna longer.

3421. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 05:20:55 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403022120.6fa36324@posting.google.com>
Source record: 99093

"John Smith" <pani@yahoo.com> wrote in message
news:<c22nqg$1onl5u$1@ID-225206.news.uni-berlin.de>...
> From the design side, MPTT is defined at an interface, and minimizes
> "reflected power" at that interface, and that is it.
>
> The other items about matching are also quite important, such as stability,
> loading, impedance transfer (both directions), bandwidth, Qs, loaded Qs etc.
> But that is Not MPTT. There is a tradeoff between these, if one can also
> obtain mptt, great, but close is good too.
>
> mptt is just one of several parameters needed to optimize a match. At times
> there are too many unknowns and the matching is experimental (class C)

Experimental ! Not any more, the computor does it quite easily
Regards
Art

3422. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 05:24:17 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <104aqsck72s6nfc@corp.supernews.com>
Source record: 99094

When a candidate for an EE faculty position visits, someone, usually at lunch, will bring the conversation around to the MPTT. If he or she does anything other than giggle they do not get my vote.

Let us leave this tar-baby out in the field. 73 Mac N8TT

--
J. Mc Laughlin - Michigan USA

3423. VHF to VHF/UHF upgrade questions, with images....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 06:20:07 UTC
From: Trevor Boicey <tboicey@brit.ca>
Message-ID: <pan.2004.03.03.06.20.18.446536@brit.ca>
Source record: 99095

Situation:

I bought a cottage last fall, about 50 minutes drive north of Ottawa, Canada.

The cottage came with a disused VHF-only antenna on an approximately 20 foot tower, with about 10 feet of pole including a rotator. With some noodling with the console and trimming of trees, I was able to get the rotator working and basic VHF reception.

So the goal now is to get UHF reception as well, perhaps improving my VHF reception along the way if possible.

The physical situation is difficult. The terrain is very mountainous, and the cottage is nestled on a steep hill about 300ft tall that blocks the main direction towards all transmitters in the city. The other side of the lake is also a steep mountain, so multipath is very prevalent.

As well, tall trees all around the property dwarf the tower. So... not an ideal situation, but my expectations are reasonable. It would just be nice to get enough channels to pass a rainy day, and a lot of the better channels are starting to be on UHF around here. (all analog)

The current antenna is shown here:

http://www.brit.ca/~tboicey/antenna_question_image_1.jpg

...I don't quite recognize the type, it's not the standard log-periodic style of TV antenna seen on most towers. Since it is VHF-only in an area with a dozen or so UHF stations, I assume it's an older installation. It is relatively large (certainly longer than 10 feet).

First question, is this older antenna design acceptable, and would it's VHF performance compare decently with a more conventional design of the same size? If it's fine, I prefer to just leave it there, but if it's an outdated or inferior design, there might be room for easy improvement right there.

It is only VHF, so I do need a UHF antenna in some shape or form. I have acquired this serviceable and more typically-styled UHF/VHF antenna, of about the same size:

http://www.brit.ca/~tboicey/antenna_question_image_2.jpg

Would the VHF performance of this "modern" style of antenna be any improvement on the existing one? If it would I might consider installing it, but that is obviously a bit of a job to switch considering the tower.

Another option that might work... the nose of the new antenna unbolts and seems to me to be a typical UHF design (with two VHF tines that I suspect wouldn't affect UHF):

http://www.brit.ca/~tboicey/antenna_question_image_3.jpg

Am I correct in assuming that this can be used alone as a UHF antenna?

...if the existing VHF antenna is "about as good as I can expect", I might choose to just install this as a UHF antenna with a separate 300 ohm lead down, as the TV I use has a separate UHF input anyways so it would be simpler than combing and splitting anyways... not sure if I can get enough separation to put it on the same pole though...

Any ideas or suggestions? Experiences?

Cheers.

3424. Perfect Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 06:35:41 UTC
From: theplanters95@aol.comnospam
Message-ID: <20040303013541.03211.00000817@mb-m23.aol.com>
Source record: 99096

Hi All,

I am looking for my "perfect antenna". It should work on 75m-6m, with NVIS on 75m & 40m and good DX for 20m and above. Above all it must fit in my backyard which is 34 by 50 feet. The use of a tuner and/or balanced line is fine.

By perfect, I mean an antenna that gets the RF out (reasonable efficiency as a percentage).

At first, I considered a random loop of 34 ft by 50 ft, at about 20 to 30 feet high, with window line, but am having second thoughts.

Any ideas or suggestions?

Randy KA4NMA

3425. Mounting J-Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 06:37:13 UTC
From: theplanters95@aol.comnospam
Message-ID: <20040303013713.03211.00000818@mb-m23.aol.com>
Source record: 99097

I have a all copper J-pole antenna. What is the best method to mount it? Can the bottom piece (below the connector) be connected to a tv mast with clamps?

Randy ka4nma

3426. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 07:31:36 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403022331.248b0171@posting.google.com>
Source record: 99098

aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message Don't some hams use a loop antenna for
> listening purposes because of its high Q ?

No. Because it's directive and has sharp nulls.

Never tried out a loop
> antenna myself but again that is an antenna that uses coupling just
> like a Q
> multiplier and so the filter is in the antenna!

I build many loops. Two this past weekend for LW use. Even if you
"tune" the loop, the efficiency is waaaaayyyyy down from a dipole or
other reference antenna.

For listening purposes
> it obviously has a better efficiency per unit length than a dipole ten
> times its length.

Art, you know I don't like it when you talk this way...:/

Going from an S1 signal to nearly an S9 just by
> introducing coupling,
> sounds like a hams dream.

Nope, it's reality. But I don't think this really applies to antennas
that much.
You can "tune" a loop, and yes the signal may increase 8 S units, but
the antenna is still very inefficent as a whole. MK

3427. SWR Meter for very short ballaced linds

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 10:09:52 UTC
From: gcouger@couger.com
Message-ID: <ff742eec.0403030209.11b1bd3e@posting.google.com>
Source record: 99099

I am working on the design of a sensor that needs to measure the forward and reflected power in unison at or very near the feed point of the antenna drive by a very short 4 inches of less feed line over a range of 10 to 100 Mhz at power level less the 100 ma. The feed lines will be potted in a plastic to water proof it so the sensors will be embedded with them.

The ideal solution from a manufacturing and calibration point of view would have the antenna come right out of the network of the amplifier with no feed line to act as a transformer over a wide range of frequencies.

This is not a class project as most of the regulars know I well beyond that by nearly 40 years.

I can see a number of ways how to do it with a coaxial feed but open wire is less expensive and easier to manufacture and make repeatable. I realize at least the reflected power will have to amplified to be measures by equipment in my price range.

I seem to remember that a piece of open line placed parallel to the driven line and properly terminated will read voltage nodes on the line and possibly the forward and reflected power. It has been a very long time since I read that and was not paying much attention at the time. I think it was in a CQ when it was still in the small format with Wane Green as editor.

Any help or ideas welcome.

Thaks
Gordon Couger W5RED

3428. Re: MP-1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 12:12:24 UTC
From: Yves Dussault <yvesNOdussault@videotron.ca>
Message-ID: <voib40paimv1q0khmlk08jmk9bpktvf8pg@4ax.com>
Source record: 99100

Thanks for the comments!
I intend to use it by putting it on my patio where I am not allowed to
have a permanent antenna.....
Well, better than nothing, I guess...
My 5 element TH5 was probably better.....10 years ago....HI!
My rig will be a K1 Elecraft....
Do you think I'll make DXCC in 24 hours?????
Hi!
VE2ATD

3429. Re: Mounting J-Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 13:48:12 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <wml1c.3665$cd1.130@newssvr22.news.prodigy.com>
Source record: 99101

"Theplanters95" <theplanters95@aol.comnospam> wrote in message
news:20040303013713.03211.00000818@mb-m23.aol.com...
> I have a all copper J-pole antenna. What is the best method to mount it?
Can
> the bottom piece (below the connector) be connected to a tv mast with
clamps?

Yes... you can ground the antenna, in fact,
it is recommended.

--
Steve
KI5YG
.

3430. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 14:31:36 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040303093136.12138.00000757@mb-m02.aol.com>
Source record: 99102

>
>Why do you use 8's in your smileys? That's why I missed it.
>--
>73, Cecil http://www.qsl.net/w5dxp

They must be inteligent smileys, with glasses 8-)
or divers 0-) or rich ones $-)

BUm

3431. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 14:33:53 UTC
From: Denis O' Flynn <ei6hb@eircom.net>
Message-ID: <i1m1c.5379$rb.64217@news.indigo.ie>
Source record: 99103

Hi all,

Interested in this discussion as I'm also thinking abt the low bands and my back yard is abt 95' by 42'.
What ideas have you guys got on a vertical antenna - even a raised vertical??

Denis EI6HB
ei6hb@eircom.net

"Mark Keith" <nm5k@wt.net> wrote in message news:25eb70d7.0403020032.18f0da00@posting.google.com...
> <w4udx@bellsouth.net> wrote in message news:<Ckx0c.68404$Ve2.524@bignews6.bellsouth.net>...
> > > put up the longest dipole you can as high as you can and load it with a
> > > tuner... that is the easiest and fastest way. if you have an 80m dipole
> > > that will work ok to try it out.
> > >
> > Unless you have a legal-limit tuner, or are going to use QRP power levels, I
> > would advise against that.
> > If the dipole is coax fed and is 80M 1/2 wavelength, at 100 watts out there
> > is going to be some crazy-high RF voltages inside that tuner. If it's an MFJ
> > 300 watt tuner, more than likely it's going to arc like a welder.
> > Feeding the dipole with ladder-line is a different story......
> >
> Not much. It's still a pretty bad scenario even with ladder line, on
> say a T net tuner.
> If all a person can do is use a 80 dipole, it usually best to short
> the feedline together, or just feed the center pin, and feed the whole
> thing as a vertical using the tuner to match. Will usually work much
> better on 160m, than feeding a 80 dipole normally. You'll hear the
> noise/signal level pop way up when you feed it this way compared to as
> a half dipole with all the resulting tuner loss. MK

3432. Re: Mounting J-Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 14:34:06 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <4045ecbe.224467234@news.galilei.com>
Source record: 99104

theplanters95@aol.comnospam (Theplanters95) verbositized:

>I have a all copper J-pole antenna. What is the best method to mount it? Can
>the bottom piece (below the connector) be connected to a tv mast with clamps?

Yes, or stuck right onto the top of the mast!

TTUL
Gary

3433. Re: Mounting J-Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 14:44:42 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <4045EF5A.7060106@frontiernet.net>
Source record: 99105

Gary V. Deutschmann, Sr. wrote:
> theplanters95@aol.comnospam (Theplanters95) verbositized:
>
>
>>I have a all copper J-pole antenna. What is the best method to mount it? Can
>>the bottom piece (below the connector) be connected to a tv mast with clamps?
>
>
> Yes, or stuck right onto the top of the mast!

Or make the bottom piece 4 feet long and attach it to your bumper with a
floor flange. Worked great until that low drive thru :-O

3434. Re: 160 Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 15:04:21 UTC
From: Incognito <BLB@sero.net>
Message-ID: <Vtm1c.12758$id3.561@fed1read01>
Source record: 99106

For low band antennas and DXing -- see ON4UN's Book
http://www.arrl.org/catalog/7040/

600 pages of excellent information

--
Incognito By Necessity (:-(

If you can't convince them, confuse them.
- - -Harry S Truman

"Denis O' Flynn" <ei6hb@eircom.net> wrote in message
news:i1m1c.5379$rb.64217@news.indigo.ie...
> Hi all,
>
> Interested in this discussion as I'm also thinking abt the low bands and
my
> back yard is abt 95' by 42'.
> What ideas have you guys got on a vertical antenna - even a raised
> vertical??
>
> Denis EI6HB
> ei6hb@eircom.net
>
>
> "Mark Keith" <nm5k@wt.net> wrote in message
> news:25eb70d7.0403020032.18f0da00@posting.google.com...
> > <w4udx@bellsouth.net> wrote in message
> news:<Ckx0c.68404$Ve2.524@bignews6.bellsouth.net>...
> > > > > put up the longest dipole you can as high as you can and load it
with
> a
> > > > > tuner... that is the easiest and fastest way. if you have an 80m
> dipole
> > > > > that will work ok to try it out.
> > >
> > > Unless you have a legal-limit tuner, or are going to use QRP power
> levels, I
> > > would advise against that.
> > > If the dipole is coax fed and is 80M 1/2 wavelength, at 100 watts out
> there
> > > is going to be some crazy-high RF voltages inside that tuner. If it's
an
> MFJ

> > > 300 watt tuner, more than likely it's going to arc like a welder.
> > > Feeding the dipole with ladder-line is a different story......
> >
> > Not much. It's still a pretty bad scenario even with ladder line, on
> > say a T net tuner.
> > If all a person can do is use a 80 dipole, it usually best to short
> > the feedline together, or just feed the center pin, and feed the whole
> > thing as a vertical using the tuner to match. Will usually work much
> > better on 160m, than feeding a 80 dipole normally. You'll hear the
> > noise/signal level pop way up when you feed it this way compared to as
> > a half dipole with all the resulting tuner loss. MK
>
>

3435. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 15:37:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4045fbec$1_6@corp.newsgroups.com>
Source record: 99107

Yuri Blanarovich wrote:
> They must be inteligent smileys, with glasses 8-)
> or divers 0-) or rich ones $-)

I'm not very internet savvy. What is an intelligent smiley?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3436. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 15:39:15 UTC
From: jder8745@aol.com
Message-ID: <20040303103915.22770.00000691@mb-m10.aol.com>
Source record: 99108

"Isn't a 50 ohm transmitter conjugately matched to a 50 ohm load
when fed through 1/2 wavelength of 450 ohm ladder-line?"

==========

Heck yes, I'm assuming u mean 50 + j 0 Ohms.

73 de Jack, K9CUN

3437. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 15:48:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c24uom$7fr$1@sparta.btinternet.com>
Source record: 99109

Everybody keeps going on and on and on about 50-ohm transmitters when in fact there's no such thing.

3438. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 15:50:47 UTC
From: richardharrison@webtv.net
Message-ID: <3051-4045FED7-62@storefull-3258.bay.webtv.net>
Source record: 99113

Gene Fuller wrote:
"The maximum power transfer theorem describes the impact from change of the load impedance."

That`s true. When impedances at a junction become matched, you can cut the matched line at any place and the impedances looking in opposite directions are conjugates of each other.

It is not pathological to take full advantage of the theeorem. Conjugate matching is the same as d-c matching except that reactance must be neutralized not to get into the way of a-c maximum power transfer.

W.L. Everitt is one of many authors who state the maximum power transfer theorem. I quoted Terman early in this thread. Here is a quote from King, Mimno, annd Wing on page 43 of "Transmission Lines, Antennas, and Wave Guides":

If a dissipationless network is inserted between a constant-voltage generator of internal impedance ZG and a load of impedance ZR such that maximum power is delivered to the load, at every pair of terminals the impedances looking in opposite directions are conjugates of each other. There`s lots more. Read the book.

Best regards, Richard Harrison, KB5WZI

3439. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 15:53:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2mvb409bau1q0uqp1qtllt5c1t85pg1p40@4ax.com>
Source record: 99110

```
On Wed, 3 Mar 2004 15:48:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>Everybody keeps going on and on and on about 50-ohm transmitters when in
>fact there's no such thing.
>
Yes, you do keep going on and on about it, don't you? That and Q and
SWR meter alternative names - all pretty lame stuff.
```

3440. Re: Mounting J-Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 15:54:25 UTC
From: "Dan Richardson"
Message-ID: <n2vb40pvkc0o369a4cvvg78hurvrjiikl8@4ax.com>
Source record: 99115

On Wed, 03 Mar 2004 13:48:12 GMT, " Stephen Cowell"
<scowell@sbcglobal.net> wrote:
[snip]
>
>Yes... you can ground the antenna, in fact,
>it is recommended.

There is one problem not often mentioned with connecting a j-pole to a ground mounted conductive mast. It can increase the amount of higher angle radiation. Mast lengths that are multiples of ï¿½-wavelengths are the worst for this problem and mast lengths that are odd multiples of ï¿½-wave produce the least.

If the mast is not grounded (floating) then the situation is reversed, ï¿½-wave would least high angle radiation and and ï¿½-wave the most.

NEC modeling has shown that for good low-angle radiation patterns insulating a j-pole from a conductive mast produces more power towards the horizon.

73,
Danny, K6MHE

3441. Re: Mounting J-Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 16:00:17 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <min1c.6861$PY.6450@lakeread05>
Source record: 99111

> > I have a all copper J-pole antenna. What is the best method to mount
it?
> Can
> > the bottom piece (below the connector) be connected to a tv mast with
> clamps?
>
> Yes... you can ground the antenna, in fact,
> it is recommended.
> --
> Steve
> KI5YG
> .

Copper J-pole mast-mounted alongside chimney works extremely well for me on vhf-marine. Mine is grounded with insulator-supported #4 solid copper wire, not for antenna performance, but because it more than just resembles an air-terminal / lightning rod! Because I use heavy feedline, there are no decouping-loops just under the J-Pole as recommended by most designs. So if my feedline is radiating, it doesn't seem to hurt the maximun distance I obtain with that antenna. It works very efficiently far beyond the theoretical radio horizon.

Jack
Oceana Radio

3442. Re: Perfect Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 16:03:25 UTC
From: denton <denton@oregontrail.net>
Message-ID: <c24v4n$b0m$1@news.oregontrail.net>
Source record: 99112

try putting up the loop anyway...and opening it opposit of the feedpoint for use on 80 meters. I will probably work just fine.
"Theplanters95" <theplanters95@aol.comnospam> wrote in message news:20040303013541.03211.00000817@mb-m23.aol.com...
> Hi All,
>
> I am looking for my "perfect antenna". It should work on 75m-6m, with NVIS on
> 75m & 40m and good DX for 20m and above. Above all it must fit in my backyard
> which is 34 by 50 feet. The use of a tuner and/or balanced line is fine.
>
> By perfect, I mean an antenna that gets the RF out (reasonable efficiency as a
> percentage).
>
> At first, I considered a random loop of 34 ft by 50 ft, at about 20 to 30 feet
> high, with window line, but am having second thoughts.
>
> Any ideas or suggestions?
>
> Randy KA4NMA

3443. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 16:16:39 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40460505_6@corp.newsgroups.com>
Source record: 99114

Richard Harrison wrote:
> If a dissipationless network is inserted between a constant-voltage
> generator of internal impedance ZG and a load of impedance ZR such that
> maximum power is delivered to the load, at every pair of terminals the
> impedances looking in opposite directions are conjugates of each other.

Since dissipationless networks don't exist in reality, doesn't this imply
that it is impossible to achieve a conjugate match at *all* points in a
real-world system? - Not trying to be ornery, just realistic.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3444. Re: Perfect Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 17:10:02 UTC
From: Nomen Nescio <nobody@dizum.com>
Message-ID: <63a193fcc62c1ee662fd11f2ba76dac6@dizum.com>
Source record: 99116

In article <20040303013541.03211.00000817@mb-m23.aol.com>
theplanters95@aol.comnospam (Theplanters95) wrote:

I'd love to see this thread expand to answers. Many of us have the same wants, maybe not all the bands, but a least 80-10 in the confines given above. Many solve with a vertical but I for one, would like something better.

3445. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 17:13:04 UTC
From: richardharrison@webtv.net
Message-ID: <3052-40461220-28@storefull-3258.bay.webtv.net>
Source record: 99117

Old Ed wrote:
"Couild you explain this concept, and/or provide some references?"

Suppose we adjust a variable d-c supply to full-scale indication on an external meter. Next, install a chopper (lossless on-off circuit) driven at a high frequency to produce a square wave interruption of the d-c with a 50% duty cycle, and insert the chopper contacts in series with the external meter.

The chopper connects the external meter 50% of the time and disconnercts it 50% of the time. The meter reads 50% of full scale.

Another way to reduce the scale reading to 50% is to insert a resistor in series with the meter. If it is an 0-1 ma meter and if it has an internal resistance of 1000 ohms, insertion of a 1000-ohm resistor in series with the meter will reduce the meter scale indication to 50%.

The chopper as part of the meter source eliminates current to the meter 50% of the time.

The resistor which has the same effect and produces the same scale indication as the chopper on the effective output current exacts its loss of 0.0005 amp x 0.5 volt or 0.25 milliwatt during 100% of the time.

The chopper eliminates the power-losing resistor by substituting off-time in the power source. The source only supplies the power used by the load. With a resistor limiting power to the load, the source supplies its loss and the load power.

The power in the load, a meter in our example, is the same using either the resistor or the chopper. The resistor is analogous to a Class-A amplifier. The chopper is analogous to a Class-C amplifier.

The off-time has the same effective opposition to current to a load as a dissipative resistance. As the time-limited currented opposition to load current consumes no power, it is called a dissipationless resistance.

Best regards, Richard Harrison, KB5WZI

3446. Re: SWR Meter for very short ballaced linds

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 17:39:00 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403030939.5c3ddba5@posting.google.com>
Source record: 99118

At 100MHz, 4 inches of line, even embedded in plastic with a relative dielectric constant of 4, is less than 0.07 wavelengths, and of course even less at lower frequencies. I suspect it's not transmission line SWR but source loading that you may be interested in. It may suffice to simply measure the source output voltage. If you really want that transmitter loading indicator, put in a simple transformer coupler. Even if you meant 100mW instead of 100mA, that's still enough to drive a simple, inexpensive diode detector. Yes, coupled lines will work, too, though the coupling will change appreciably over the 10:1 frequency range, and a transformer coupler will be nearly "flat."

Cheers,
Tom

gcouger@couger.com (Gordon Couger) wrote in message news:<ff742eec.0403030209.11b1bd3e@posting.google.com>...
> I am working on the design of a sensor that needs to measure the
> forward and reflected power in unison at or very near the feed point
> of the antenna drive by a very short 4 inches of less feed line over a
> range of 10 to 100 Mhz at power level less the 100 ma. The feed lines
> will be potted in a plastic to water proof it so the sensors will be
> embedded with them.
>
> The ideal solution from a manufacturing and calibration point of view
> would have the antenna come right out of the network of the amplifier
> with no feed line to act as a transformer over a wide range of
> frequencies.
>
> This is not a class project as most of the regulars know I well beyond
> that by nearly 40 years.
>
> I can see a number of ways how to do it with a coaxial feed but open
> wire is less expensive and easier to manufacture and make repeatable.
> I realize at least the reflected power will have to amplified to be
> measures by equipment in my price range.
>
> I seem to remember that a piece of open line placed parallel to the
> driven line and properly terminated will read voltage nodes on the
> line and possibly the forward and reflected power. It has been a very
> long time since I read that and was not paying much attention at the
> time. I think it was in a CQ when it was still in the small format
> with Wane Green as editor.
>
> Any help or ideas welcome.
>

> Thaks
> Gordon Couger W5RED

3447. Re: Perfect Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 17:42:12 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <r26c405v6f32067jt4umovji5n2ii1e2qd@4ax.com>
Source record: 99019

On 03 Mar 2004 06:35:41 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:

>Hi All,
>
>I am looking for my "perfect antenna". It should work on 75m-6m, with NVIS on
>75m & 40m and good DX for 20m and above. Above all it must fit in my backyard
>which is 34 by 50 feet. The use of a tuner and/or balanced line is fine.
>
>By perfect, I mean an antenna that gets the RF out (reasonable efficiency as a
>percentage).
>
>At first, I considered a random loop of 34 ft by 50 ft, at about 20 to 30 feet
>high, with window line, but am having second thoughts.
>
>Any ideas or suggestions?
>
>Randy KA4NMA

Randy ,

I Think the loop would work well for you under the perameters you
mentioned.. it should be good NVIS on 80 & 40 and begin to show low
angle radiation above those bands. you may have to do so work to get
it load well for you on 80m though it's a bit short there..

I've use a 520' Horizontal loop here for number of years with good
results.. it averages about 30' above ground.

73 Dave

3448. Re: Perfect Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 18:16:53 UTC
From: KA9CAR <ka9car@a_r_r_l_.net>
Message-ID: <c257eo$1mcd$1@news1.tribune.com>
Source record: 99020

I had a loop that was about 200 feet, and it was triangular.

The only reason I took it down was that the way my trees had grown it was getting tangled on a regular basis.

Fed it with 300 ohm tv line. Several different tuners WITHOUT a balun worked fine on the loop. I also used a Balanced (Johnson matchbox) tuner on the loop with good results.

John
KA9CAR

"KC1DI" <kc1di@arrl.net> wrote in message news:r26c405v6f32067jt4umovji5n2ii1e2qd@4ax.com...
> On 03 Mar 2004 06:35:41 GMT, theplanters95@aol.comnospam
> (Theplanters95) wrote:
>
> >Hi All,
> >
> >I am looking for my "perfect antenna". It should work on 75m-6m, with NVIS on
> >75m & 40m and good DX for 20m and above. Above all it must fit in my backyard
> >which is 34 by 50 feet. The use of a tuner and/or balanced line is fine.
> >
> >By perfect, I mean an antenna that gets the RF out (reasonable efficiency as a
> >percentage).
> >
> >At first, I considered a random loop of 34 ft by 50 ft, at about 20 to 30 feet
> >high, with window line, but am having second thoughts.
> >
> >Any ideas or suggestions?
> >
> >Randy KA4NMA
>
>
> Randy ,
>
> I Think the loop would work well for you under the perameters you
> mentioned.. it should be good NVIS on 80 & 40 and begin to show low
> angle radiation above those bands. you may have to do so work to get
> it load well for you on 80m though it's a bit short there..
>

> I've use a 520' Horizontal loop here for number of years with good
> results.. it averages about 30' above ground.
>
> 73 Dave
>

3449. Re: Perfect Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 18:53:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404629e0$1_8@corp.newsgroups.com>
Source record: 99021

Nomen Nescio wrote:
> In article <20040303013541.03211.00000817@mb-m23.aol.com>
> theplanters95@aol.comnospam (Theplanters95) wrote:
> I'd love to see this thread expand to answers. Many of us have the same
> wants, maybe not all the bands, but a least 80-10 in the confines given
> above. Many solve with a vertical but I for one, would like something
> better.

This has been covered before but bears repeating. Consider a 40m
full-wave square loop of about 138 feet, about 34 ft. per side.
If an insulator is installed halfway around the loop from the
feedpoint, the antenna becomes 1/2WL on 80m. Figure out an easy
way to short the insulator out for 40m-10m operation and open the
circuit at the insulator for 80m operation. Three possibilities
come to mind.

Locate the insulator on a pulley on one of the support poles and
lower that point on the antenna for physical access. Shouldn't
take more than 5 minutes to accomplish the short/open function.

Install a 1/4WL shorted stub for 80m operation. That will give an
open circuit on 80m and a short circuit on any multiple of 3.8 MHz,
for instance.

I once rigged up a Rube Goldberg high voltage switch out of copper
tubing supported by PVC pipe. One end of the antenna was attached
to a piece of 1/2 inch copper tubing. The other end was attached
to a piece of 1/4 inch copper tubing. By tugging on one of two
strings, I could move the 1/4" tubing in or out of the 1/2" tubing.
More elegant than strings would be a small screwdriver motor powered
by +/- DC from the shack end of the transmission line.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3450. Re: hula hoop antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 20:22:13 UTC
From: Norbert <pa7nrNNOSPAMMM@qsl.net>
Message-ID: <68r1c.734261$_x2.1630087@zonnet-reader-1>
Source record: 99022

> hi i have read in one of the old ARRL books about a hula hoop antenna that
> only stands about 3 inches high on 10 mters but works like a full size
> dipole has anyone built one and if so how did it work
> many thanks
> dave
>

Dave,

I read about the Hula Loop antenna. I think it's the same thing as the
Magnetic Loop antenna. I have several magnetic loop antennas here and I can
say that they work very nicely.

Check out my homepage for more information.

73, Norbert (PA7NR)
http://www.qsl.net/pa7nr/index.html

3451. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 20:27:02 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c25f52$1p8ahc$1@ID-225206.news.uni-berlin.de>
Source record: 99023

It is in the same class of parts with inductancless inductors,
and capacitanceless capacitors are in.
With lossless resistance they can form
a lossless, non-energy storing, extremely low/high Q, network.
No need for tuning either!
(sorry-just not serious today)

"Old Ed" <eseniorsR-E-M-O-V-E@earthlink.net> wrote in message
news:t3a1c.18624$aT1.15477@newsread1.news.pas.earthlink.net...
> "Lossless resistance?" Would that be zero resistance,
> or perhaps a negative resistance, as in the active part of
> a tunnel diode's V-I characteristic?
>
> I am a career EE, with a couple of graduate EE degrees;
> and this is something entirely new to me. Could you explain
> this concept, and/or provide some references?
>
> Thanks, Ed
>
>
>

3452. Guy Insulators??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 20:39:35 UTC
From: Vito <vito@crosslink.net>
Message-ID: <4046428a$0$8078@dingus.crosslink.net>
Source record: 99024

Where does one get insulators for tower/mast guy wires?

TIA
K3DWW

3453. Re: Guy Insulators??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 20:47:02 UTC
From: denton <denton@oregontrail.net>
Message-ID: <c25foe$fi7$1@news.oregontrail.net>
Source record: 99025

Electric fence post insulators....available at farm supply houses
"Vito" <vito@crosslink.net> wrote in message
news:4046428a$0$8078@dingus.crosslink.net...
> Where does one get insulators for tower/mast guy wires?
>
> TIA
> K3DWW
>
>

3454. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 21:02:01 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Xuidna2gx4xP2tvd4p2dnA@crocker.com>
Source record: 99026

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:2mvb409bau1q0uqp1qtllt5c1t85pg1p40@4ax.com...
> On Wed, 3 Mar 2004 15:48:38 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
> >Everybody keeps going on and on and on about 50-ohm transmitters when in
> >fact there's no such thing.
> >
> Yes, you do keep going on and on about it, don't you? That and Q and
> SWR meter alternative names - all pretty lame stuff.

and on, and on, and on, and on... i knew this would be a good thread.

3455. Re: Perfect Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 21:10:01 UTC
From: Nomen Nescio <nobody@dizum.com>
Message-ID: <053a626123235853cf19234ce0385d7e@dizum.com>
Source record: 99027

In article <404629e0$1_8@corp.newsgroups.com>
Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:

Tnx for taking the time with your details. Possibilities for sure.

3456. Re: Guy Insulators??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 21:40:10 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <05kc409iie5t9ikp6hrd0ndv2sjepgtld0@4ax.com>
Source record: 99028

On Wed, 3 Mar 2004 12:47:02 -0800, "denton" <denton@oregontrail.net>
wrote:

|Electric fence post insulators....available at farm supply houses

Hardly!

Texas Towers.

3457. Re: Newbie TV rotator question, wiring

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 21:42:26 UTC
From: Floyd Sense <sentek@sprintmail.com>
Message-ID: <6js1c.17609$yZ1.14719@newsread2.news.pas.earthlink.net>
Source record: 99029

I have a Channel Master 9515, and I believe the motor control is the same as the 9513. At the control, 1 and 3 are the hot motor leads and 2 is ground. The configuration at the rotor is the same. Looking at the bottom of the rotor, with the access plate open and the cable entry grommet facing down, the terminals are 1, 2, 3 across. I don't know where you got the info about the leads being numbered differently on the rotor and controller, but they are not. I believe that lead 1 activated will cause CCW rotation and lead 3 activated will cause CW rotation.

73, K8AC

"CME" <cme100@hotmail.com> wrote in message
news:ndSdnaBkQeYJq97dRVn-tw@look.ca...
> I have a channel master rotator control, sticker on back says model 9513,
> the model on the case says 72211.
>
> Can someone tell me what the 3 wires due, like are the gound, hot ,
neutral.
>
> the roatotor motor at the antenna has different wire codes to the piece at
> the control.
>
> dont want to wire it up and fry it.
>
> the control has number 1 to 3 at the terminals. its 25 V 1.5 amp output.
>
> Rotor motor at antenna has other color coded wires, previous owner used a
> seperate piece of wire with different wires. Inside the box its numbered 1
> to 3 also, but the rotator motor and controller are suppose to be
different.
>
> On the controller the number 1 terminal is off to one side,
>
> In the rotor motor Number 1 tab has a black wire going to it and 2 and 3
> have yellow wires coming off the motor field(coils) it looks like.
>
>
>

3458. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 21:51:38 UTC
From: richardharrison@webtv.net
Message-ID: <3051-4046536A-119@storefull-3258.bay.webtv.net>
Source record: 99031

John Smith wrote:
"It is in the same class of parts with inductanceless inductors, and capacitanceless capacitors are in."

Lossless resistance makes volts per amp. Inductors and capacitors are lossless because they only store energy and give it all back.

A lossless resistance stores no energy. Its action is immediate.

An inductance or capacitance with zero reactance also stores no energy and makes no volts per amp as opposition.

Best regards, Richard Harrison, KB5WZI

3459. Re: Perfect Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 21:55:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c25k81$ja3$1@titan.btinternet.com>
Source record: 99030

Yes Cec, to use a vertical 1/4-wave line is a neat way of shorting and opening a horizontal wire at a single frequency from ground level.

I once used a sealed reed relay to do a similar job. One of the horizontal antenna wires was in fact twin 20-gauge speaker cable to operate the relay coil. The shack end of the twin wire required a bifilar choke wound on a ferrite rod to separate RF from the DC relay supply.

Reg, G4FGQ

3460. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 22:16:21 UTC
From: derswede@aol.comspam.com
Message-ID: <20040303171621.18277.00000731@mb-m06.aol.com>
Source record: 99032

<< It is in the same class of parts with inductancless inductors,
and capacitanceless capacitors are in.
With lossless resistance they can form
a lossless, non-energy storing, extremely low/high Q, network.
No need for tuning either! >>

Heh...must be the principle behind this antenna...

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3080895366&category=48692

Love that 10M beam!
A

3461. Re: hula hoop antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 22:52:03 UTC
From: funkbastler <funkbastler@eudoramail.com>
Message-ID: <l4oc40ls741htc2hb02s3kmpbnqpv3jjrr@4ax.com>
Source record: 99033

On Wed, 3 Mar 2004 00:00:34 -0500, "Ralph Mowery" <rmowery@ctc.net>
wrote:

>
>The one that is needed to tune the antenna if you want to operate it over
>much more than a few Kc on 80 or 40 meters without cutting or finding a way
>to make the antenna longer.
>
>

Understood.

Kc???? Your age is showing ;-)

--
-fb-

3462. Re: SWR Meter for very short ballaced linds

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 22:55:07 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <3dSdnaI8NZXQ_9vdRVn-vw@comcast.com>
Source record: 99034

On 3-Mar-2004, gcouger@couger.com (Gordon Couger) wrote:

> am working on the design of a sensor that needs to measure the
> forward and reflected power in unison at or very near the feed point
> of the antenna drive by a very short 4 inches of less feed line over a
> range of 10 to 100 Mhz at power level less the 100 ma. The feed lines
> will be potted in a plastic to water proof it so the sensors will be
> embedded with them.
>
> The ideal solution from a manufacturing and calibration point of view
> would have the antenna come right out of the network of the amplifier
> with no feed line to act as a transformer over a wide range of
> frequencies.
>
> This is not a class project as most of the regulars know I well beyond
> that by nearly 40 years.
>
> I can see a number of ways how to do it with a coaxial feed but open
> wire is less expensive and easier to manufacture and make repeatable.
> I realize at least the reflected power will have to amplified to be
> measures by equipment in my price range.

Gordon,
Take a look at the Return Loss Analyzer at:

http//www.qsl.net/n2pk/

or

http://users.adelphia.net/~n2pk/VNA/VNAarch.html

Ken Fowler, KO6NO

3463. Re: Guy Insulators??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-03 23:17:13 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <104cprdsstf2o8a@corp.supernews.com>
Source record: 99035

MFJ also sells them now.

Vito wrote:

>Where does one get insulators for tower/mast guy wires?
>
>TIA
>K3DWW
>
>
>
>

W5WQN

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

3464. Re: Guy Insulators??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 01:29:54 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <40468670.6729DDC@shaw.ca>
Source record: 99036

Mike Luther wrote:
>
> MFJ also sells them now.
>
Not to knock MFJ too badly, but would you trust your tower guyed
with insulators from MFJ? Caveat Emptor!

Irv VE6BP

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3465. Re: SWR Meter for very short ballaced linds

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 01:42:57 UTC
From: richardharrison@webtv.net
Message-ID: <9559-404689A1-86@storefull-3253.bay.webtv.net>
Source record: 99037

Ken Fowler wrote:
"---at or very near the feed point of the antenna drive by a very short 4 inches or less---."

The Bird Model 43 has a width of 5.125 inches including the 50-ohm coax connectors. You can be sure Bird didn`t make the length of that precision coax fixture any longer than necessary.

Insertion of even 5 inches of additional coax in a mismatched feedline at VHF changes the tuning and the match between source and load. It`s desirable to minimize disturbance of the antenna match when the meter is inserted and withdrawn from the line.

Ken likely has different reasons for making his metering line section come in under 4 inches in length

Best regards, Richard Harrison, KB5WZI

3466. Re: Mounting J-Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 01:46:16 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <jc2d40dh3qgp4seasch6mrojajnma4ng2c@4ax.com>
Source record: 99038

On Wed, 03 Mar 2004 07:54:25 -0800, Dan Richardson
<<ChangeThisToCallSign>@mendolink.com> wrote:

>On Wed, 03 Mar 2004 13:48:12 GMT, " Stephen Cowell"
><scowell@sbcglobal.net> wrote:
>[snip]
>>
>>Yes... you can ground the antenna, in fact,
>>it is recommended.
>
>There is one problem not often mentioned with connecting a j-pole to a
>ground mounted conductive mast. It can increase the amount of higher
>angle radiation. Mast lengths that are multiples of ï¿½-wavelengths are
>the worst for this problem and mast lengths that are odd multiples of
>ï¿½-wave produce the least.

From what I've read, there is practically no RF on the lower crook of
a "J" antenna, so why would using that crook as a mount and/or ground
attachment make much of a difference?

Bob
k5qwg

>
>If the mast is not grounded (floating) then the situation is reversed,
>ï¿½-wave would least high angle radiation and and ï¿½-wave the most.
>
>NEC modeling has shown that for good low-angle radiation patterns
>insulating a j-pole from a conductive mast produces more power towards
>the horizon.
>
>73,
>Danny, K6MHE
>

3467. Degen Designs Update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 02:39:25 UTC
From: G&R <spam@limbo.hell>
Message-ID: <pFw1c.16741$qA2.906633@news20.bellglobal.com>
Source record: 99039

Just as a quick note, we have updated our web page(s) at
www.degendesigns.com .

The updates include, addition of the AntennaPlot Program, CQ mag. special,
and various updated links pages.

We are the designers and manufacturers of the Baby Boomer Quad and the
unique High Performance 2m Stacked Vwave antenna.

Thank for taking the time to look at what we are doing.

Guenther VE3CVS
info@degendesigns.com
www.degendesigns.com

3468. BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 02:47:46 UTC
From: thatcher <thatc4@net.com>
Message-ID: <c265ct027k1@enews2.newsguy.com>
Source record: 99041

http://biz.yahoo.com/fool/040303/1078348320_1.html

Motley Fool
Broadband and Utilities, Oh My
Wednesday March 3, 4:12 pm ET
By Mark Mahorney

Only a year ago, broadband over power line (BPL) was seen as a technology with an uncertain future and far from implementation. Despite early snafus, BPL has ironed out its kinks and is now being rolled out. Though largely ignored, this is one of the most exciting events to hit technology news in a long time.

ADVERTISEMENT

Considering how long the Internet has been sharing phone lines, it's taken a long time for power lines to reach the dual-use point. Cable and DSL Internet service providers have been crossing their fingers hoping it wouldn't happen.

It's sneaking up on them just as cable Internet launched a sneak attack on dial-up providers. Now, the dial-up providers are largely dependent on phone company partnerships and rural customers who can't get cable or DSL. But what will become of them if those customers -- which represent a significant portion of the population -- can get broadband Internet over their power lines? And who would have thought we may soon be paying our power company for Internet access?

Yesterday, *Cinergy* (NYSE: CIN <http://finance.yahoo.com/q?s=cin&d=t> - News <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy Broadband subsidiary and partner Current Communications are rolling out the BPL service in the Cincinnati, Ohio area. After testing the service in a small region, the company is ready to unleash the power (no pun intended). It claims its service is faster -- more than three megabytes per second compared with cable's roughly two megs per second -- and cheaper than cable Internet.

Test customers have been happy with the service, and there have been no problems with interference. Furthermore, all that's needed to tap into it is a $30 HomePlug power line modem, which the company will be giving away.

Cinergy isn't the only utility looking at this technology, either. There are numerous power companies developing the capability or watching its development closely. Internet start-ups like Current Communications are waiting in the wings to help the utilities initiate and manage the service.

It's a potentially huge revenue source for the utilities, with the possibility of being a huge revenue drain for the current Internet providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA <http://finance.yahoo.com/q?s=cmcsa&d=t> - News <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS <http://finance.yahoo.com/q?s=bls&d=t> - News <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications* (NYSE: SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional dial-ups like *Time Warner's* (NYSE: TWX <http://finance.yahoo.com/q?s=twx&d=t> - News <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> - News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying attention.

From the look of things, this technology will roll out much faster than most people expect. I am certainly willing to give it a try if and when it comes to my area. And I recommend you check with your local power company to see if it has any plans to implement the technology. If so, consider taking a good look at both the stock and the service. It could be the next big thing.

/What do you think this new technology means for cable companies like Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet service providers like Time Warner's AOL <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with other Fools on our discussion boards./

/Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com> doesn't own shares of any companies mentioned./

3469. Re: Guy Insulators??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 02:54:06 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40469c4e_2@news1.prserv.net>
Source record: 99040

The last ones I bought I got from Graybar. I had previously bought some from Consolidated Electric Supply, but they have been bought out, and I don't recall the new name.

--
Crazy George
W5VPQ
Remove N O and S P A M imbedded in return address
"Vito" <vito@crosslink.net> wrote in message
news:4046428a$0$8078@dingus.crosslink.net...
> Where does one get insulators for tower/mast guy wires?
>
> TIA
> K3DWW
>
>

3470. Re: Mounting J-Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 02:58:49 UTC
From: "Dan Richardson"
Message-ID: <vk6d40lohp6ic0rru4fagr1lfkdg1eprd0@4ax.com>
Source record: 99042

On Wed, 03 Mar 2004 19:46:16 -0600, Bob Miller
<bxmiller@texas.netNOSPAM> wrote:

>From what I've read, there is practically no RF on the lower crook of
>a "J" antenna, so why would using that crook as a mount and/or ground
>attachment make much of a difference?

There is little RF voltage but there is a very high level of RF
current.

The same situation you find in the center of a ï¿½-wave dipole (low
voltage/ high current).

Danny, K6MHE

3471. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 03:50:44 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c2692m$1pa2dn$1@ID-225206.news.uni-berlin.de>
Source record: 99043

that should cover up a number of the Ham bands,
the signal is conducted by all of the AC wires in a city
someone got their $$$

"thatcher" <thatc4@net.com> wrote in message
news:c265ct027k1@enews2.newsguy.com...
> http://biz.yahoo.com/fool/040303/1078348320_1.html
>
>
> *Motley Fool*
> Broadband and Utilities, Oh My
> Wednesday March 3, 4:12 pm ET
> By Mark Mahorney
>
> Only a year ago, broadband over power line (BPL) was seen as a
> technology with an uncertain future and far from implementation. Despite
> early snafus, BPL has ironed out its kinks and is now being rolled out.
> Though largely ignored, this is one of the most exciting events to hit
> technology news in a long time.
>
> ADVERTISEMENT
>
> Considering how long the Internet has been sharing phone lines, it's
> taken a long time for power lines to reach the dual-use point. Cable and
> DSL Internet service providers have been crossing their fingers hoping
> it wouldn't happen.
>
> It's sneaking up on them just as cable Internet launched a sneak attack
> on dial-up providers. Now, the dial-up providers are largely dependent
> on phone company partnerships and rural customers who can't get cable or
> DSL. But what will become of them if those customers -- which represent
> a significant portion of the population -- can get broadband Internet
> over their power lines? And who would have thought we may soon be paying
> our power company for Internet access?
>
> Yesterday, *Cinergy* (NYSE: CIN <http://finance.yahoo.com/q?s=cin&d=t> -
> News <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
> Broadband subsidiary and partner Current Communications are rolling out
> the BPL service in the Cincinnati, Ohio area. After testing the service
> in a small region, the company is ready to unleash the power (no pun
> intended). It claims its service is faster -- more than three megabytes
> per second compared with cable's roughly two megs per second -- and
> cheaper than cable Internet.
>

> Test customers have been happy with the service, and there have been no
> problems with interference. Furthermore, all that's needed to tap into
> it is a $30 HomePlug power line modem, which the company will be giving
> away.
>
> Cinergy isn't the only utility looking at this technology, either. There
> are numerous power companies developing the capability or watching its
> development closely. Internet start-ups like Current Communications are
> waiting in the wings to help the utilities initiate and manage the
service.
>
> It's a potentially huge revenue source for the utilities, with the
> possibility of being a huge revenue drain for the current Internet
> providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
> <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
> <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
> Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
> <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
> <http://finance.yahoo.com/q?s=bls&d=t> - News
> <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications* (NYSE:
> SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
> <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional dial-ups
> like *Time Warner's* (NYSE: TWX <http://finance.yahoo.com/q?s=twx&d=t> -
> News <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
> *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
> News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying
attention.
>
> From the look of things, this technology will roll out much faster than
> most people expect. I am certainly willing to give it a try if and when
> it comes to my area. And I recommend you check with your local power
> company to see if it has any plans to implement the technology. If so,
> consider taking a good look at both the stock and the service. It could
> be the next big thing.
>
> /What do you think this new technology means for cable companies like
> Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
> service providers like Time Warner's AOL
> <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
> other Fools on our discussion boards./
>
> /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
> doesn't own shares of any companies mentioned./
>

3472. Re: hula hoop antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 03:50:49 UTC
From: richardharrison@webtv.net
Message-ID: <23483-4046A799-43@storefull-3251.bay.webtv.net>
Source record: 99044

dave wrote:
"Hi, I have read in one of the old ARRL books about a hula loop antenna that only stands about 3 inches high on 10 meters but works like a full size dipole."

There is a related horizontal Hula-Hoop antenna, Fig. 3.35 on page 43 of "Short Wave Listener`s Handbook", a CQ "Technical Series" book by John Schultz, W2EEY. This is probably from a reprint of a "CQ" article.

The antenna looks like a short-circuited 1/4-wave stub, turned up with its conductors into a vertical plane, then coiled into a nearly complete loop.

So, the small loop should tend to have nulls perpendicular to the planes containing the parallel coils made by the stub. Response should be good in the planes of the wires making the two loops. But, the article doesn`t say.

Best regards, Richard Harrison, KB5WZI

3473. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 04:08:54 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c26b9f$1phoun$1@ID-225206.news.uni-berlin.de>
Source record: 99045

Actually, not.
1. the line is mismatched at both ends, 450 balanced to 50 ohm singelended. If you put in or assume transformers for the balanced to unbalanced 450 to 50 ohm conversion at both ends, then it is matched (still assuming that Tx and Ant are 50 ohm resistive.) I have an equation that calculates the loss from a text book. (if the section is mismatched it is not conjugally matched)

2. If I have a 50 ohm load at each end, and a line of impedance Z, 1/2 wavelength long, what does Z have to be for max power transfer? Nothing constrains Z to be a value. Z at 50 is great, Z at 500 is not bad (have to do some matching)
This problem the way it is stated 50 1/2 line 50 is implying that any type of line will do as long as it is 1/2 long, then Z can be 0.01 and Z=20,000

So as long as the matching transformers are in,(assuming the right ones) it is matched max power too.
The Tx out 50 ohm unbalanced is matched to the 450 balanced line 1/2 wavelength long and another transformer back down to 50.

////////////\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\/////////\\\\\\\\\\\\\\\\\\\\\\\\\\\\
\\/\/\/\\/\/\/\\/\\/\\\/\\/\/\/\/\/\/\/\

"JDer8745" <jder8745@aol.com> wrote in message
news:20040303103915.22770.00000691@mb-m10.aol.com...
> "Isn't a 50 ohm transmitter conjugately matched to a 50 ohm load
> when fed through 1/2 wavelength of 450 ohm ladder-line?"
>
> ==============
>
> Heck yes, I'm assuming u mean 50 + j 0 Ohms.
>
> 73 de Jack, K9CUN

3474. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 04:24:45 UTC
From: richardharrison@webtv.net
Message-ID: <11836-4046AF8D-57@storefull-3255.bay.webtv.net>
Source record: 99046

Art, KB9MZ wrote:
"Never tried out a loop antenna myself but again that is an antenna that uses coupling just like a Q multiplier and so the filter is the antenna!"

At times that may be true. Armstrong discovered the virtue of regeneration. He found he could not only increase sensitivity by sending a signal through an amplifier again and again, but he could sharpen the selsctivity too. He used an oscillator circuit as an amplifier but adjusted its feedback just below the point of breaking into oscillation. He found that a coil with a Q of 100 could be used in a circuit with a gain of 40 to simulate the selectivity of a coil with a Q of 4000.

Best regards, Richard Harrison, KB5WZI

3475. Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 05:04:08 UTC
From: Jason Dugas <kb5urq@hotmail.com>
Message-ID: <104de6gfbuqgn13@corp.supernews.com>
Source record: 99047

The 1994 ARRL Handbook states that I should avoid any contact between reinforcement bars and metallic objects in the base of the tower, itself, since it would provide a direct discharge path for lightning through the base. "Should such a discharge occur, the concrete base would likely explode and bring about the collapse of the tower."

Another amateur and myself argued over whether, in the entire history of the world, this ever happened???? Has anyone or do you know of anyone directly that has had catastrophic failure of a tower, because of the concrete base exploding? This seems like a rather remote possibility, but I'd like to hear any horror stories you might have with this and whether anyone has photos of an "exploded concrete base" due to lightning.

I realize its certainly possible and the physics is there to make it happen, but has anyone screwed up a tower so badly that the concrete base exploded and the tower collapsed??

Thanks & 73,

Jason

3476. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 05:38:41 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <c26fd1jhn1@mail.specsol.com>
Source record: 99048

Jason Dugas <kb5urq@hotmail.com> wrote:
> The 1994 ARRL Handbook states that I should avoid any contact between
> reinforcement bars and metallic objects in the base of the tower, itself,
> since it would provide a direct discharge path for lightning through the
> base. "Should such a discharge occur, the concrete base would likely
> explode and bring about the collapse of the tower."

> Another amateur and myself argued over whether, in the entire history of the
> world, this ever happened???? Has anyone or do you know of anyone directly
> that has had catastrophic failure of a tower, because of the concrete base
> exploding? This seems like a rather remote possibility, but I'd like to
> hear any horror stories you might have with this and whether anyone has
> photos of an "exploded concrete base" due to lightning.

> I realize its certainly possible and the physics is there to make it happen,
> but has anyone screwed up a tower so badly that the concrete base exploded
> and the tower collapsed??

> Thanks & 73,

> Jason

Beaten to death many times in this news group.

Do a google search of this group with the terms concrete lightning explosion
and see LOTS of discussion.

--
Jim Pennino

Remove -spam-sux to reply.

3477. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 07:02:23 UTC
From: richardharrison@webtv.net
Message-ID: <25069-4046D47F-151@storefull-3257.bay.webtv.net>
Source record: 99049

John Smith wrote:
"Actually not."

Actually so.

The input impedance of a 1/2-wave section of dissipationless line is a repeat of its terminal impedance. The 50-ohm terminal impedance will be repeated as the input impedance at the sending end of the 450-ohm line. Likewise, the 50-ohm impedance connected to the sending end of the of the 450-ohm line will be repeated at the output end of the 459-ohm line. Cecil`s example is symmetrical. There are no lossless lines but practical lines are close enough.

Best regards, Richard Harrison, KB5WZI

3478. Re: Guy Insulators??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 08:10:20 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <qvod40p83i08po066j3dcqufkei55ll562@4ax.com>
Source record: 99050

On Thu, 04 Mar 2004 01:29:54 GMT, Irv Finkleman <finkirv@shaw.ca>
wrote:

>Mike Luther wrote:
>>
>> MFJ also sells them now.
>>
>Not to knock MFJ too badly, but would you trust your tower guyed
>with insulators from MFJ? Caveat Emptor!

If installed properly nothing happens if one breaks except the two
sections of guy line are now attached to each other. course it's a
pain to have to put in temporary guys while replacing the broken
insulator.

IOW, I don't trust any insulator.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
>Irv VE6BP

3479. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 11:39:05 UTC
From: Dave <noone@nowhere.com>
Message-ID: <O7KdnfYYw-H5iNrd4p2dnA@crocker.com>
Source record: 99051

"Jason Dugas" <kb5urq@hotmail.com> wrote in message
news:104de6gfbuqgn13@corp.supernews.com...
> The 1994 ARRL Handbook states that I should avoid any contact between
> reinforcement bars and metallic objects in the base of the tower, itself,
> since it would provide a direct discharge path for lightning through the
> base. "Should such a discharge occur, the concrete base would likely
> explode and bring about the collapse of the tower."
>
> Another amateur and myself argued over whether, in the entire history of
the
> world, this ever happened???? Has anyone or do you know of anyone
directly
> that has had catastrophic failure of a tower, because of the concrete base
> exploding? This seems like a rather remote possibility, but I'd like to
> hear any horror stories you might have with this and whether anyone has
> photos of an "exploded concrete base" due to lightning.
>
> I realize its certainly possible and the physics is there to make it
happen,
> but has anyone screwed up a tower so badly that the concrete base exploded
> and the tower collapsed??
>
> Thanks & 73,
>
> Jason
>
>
it is possible for steam explosions to blow pieces out of the surface of
concrete structures but i have never heard of one big enough to damage a
base enough to threaten the structure.

3480. Counterpoise compromised?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 11:53:11 UTC
From: Simon <simon@nothing.net>
Message-ID: <c275cl$1phpok$1@ID-195980.news.uni-berlin.de>
Source record: 99052

Hi there,

Just womdered if the performance of a counterpoise is compromised if it is coiled up rather than laid out straight? I have a whole bunch of quarter wave counterppise wires for my end fed long wire. Am I shortening their electrical length by coiling them?

Regards,

Simon

3481. Re: MP-1 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 12:04:42 UTC
From: Yves Dussault <yvesNOdussault@videotron.ca>
Message-ID: <8o6e409osh54m7gks7cc2kid9ir1lk4jfs@4ax.com>
Source record: 99053

Thanks for the suggestion about the radials.
Now, I am just beginning to build the K1!
Lots of fun ahead!
It reminds me of my Heathkit days!
73's
VE2ATD

3482. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 13:40:57 UTC
From: w9dmk@crosslink.net
Message-ID: <404731c0.961672@news.crosslink.net>
Source record: 99054

On Wed, 3 Mar 2004 22:08:54 -0600, "John Smith" <pani@yahoo.com>
wrote:

>Actually, not.
>1. the line is mismatched at both ends, 450 balanced to 50 ohm singelended.
>If you put in or assume transformers for the balanced to unbalanced 450 to
>50 ohm conversion at both ends, then it is matched (still assuming that Tx
>and Ant are 50 ohm resistive.) I have an equation that calculates the loss
>from a text book. (if the section is mismatched it is not conjugally
>matched)

I think we have some fertile ground here, ready for plowing.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

3483. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 13:53:28 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c27cdo$1qfjr8$1@ID-225206.news.uni-berlin.de>
Source record: 99055

But using that "simplification", 1/2 wave repeats terminal impedance, allows one to ignore line matching entirely.

It could be balanced lines of 2,000 ohms, or coax of 5 ohms, both of these according to the simplification work the same as long as they are 1/2 wave. Additionally, it could be zip cord, or wires just strung about, as the impedance of the feed line is not used in the simplification, and can be modeled by a transmission like of Z ohms.

Checkout "Reference Data for Radio Engineers", Transmission lines, Mismatch and Transducer losses. There are formulas there for this case. The simplification ignores the mismatches at the Tx and Antenna to the line, which causes about 4.43 dB additional "mismatch" loss, in the case of 50,450, 50. This shows up as VSWR. For a 2000 ohm line, the mismatch loss is 10.2 dB. Some of that loss is tuned out if you have an antenna tuner.

The simplification is valid only for 50 ohm lines, or near 50 ohms, perhaps along the way that part got dropped.
(and also because of antenna tuners, Tx out is not 50 ohms, and Antennas are not 50 ohms)

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:25069-4046D47F-151@storefull-3257.bay.webtv.net...
> John Smith wrote:
> "Actually not."
>
> Actually so.
>
> The input impedance of a 1/2-wave section of dissipationless line is a
> repeat of its terminal impedance. The 50-ohm terminal impedance will be
> repeated as the input impedance at the sending end of the 450-ohm line.
> Likewise, the 50-ohm impedance connected to the sending end of the of
> the 450-ohm line will be repeated at the output end of the 459-ohm line.
> Cecil`s example is symmetrical. There are no lossless lines but
> practical lines are close enough.
>
> Best regards, Richard Harrison, KB5WZI
>

3484. Re: Counterpoise compromised?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 14:38:00 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4045e857_5@newsfeed.slurp.net>
Source record: 99056

To some degree. If possible, try running the counterpoises out by
zig-zagging them, running them along a fence, or both.

- Mike KI6PR
El Rancho R.F., CA

"Simon" wrote > Hi there,
>
> Just womdered if the performance of a counterpoise is compromised if it is
> coiled up rather than laid out straight? I have a whole bunch of quarter
> wave counterppise wires for my end fed long wire. Am I shortening their
> electrical length by coiling them?
>
> Regards,
>
> Simon
>
>

3485. FORSALE:GLEN MARTIN HAZER 4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 15:12:22 UTC
From: n2ion@aol.com
Message-ID: <20040304101222.01774.00000879@mb-m22.aol.com>
Source record: 99057

```
FORSALE:GLEN MARTIN HAZER 4
$225 + SHIPPING
```

3486. FS:GE VOTER

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 15:21:58 UTC
From: n2ion@aol.com
Message-ID: <20040304102158.01774.00000887@mb-m22.aol.com>
Source record: 99058

FOR SALE:
GE VOTER WITH CARDS

$175 + SHIPPING

3487. Re: To all you Antenna Efficiency Experts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 15:56:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404751dd$1_8@corp.newsgroups.com>
Source record: 99059

aunwin wrote:
> That is NOT A BUZZ WORD that sounds derogatory!
> You could have asked for a definition instead of spouting something derogatory.

>W5DXP wrote:
>>If the definition is not supplied, "bandwidth" is just a buzzword.

Art, it seems that we are two people separated by a common language.
My statement is a conditional statement and I stand by it. Unless one
specifies the meaning of "bandwidth" for an antenna, "bandwidth" is
meaningless. It's like specifying the gain of an antenna in dB. dB
is always relative to something. Bandwidth is always relative to
something. I don't think the 3 dB standard bandwidth applies to antennas.
A bandwidth figure between the SWR = 5.83:1 points would not be very useful.

FYI, if the 'if' part of a conditional statement is false, then the
entire statement is true, by definition. So if the definition of
"bandwidth" is supplied, my above statement is still true.

And "buzzword" is not derogatory according to my dictionary.

"buzzword - a word or phrase, often sounding authoritative or technical,
that is a vogue term in a particular ... field of study ..."

For antennas, that seems to perfectly describe undefined bandwidth and
undefined gain in dB.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3488. Re: Guy Insulators??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 16:10:53 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <404754DA.24CAC0F9@shaw.ca>
Source record: 99060

Darn, forgot about the interlocking loops! I've never had
to guy anything -- just read about it!

Irv

Roger Halstead wrote:
>
> On Thu, 04 Mar 2004 01:29:54 GMT, Irv Finkleman <finkirv@shaw.ca>
> wrote:
>
> >Mike Luther wrote:
> >>
> >> MFJ also sells them now.
> >>
> >Not to knock MFJ too badly, but would you trust your tower guyed
> >with insulators from MFJ? Caveat Emptor!
>
> If installed properly nothing happens if one breaks except the two
> sections of guy line are now attached to each other. course it's a
> pain to have to put in temporary guys while replacing the broken
> insulator.
>
> IOW, I don't trust any insulator.
>
> Roger Halstead (K8RI & ARRL life member)
> (N833R, S# CD-2 Worlds oldest Debonair)
> www.rogerhalstead.com
>
> >
> >Irv VE6BP

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3489. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 16:21:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4047578f_8@corp.newsgroups.com>
Source record: 99061

John Smith wrote:
> Checkout "Reference Data for Radio Engineers", Transmission lines, Mismatch
> and Transducer losses. There are formulas there for this case. The
> simplification ignores the mismatches at the Tx and Antenna to the line,
> which causes about 4.43 dB additional "mismatch" loss, in the case of
> 50,450, 50. This shows up as VSWR.

There is little actual loss due to the "mismatch loss" since the
system is Z0-matched. Let's add a small length of 50 ohm line.

100W XMTR--50 ohm line---x---1/2WL 450 ohm line----50 ohm balanced load.

Since there are no reflections on the 50 ohm line, the system is Z0-matched
to 50 ohms at point x. (Assume a 9:1 balun at 'x') The 9:1 SWR on the 450 ohm
line causes very little loss and the "mismatch loss" is not really lost because
the forward power on the 450 ohm line is 278 watts, delivering virtually all of
the 100 watts of XMTR power to the load.

It can be illustrated that a steady-state destructive interference event toward
the source due to wave cancellation at point 'x' feeds energy to a constructive
interference event in the direction of the load. This has been understood in the
field of optics for many decades and is how non-glare glass works.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3490. 20m Yagi height

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 16:23:11 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <104haa7itigq9fb@corp.supernews.com>
Source record: 98929

How high does a 20 meter yaga need to be. will 50 feet be enough or do I need 70?

Any recomendations on a foldover tower that I will not have to climb so I can service tha antenna and rotor?

73

W4WEG

3491. Re: Mounting J-Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 16:34:34 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <4047595e.44077968@news.galilei.com>
Source record: 99062

gwatts <gwatts@frontiernet.net> verbositized:

>Gary V. Deutschmann, Sr. wrote:
>> theplanters95@aol.comnospam (Theplanters95) verbositized:
>>
>>
>>>I have a all copper J-pole antenna. What is the best method to mount it? Can
>>>the bottom piece (below the connector) be connected to a tv mast with clamps?
>>
>>
>> Yes, or stuck right onto the top of the mast!
>
>Or make the bottom piece 4 feet long and attach it to your bumper with a
>floor flange. Worked great until that low drive thru :-O
>
Hmmmmmmmmm, I had a multi-band J-Pole mounted to my trunk deck for
years and never had a problem with it. AND it was all copper! Except
for the mounting flange which was brass using brass bolts and nuts.
And on the other side of the trunk I had a home brew Saturn V halo for
6-meters, now talk about something that could rip sheet metal apart,
that was the baby that could do it!
There was NO room on the bumper for anything else, it already had 6
whips chained to it. Looked like a picket fence with a basketball
hoop on it cruising on down the road!

TTUL
Gary

3492. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 16:50:21 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0403040850.664252d6@posting.google.com>
Source record: 99063

jimp@specsol-spam-sux.com wrote in message news:<c26fd1jhn1@mail.specsol.com>...
>
> Beaten to death many times in this news group.
>
> Do a google search of this group with the terms concrete lightning explosion
> and see LOTS of discussion.

And I did, but I do not think 20 hits are a LOT of discussion. All of
them are 'what if' and other theoretical stuf. None of them however
claim they really had an explosion and tower collapse....

Together with Jason, I am also very curious about 'real experiences'.

Arie

3493. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 17:13:36 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <c27o40$l8p$1@mail.specsol.com>
Source record: 99064

4nec2@gmx.net wrote:
> jimp@specsol-spam-sux.com wrote in message news:<c26fd1jhn1@mail.specsol.com>...
> >
> > Beaten to death many times in this news group.
> >
> > Do a google search of this group with the terms concrete lightning explosion
> > and see LOTS of discussion.

> And I did, but I do not think 20 hits are a LOT of discussion. All of
> them are 'what if' and other theoretical stuf. None of them however
> claim they really had an explosion and tower collapse....

> Together with Jason, I am also very curious about 'real experiences'.

> Arie

About 20 threads, but a lot of discussion.

A quote from a book by Polyphaser can be found at:
http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&oe=UTF-8&selm=xAkx8.19285%24uV.10415%40nwrddc01.gnilink.net&rnum=8

"It is a common misconception to think that a lightning strike will blow up a concrete pad. However, consider first, a myth-perpetuating case of an improperly designed system where the tower leg "J"-bolts are imbedded directly into the concrete pad. In this case, due to the poor nature of the tower ground system, each of these Jbolts will actually share a significant amount of strike current which in turn will flow through the concrete. Since the surface area interface between the J-bolts and the concrete is small, the surge current density is very large. The corresponding heat generated by the energy transfer can turn the concrete moisture into steam and possibly crack the pad. We have only seen this happen once on a mountain top in the Nevada desert. However, a few poorly implemented occurrences can give a valuable technique a bad reputation. If during construction, all of the rebar in the concrete pad becomes an integral part of your ground system, the overall surge current density will be several orders of magnitude lower than the myth-perpetuating case above. With the surge current distributed over all of the rebar there will be little to no opportunity to develop the temperatures necessary to vaporize the imbedded moisture. The pad will not crack."

In other words, do it right, weld it all together and there is no problem.

I suppose someone could do a really horrid installation and...

--
Jim Pennino

Remove -spam-sux to reply.

3494. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 17:31:19 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Iv-dndGMLdJv-trdRVn-tA@crocker.com>
Source record: 99065

<jimp@specsol-spam-sux.com> wrote in message
news:c27o40$l8p$1@mail.specsol.com...
> 4nec2@gmx.net wrote:

> In other words, do it right, weld it all together and there is no problem.

OH NO! don't say that! but i guess its too late, the weld vs tie argument
is probably already off and running.

3495. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 17:46:28 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <c27q1kqtq1@mail.specsol.com>
Source record: 99066

Dave <noone@nowhere.com> wrote:

> <jimp@specsol-spam-sux.com> wrote in message
> news:c27o40$l8p$1@mail.specsol.com...
> > 4nec2@gmx.net wrote:

> > In other words, do it right, weld it all together and there is no problem.

> OH NO! don't say that! but i guess its too late, the weld vs tie argument
> is probably already off and running.

If you search through the archives, you will find the references from
reputable sources (i.e. manufacturers and engineers that do it for a living
as opposed to Joe from Peach Pit GA) that say the weld prevents (relative)
high resistance hot spots from occurring.

--
Jim Pennino

Remove -spam-sux to reply.

3496. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 18:10:27 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <l6se40lu421uh9akgfiusob2ik8s91acnl@4ax.com>
Source record: 99067

On Thu, 4 Mar 2004 17:13:36 +0000 (UTC), jimp@specsol-spam-sux.com
wrote:

>4nec2@gmx.net wrote:
>> jimp@specsol-spam-sux.com wrote in message news:<c26fd1jhn1@mail.specsol.com>...
>> >
>> > Beaten to death many times in this news group.
>> >
>> > Do a google search of this group with the terms concrete lightning explosion
>> > and see LOTS of discussion.
>
>> And I did, but I do not think 20 hits are a LOT of discussion. All of
>> them are 'what if' and other theoretical stuf. None of them however
>> claim they really had an explosion and tower collapse....
>
>> Together with Jason, I am also very curious about 'real experiences'.
>
>> Arie
>
>About 20 threads, but a lot of discussion.
>
>A quote from a book by Polyphaser can be found at:
>http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&oe=UTF-8&selm=xAkx8.19285%24uV.10415%4
0nwrddc01.gnilink.net&rnum=8
>
>
>"It is a common misconception to think that a lightning strike will blow up
>a concrete pad. However, consider first, a myth-perpetuating case of an
>improperly designed system where the tower leg "J"-bolts are imbedded
>directly into the concrete pad. In this case, due to the poor nature of the
>tower ground system, each of these Jbolts will actually share a significant
>amount of strike current which in turn will flow through the concrete. Since
>the surface area interface between the J-bolts and the concrete is small,
>the surge current density is very large. The corresponding heat generated
>by the energy transfer can turn the concrete moisture into steam and possibly
>crack the pad. We have only seen this happen once on a mountain top in the
>Nevada desert. However, a few poorly implemented occurrences can give a
>valuable technique a bad reputation. If during construction, all of the
>rebar in the concrete pad becomes an integral part of your ground system,
>the overall surge current density will be several orders of magnitude lower
>than the myth-perpetuating case above. With the surge current distributed
>over all of the rebar there will be little to no opportunity to develop the
>temperatures necessary to vaporize the imbedded moisture. The pad will not
>crack."

>
>In other words, do it right, weld it all together and there is no problem.
>
>I suppose someone could do a really horrid installation and...

If you read a little farther they also recommend that the tower concrete rebar not be the only ground for the tower. Other ground rods and radials are also recommended.

I have seen a couple of tower pads partially exploded from lightning strikes. These were on towers that the J bolts were just in the concrete and not attached to the rebar and no other ground connection to the tower legs. It blew a chunk of concrete out exposing one of the J bolts almost completely.

For the handbook to recommend not having contact with metal objects in the tower base, I wonder how they think the tower should be attached to the concrete base?

73
Gary K4FMX

3497. Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 18:18:46 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <aqK1c.176934$jk2.646180@attbi_s53>
Source record: 99068

Why must only series circuits be considered for radiators?.

What is it about parallel circuits that make them
unsuitable?

Is stagger tuning a parallel circuit ?

Regards
Art

3498. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 18:30:02 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c27sjo$1q9tn9$1@ID-225206.news.uni-berlin.de>
Source record: 98969

Agreed that adding a 9:1 balun (impedance match) will have little mismatch loss at x and all the Tx power will be "presented" to the antenna port. If their is a matching section of 450 to 50 (another 9:1) balanced at the antenna then there should be no reflections due to impedance mismatches at the antenna, and all of the power goes out the antenna.

If the antenna is not 50 ohms, or the balun from 450 to 50 at the antenna is missing, then part of the power is reflected back into the Tx output.

What the Tx source does with that depends upon the design of the final Amplifier stage, some change output impedance, some go unstable, many cut back Power out. If at a higher frequency one can use a circulator, and dump the reflected power into a 50 ohm dummy load and keep the Tx safe (also good in suppressing transmitter IM).

If the Tx source reflects the power back out, then the Tx source can "drive that amount of power out into a higher VSWR", which means that Tx source can accommodate loads around 50 ohms and keep Power output to spec. Which means that there is no problem if all the mismatches from the antenna (not being 50 ohms), antenna/line mismatch, line/Tx mismatch etc. all add up to be less than a 3:1 VSWR or so for mobile FM. Probably higher for Ham bands.

But one needs to keep an eye on the Tx output impedance as it changes, then the load presented to the antenna (looking back into the line) will change, not be close to 50 ohms, which can change antenna pattern (at higher frequencies). One could put in a resistive pad to stabilize the impedance at the Tx output, but why waste the power? Antenna tuners make sense at the lower frequencies, they match up the strange loads, most of the mismatches and Tx output,and maximize power output.

The optics example is good, as the anti reflective coatings are 1/4 wave thick, and the coating constant (speed of light in the material) is the square root of the product of Air and Glass, it is an optical matching section. Need a coating on both sides of the glass.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:4047578f_8@corp.newsgroups.com...
> John Smith wrote:
> > Checkout "Reference Data for Radio Engineers", Transmission lines, Mismatch
> > and Transducer losses. There are formulas there for this case. The
> > simplification ignores the mismatches at the Tx and Antenna to the line,
> > which causes about 4.43 dB additional "mismatch" loss, in the case of
> > 50,450, 50. This shows up as VSWR.
>
> There is little actual loss due to the "mismatch loss" since the

> system is Z0-matched. Let's add a small length of 50 ohm line.
>
> 100W XMTR--50 ohm line---x---1/2WL 450 ohm line----50 ohm balanced load.
>
> Since there are no reflections on the 50 ohm line, the system is
Z0-matched
> to 50 ohms at point x. (Assume a 9:1 balun at 'x') The 9:1 SWR on the 450
ohm
> line causes very little loss and the "mismatch loss" is not really lost
because
> the forward power on the 450 ohm line is 278 watts, delivering virtually
all of
> the 100 watts of XMTR power to the load.
>
> It can be illustrated that a steady-state destructive interference event
toward
> the source due to wave cancellation at point 'x' feeds energy to a
constructive
> interference event in the direction of the load. This has been understood
in the
> field of optics for many decades and is how non-glare glass works.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3499. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 18:55:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40477bf5_2@127.0.0.1>
Source record: 98970

John Smith wrote:
> Agreed that adding a 9:1 balun (impedance match) will have little mismatch
> loss at x and all the Tx power will be "presented" to the antenna port.

Oh Boy, I really screwed up. Replace that 9:1 balun with a 1:1 balun.
I was very stupid to have said 9:1. A 9:1 balun would reduce that 50
ohm Z0-match to 5.56 ohms thus creating a mismatch.
--
73, Cecil, W5DXP

3500. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 19:04:48 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40477e1d_2@127.0.0.1>
Source record: 98971

Cecil Moore wrote:
> 100W XMTR--50 ohm line---x---1/2WL 450 ohm line----50 ohm balanced load.
>
> Since there are no reflections on the 50 ohm line, the system is Z0-matched
> to 50 ohms at point x. (Assume a 9:1 balun at 'x') ...

HEY EVERYONE, I DIDN'T MEAN A 9:1 BALUN AT 'X'. I MEANT A 1:1 BALUN
AT 'X'. THAT WAS A REALLY, REALLY STUPID BOO-BOO ON MY PART.
--
73, Cecil, W5DXP

3501. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 19:13:56 UTC
From: Dave <noone@nowhere.com>
Message-ID: <mOKdnWCu_dFi4trd4p2dnA@crocker.com>
Source record: 98972

<jimp@specsol-spam-sux.com> wrote in message
news:c27q1kqtq1@mail.specsol.com...
> Dave <noone@nowhere.com> wrote:
>
> > <jimp@specsol-spam-sux.com> wrote in message
> > news:c27o40$l8p$1@mail.specsol.com...
> > > 4nec2@gmx.net wrote:
>
> > > In other words, do it right, weld it all together and there is no
problem.
>
> > OH NO! don't say that! but i guess its too late, the weld vs tie
argument
> > is probably already off and running.
>
> If you search through the archives, you will find the references from
> reputable sources (i.e. manufacturers and engineers that do it for a
living
> as opposed to Joe from Peach Pit GA) that say the weld prevents (relative)
> high resistance hot spots from occurring.

and if you search through other archives you will find that only in special cases, and with very specific requirements, is welding of rebar done. the standard method is wire ties and is quite adequate for tower bases.

3502. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 19:16:54 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404780ea_2@127.0.0.1>
Source record: 98973

John Smith wrote:
> If the antenna is not 50 ohms, or the balun from 450 to 50 at the antenna is
> missing, then part of the power is reflected back into the Tx output.

Just as I drew it, with a 1:1 balun, the system is Z0-matched. No
reflections reach the TX output. Saying a 9:1 balun was a huge mistake.
That's not what I meant. I certainly meant a 1:1 balun.

> The optics example is good, as the anti reflective coatings are 1/4 wave
> thick, and the coating constant (speed of light in the material) is the
> square root of the product of Air and Glass, it is an optical matching
> section. Need a coating on both sides of the glass.

Likewise, you can put 1/2WL of thin-film between air and air and still
have a match, i.e. no glare. That's what I did in the following diagram:

100w XMTR--50 ohm feedline--x--1/2WL 450 ohm line--50 ohm load

similar to:

Laser----air-----|---1/2WL thin-film---|---air---
--
73, Cecil, W5DXP

3503. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 19:43:03 UTC
From: "Eike Lantzsch, ZP6CGE" <eikelan@gmx.net>
Message-ID: <slrnc4f1m7.th.eikelan@ID-77364.user.uni-berlin.de>
Source record: 98974

jimp@specsol-spam-sux.com wrote:
> Dave <noone@nowhere.com> wrote:
>
> > <jimp@specsol-spam-sux.com> wrote in message
> > news:c27o40$l8p$1@mail.specsol.com...
> > > 4nec2@gmx.net wrote:
>
> > > In other words, do it right, weld it all together and there is no problem.
>
> > OH NO! don't say that! but i guess its too late, the weld vs tie argument
> > is probably already off and running.
>
> If you search through the archives, you will find the references from
> reputable sources (i.e. manufacturers and engineers that do it for a living
> as opposed to Joe from Peach Pit GA) that say the weld prevents (relative)
> high resistance hot spots from occurring.
>

We have a 100' free standing tower. The J-bolts are welded to the
rebar and the tower is also grounded with an additional ground
system. The tower takes a LOT of direct hits. Up to now we had
neither problem with the concrete base nor with the equipment.
All antennas are grounded too, of course.
Does this count as anecdotal evidence?

Kind regards, Eike from the land of lightning

3504. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 19:51:05 UTC
From: richardharrison@webtv.net
Message-ID: <2806-404788A9-83@storefull-3252.bay.webtv.net>
Source record: 98975

Art KB9MZ wrote:
"Why must only series circuits be considered for radiators?"

It is convenient to follow custom.

Art also wrote:
"What is it about parallel circuits that make them unsuitable?"

We are more familiar with impedance than admittance in most cases due to our instruction.

A parallel resonsant circuit is a high impedance (low admittance).
A series resonant circuit is a low impedance (high admittance).

For a parallel circuit, Q=R/X.
For a series circuit, Q=X/R.

The series circuit has its equivalent parallel circuit.
The parallel circuit has its equivalent series circuit.
The mathematical conversion from one to the other is simple and shown in my 19th edition of the ARRL Antenna Book on page 24-12.
(By coincidence the action of 1//4-wave and 1/2-wave transmission line sections is shown on the next page, 24-13) Commentors on using a 1/2-wave of foreign line inserted in a 50-ohm system, and what the ITT Handbook says should consult the Antenna Book or some other book that not only gives you the basic information but also tells you how to use the information.

Best regards, Richard Harrison, KB5WZI

3505. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 19:59:57 UTC
From: richardharrison@webtv.net
Message-ID: <2806-40478ABD-85@storefull-3252.bay.webtv.net>
Source record: 98976

Art, KB9MZ also wrote:
"Is stagger tuning a parallel circuit?"

Stagger tuning is two or more resonant circuits each tuned to a different frequency. No restriction that I know of requires parallel resonance. You can mix and match.

Best regards, Richard Harrison, KB5WZI

3506. grounding question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 20:22:53 UTC
From: John Shadle <shadle@email.unc.edu>
Message-ID: <Pine.A41.4.44+UNC.0403041520290.31600-100000@login8.isis.unc.edu>
Source record: 98977

Greetings,
I am trying to set up an HF station and don't have a readily available ground at my shack location. I have heard that it's possible to run a wire from the ground connection on your radio, not connected to anything else, as a "fake ground" as long as you cover the end of the wire (if coax, as I'm hoping to do) with teflon tape so that it's not exposed.

I was thinking about using 75 ohm coax for this purpose, but was wondering if that is a bad idea (i.e., 50 ohm coax to attach to the 10m or 20m antenna and then 75 ohm wire for the "ground"). Has anyone else has experience with this set-up?

Thanks,
-john (W4PAH)

3507. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 20:33:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dh3f40dbdj79oa5o0nu89trijvifktk2qn@4ax.com>
Source record: 98978

On Thu, 04 Mar 2004 18:18:46 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

>Why must only series circuits be considered for radiators?.

Hi Art,

I don't know if there's a "must" to this. Every series circuit can be seen as a parallel circuit; and on the flip side, every parallel circuit can be seen as a series circuit. It is all a matter of where you put your leads to drive/measure/load/receive.... The same components vary only slightly in frequency from their being series resonant or parallel resonate. Without that drive/measure/load/receive path, there is no energy transfer and power consumption is all strictly a matter of component ohmic loss.

>What is it about parallel circuits that make them unsuitable?

They are used every day to load up halfwave verticals, which in turn are also parallel equivalent circuits. The input to the parallel interface is performed through divider action (usually a tapped coil, but could be through a capacitor divider).

>Is stagger tuning a parallel circuit ?

No, but it could be. Stagger tuning, by convention is a chain of separately tuned circuits, be they RC, RL, or LC (or, of course RLC). One RC or RL circuit exhibits a 6dB/Octave or 10dB/Decade roll-off. One LC circuit exhibits twice that or a 12dB/Octave or 20dB/Decade roll-off. Again, it is all a matter of connections for the identical components (which will show a slight shift in parallel to series resonance frequency - which is to say it is application dependent).

Two RC or two RL, or one RC with one RL in cascade constitute "stagger tuning" irrespective of what frequencies their roll-off occur at (this sets the stage for Bandwidth) and their sum contribution equal roughly one LC circuit (which does not qualify as "stagger tuned") as long as they share the same characteristic frequency (where the roll-off occurs which is generally defined at the 3dB inflection).

Now, as to the expression "roll-off" used liberally above. All such circuits may be called "de-emphasis" (where roll-off is evident) or "pre-emphasis" (where roll-up would be more descriptive). The application is strictly a matter of where the drive is applied, and where the load takes its output.

73's
Richard Clark, KB7QHC

3508. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 20:46:58 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <6BM1c.116305$4o.147894@attbi_s52>
Source record: 98979

This is silly..... and you can't blame this on web tv.

Not one answer to any of the questions that anybody can hang their hat on!,
Just talking out loud from a book that fell open at a page. When are you
going to make some sense with your responses, most of us know and use the
formulas that you keep regurgitating but only when they are relavent.

Did your posting get cut short and the answers destroyed or did you forget
why you are posting?

There are three simple questions only. Simple answers should
suffice..... if..... you know your stuff.
If you find the answers to the simple questions in a book then please let me
know and I can read it in context for myself and I will thank you..

When Johny Carson gave the answers first on his show and one then had to
find a suitable question for it it was funny first time around only, so you
should quit doing it.
If you don't know the answers then it O.K. you don't have to respond if you
don't know, certainly better than verbal diarrea.
Art

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:2806-404788A9-83@storefull-3252.bay.webtv.net...
> Art KB9MZ wrote:
> "Why must only series circuits be considered for radiators?"
>
> It is convenient to follow custom.
>
> Art also wrote:
> "What is it about parallel circuits that make them unsuitable?"
>
> We are more familiar with impedance than admittance in most cases due to
> our instruction.
>
> A parallel resonsant circuit is a high impedance (low admittance).
> A series resonant circuit is a low impedance (high admittance).
>
> For a parallel circuit, Q=R/X.
> For a series circuit, Q=X/R.
>
> The series circuit has its equivalent parallel circuit.
> The parallel circuit has its equivalent series circuit.
> The mathematical conversion from one to the other is simple and shown in
> my 19th edition of the ARRL Antenna Book on page 24-12.
> (By coincidence the action of 1//4-wave and 1/2-wave transmission line

> sections is shown on the next page, 24-13) Commentors on using a
> 1/2-wave of foreign line inserted in a 50-ohm system, and what the ITT
> Handbook says should consult the Antenna Book or some other book that
> not only gives you the basic information but also tells you how to use
> the information.
>
> Best regards, Richard Harrison, KB5WZI
>

3509. Re: grounding question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 20:53:12 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <YGM1c.19174$yZ1.5824@newsread2.news.pas.earthlink.net>
Source record: 98980

Hi John -

IMO, an RF ground is a nice-to-have, but not necessarily a must-have.

In my second-floor shack, I have AC grounds only. But I run 1 kW
on 80, 40, 20, 17, 15, 12, and 10, plus 50W on 144 and 440, with
no known problems, or "rf in the shack." The only thing that was
necessary was to do a good job of adjusting the antenna matches.

73, Ed

"John Shadle" <shadle@email.unc.edu> wrote in message
news:Pine.A41.4.44+UNC.0403041520290.31600-100000@login8.isis.unc.edu...
> Greetings,
> I am trying to set up an HF station and don't have a readily available
> ground at my shack location. I have heard that it's possible to run a
> wire from the ground connection on your radio, not connected to anything
> else, as a "fake ground" as long as you cover the end of the wire (if
> coax, as I'm hoping to do) with teflon tape so that it's not exposed.
>
> I was thinking about using 75 ohm coax for this purpose, but was wondering
> if that is a bad idea (i.e., 50 ohm coax to attach to the 10m or 20m
> antenna and then 75 ohm wire for the "ground"). Has anyone else has
> experience with this set-up?
>
> Thanks,
> -john (W4PAH)
>

3510. Re: Lightning Strike & Concrete Base Explosion

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 20:54:08 UTC
From: richardharrison@webtv.net
Message-ID: <6268-40479770-191@storefull-3256.bay.webtv.net>
Source record: 98982

Dave wrote:
"The standard method is wire ties and is quite adequate for tower bases."

I lost count decades ago on the towers I`ve installed. The peril is high-density current directly through concrete which always contains moisture which has not yet reacted with the cement. This is still true after a thousand years, but the concrete is still strengthening as the reaction continues.

Solution to the lightning vulnerability is to bypass the tower base with multiple high-conductivity paths. It`s customary to attach a heavy copper cable to each tower leg and route these cables outside the tower base to their individual ground rods. You don`t do this on a medium wave broadcast tower as 120 radials are ground enough for the tower which rests on insulators.

Best regards, Richard Harrison, KB5WZI

3511. small 76cm dish antenna with free to air satellite programs. Setup help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 21:00:52 UTC
From: of2net@yahoo.com
Message-ID: <7a2c4e95.0403041300.448d08f1@posting.google.com>
Source record: 98981

I have been learning all I can about TVRO, but mostly I see
information on c-band and 10' BUDs. Okay, I understand that you need a
BUD for C-Band, but for Ku-Band one can get by with a 76cm dish? I
don't have permission for a BUD in my association, but 76cm dish is
ok. I have been trying to setup a system using samsung 3800 receiver,
a dual LNB, and a DiSeqC motor. Looks like I am from mars since no one
else seems to care much about it. I have about 8 basic questons.
Rather than describe each question, I have taken pictures of actual
equipment and also satellite view of the ground where I am setup. I
would appreciate it if you could look at my web page with questions
and anotations about this setup.
Here is the link for the 8 questions.

http://www.wrentham.com/dish.html

Any help in this regard will be greatly appreciated.

Thanks,

PP

3512. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 21:08:03 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c285v3$8gh$1@newshost.mot.com>
Source record: 98983

"aunwin" <aunwin@insightbb.com> wrote in message
news:aqK1c.176934$jk2.646180@attbi_s53...
> Why must only series circuits be considered for radiators?.

They aren't. Series circuits are series circuits , radiators are
radiators. They are different things.
>
> What is it about parallel circuits that make them
> unsuitable?

Suitable for what?

>
> Is stagger tuning a parallel circuit ?
>
> Regards
> Art

This question needs to be finished. A parallel circuit can't be stagger
tuned.

Troll??

--
Steve N, K,9;d, c. i My email has no u's.

3513. Re: grounding question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 21:25:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e17f401cmk1dsg3v0e7co30ug26ifreub0@4ax.com>
Source record: 98984

On Thu, 4 Mar 2004 15:22:53 -0500, John Shadle <shadle@email.unc.edu>
wrote:

>Greetings,
>I am trying to set up an HF station and don't have a readily available
>ground at my shack location. I have heard that it's possible to run a
>wire from the ground connection on your radio, not connected to anything
>else, as a "fake ground" as long as you cover the end of the wire (if
>coax, as I'm hoping to do) with teflon tape so that it's not exposed.
>
>I was thinking about using 75 ohm coax for this purpose, but was wondering
>if that is a bad idea (i.e., 50 ohm coax to attach to the 10m or 20m
>antenna and then 75 ohm wire for the "ground"). Has anyone else has
>experience with this set-up?
>
>Thanks,
>-john (W4PAH)

Hi John,

You have half described what is called a virtual ground. Not just any
length of wire so connected as you describe to the transmitter will
perform the job.

It is, in effect, the other half of your antenna, or for the sake of
reducing complexity, it is a quarter wavelength counterpoise that puts
the shell of your transmitter at neutral (the transmitter is sitting
halfway between two points of high RF potential).

Just as you have an antenna tuner, you need its correlative in this
lead - a ground tuner. There are such devices available commercially
called virtual grounds which can be identical to antenna tuners,
except they connect between this lead and your transmitter's ground,
and you peak the coil current indicator. When peaked, that indicates
the shell of the transmitter is in a low Z (high current) state, and
the end of that wire now supporting a high Z (high voltage) state.

73's
Richard Clark, KB7QHC

3514. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 21:36:22 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <qjN1c.179321$uV3.759861@attbi_s51>
Source record: 98985

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:dh3f40dbdj79oa5o0nu89trijvifktk2qn@4ax.com...
> On Thu, 04 Mar 2004 18:18:46 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
>
> >Why must only series circuits be considered for radiators?.
>
> Hi Art,
>
> I don't know if there's a "must" to this.

At last.... at last somebody said
'I don't know'
Perhaps Walter will now say he doesn't know!

Every series circuit can be
> seen as a parallel circuit; and on the flip side, every parallel
> circuit can be seen as a series circuit. It is all a matter of where
> you put your leads to drive/measure/load/receive.... The same
> components vary only slightly in frequency from their being series
> resonant or parallel resonate. Without that
> drive/measure/load/receive path, there is no energy transfer and power
> consumption is all strictly a matter of component ohmic loss.

Yes, partially understood , so to the question......

>
> >What is it about parallel circuits that make them unsuitable?
>
> They are used every day to load up halfwave verticals, which in turn
> are also parallel equivalent circuits.

Did you mean that? A halfwave vertical is a parallel circuit!

The input to the parallel
> interface is performed through divider action (usually a tapped coil,
> but could be through a capacitor divider).

Yes I know that but the question did say antennas didn't it?

You gave an answer to a question that was not asked. What you are refering
to is not for its radiation attributes is it? I hope we are not going into a
multi heading thread mode in less than 12 hours.

> >Is stagger tuning a parallel circuit ?
>
> No, but it could be. Stagger tuning, by convention is a chain of

> separately tuned circuits, be they RC, RL, or LC (or, of course RLC).

You mentioned the all important word of "tuned" so all of the above are
parallel circuits....right?

> One RC or RL circuit exhibits a 6dB/Octave or 10dB/Decade roll-off.
> One LC circuit exhibits twice that or a 12dB/Octave or 20dB/Decade
> roll-off. Again, it is all a matter of connections for the identical
> components (which will show a slight shift in parallel to series
> resonance frequency - which is to say it is application
dependent).

I totally miss this point and probably the blame is mine. I think you are
saying that yes, they are parallel circuits, but you have an exception that
you want to point out i.e.slight shift in parallel to series..........

Not sure if you are saying 'yes'. I personaly think it is a parallel
circuit to which I would answer 'yes'.
Are you asking for some wriggle room? Two elements that are physically
separated is much too hard for me to describe as a series circuit. So I ask
the question in the context of the first two questions to prevent answers to
the like of 'just habit.'
Now I am not being awkward, believe me or I would not have responded. Force
12 has stagger tuning, if it is series devised then it gives more ammo to
the 'do not use parallel circuits for antennas' argument which seems to be
prevalent with antenna experts.

> Two RC or two RL, or one RC with one RL in cascade constitute "stagger
> tuning" irrespective of what frequencies their roll-off occur at (this
> sets the stage for Bandwidth) and their sum contribution equal roughly
> one LC circuit (which does not qualify as "stagger tuned") as long as
> they share the same characteristic frequency (where the roll-off
> occurs which is generally defined at the 3dB inflection).
>
> Now, as to the expression "roll-off" used liberally above. All such
> circuits may be called "de-emphasis" (where roll-off is evident) or
> "pre-emphasis" (where roll-up would be more descriptive). The
> application is strictly a matter of where the drive is applied, and
> where the load takes its output.

I lost the point that you had in mind with the above and I wish you had not
mentioned bandwidth since it will bring another fork to the thread
>
> 73's
> Richard Clark, KB7QHC

No rudeness intended anywhere Rich.. I seriously need reasonable specific
answers before I spend a lot of money.
Art

3515. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 21:43:46 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <mqN1c.179333$uV3.759646@attbi_s51>
Source record: 98986

Steve, ask me what you want to know about the posting. I am trying to keep
it short and to the point so I assumed ,maybe wrongly, that most were
conversant with antennas. The shorter the question the less mucking around
and surely, only an expert can provide the answers.
Regards
Art
"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:c285v3$8gh$1@newshost.mot.com...
>
> "aunwin" <aunwin@insightbb.com> wrote in message
> news:aqK1c.176934$jk2.646180@attbi_s53...
> > Why must only series circuits be considered for radiators?.
>
> They aren't. Series circuits are series circuits , radiators are
> radiators. They are different things.
> >
> > What is it about parallel circuits that make them
> > unsuitable?
>
> Suitable for what?
>
> >
> > Is stagger tuning a parallel circuit ?
> >
> > Regards
> > Art
>
> This question needs to be finished. A parallel circuit can't be
stagger
> tuned.
>
>
> Troll??
>
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>

3516. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 21:50:08 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <kwN1c.19237$yZ1.7351@newsread2.news.pas.earthlink.net>
Source record: 98987

Ummmm... sorry, Richard.

I am very familiar with choppers, having designed and built quite
a few in my time. But no engineer I have ever met would refer to
a chopper as a "lossless resistor."

An (ideal) resistor is in the class of passive, linear, time-invariant
devices. A "lossless resistor" would be a 0 Ohm resistor.

A chopper is a time-variant device, and depending on the details,
could be modelled as linear or non-linear on top of that.

The two devices (resistor and chopper) have very little in common,
besides being usable in electronic circuits. One of many differences
(a BIG one for us radio guys) is that the resistor would generate
no radio noise (other than thermal); but the chopper would generate
horrific radio hash, from the chopper frequency to daylight.

As for analogies to power amplifiers, an ideal Class A amplifier
would normally be modelled as an active, linear, time-invariant
device; so it would have some commonality with a resistor.
But the difference between passive and active is huge, of course.

A Class C amplifier would normally be modelled as an active,
non-linear, time-invariant device. There is very little similarity
left to a resistor, except for the time-invariant part. But a sidewalk
is normally time-invariant, too. So we could just as well say a
sidewalk is like a "lossless resistor." Or maybe that would be a
sidewalk with ice on it. ;-)

But to each his own...

Regards, Ed

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:3052-40461220-28@storefull-3258.bay.webtv.net...
> Old Ed wrote:
> "Couild you explain this concept, and/or provide some references?"
>
> Suppose we adjust a variable d-c supply to full-scale indication on an
> external meter. Next, install a chopper (lossless on-off circuit) driven
> at a high frequency to produce a square wave interruption of the d-c
> with a 50% duty cycle, and insert the chopper contacts in series with
> the external meter.
>
> The chopper connects the external meter 50% of the time and disconnercts
> it 50% of the time. The meter reads 50% of full scale.

>
> Another way to reduce the scale reading to 50% is to insert a resistor
> in series with the meter. If it is an 0-1 ma meter and if it has an
> internal resistance of 1000 ohms, insertion of a 1000-ohm resistor in
> series with the meter will reduce the meter scale indication to 50%.
>
> The chopper as part of the meter source eliminates current to the meter
> 50% of the time.
>
> The resistor which has the same effect and produces the same scale
> indication as the chopper on the effective output current exacts its
> loss of 0.0005 amp x 0.5 volt or 0.25 milliwatt during 100% of the time.
>
> The chopper eliminates the power-losing resistor by substituting
> off-time in the power source. The source only supplies the power used by
> the load. With a resistor limiting power to the load, the source
> supplies its loss and the load power.
>
> The power in the load, a meter in our example, is the same using either
> the resistor or the chopper. The resistor is analogous to a Class-A
> amplifier. The chopper is analogous to a Class-C amplifier.
>
> The off-time has the same effective opposition to current to a load as a
> dissipative resistance. As the time-limited currented opposition to load
> current consumes no power, it is called a dissipationless resistance.
>
> Best regards, Richard Harrison, KB5WZI
>

3517. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 22:17:45 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c28a1n$ed0$1@newshost.mot.com>
Source record: 98989

OOPS!

Richard,

Now I understand the source of your "lossless resistance" remark in the class C thread. I respectfully disagree. There is nothing of the sort. I will admit, however that in a Switched case, the concept of resistance *may* be thought of this way, but it is not a good way to look at it. I believe you are taking two things which are not similar and calling them the same. I will point out the error below. It can be verified by experiment rather simply if you wish.

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:3052-40461220-28@storefull-3258.bay.webtv.net...
> Old Ed wrote:
> "Couild you explain this concept, and/or provide some references?"
>
> ...d-c supply to full-scale indication on an external meter.

Therefore we have the situation where:
V out = Ifs x Rm
V out set to the IR drop of the meter at fullscale. All ok so far.

> Next, install a chopper (lossless on-off circuit) ... with a 50% duty cycle...
> ... The meter reads 50% of full scale.

Still ok so far.

> Another way to reduce the scale reading to 50% is to insert a resistor

Yep, still ok.

>
> The resistor which has the same effect ...

Start of the error. I disagree with "same effect". One is a steady state current (resistor), the other a square wave of current (chopper), right? The time average current IS the same. ...HOWEVER...

> and produces the same scale
> indication as the chopper on the effective output current exacts its
> loss of 0.0005 amp x 0.5 volt or 0.25 milliwatt during 100% of the time.

The word "effective" here is not standard as it is the same word we use to denote "producing the same power". Again, it certainly is that the AVERAGE current is obviously the same for both cases.

>
> The chopper eliminates the power-losing resistor by substituting
> off-time in the power source. The source only supplies the power used by
> the load. With a resistor limiting power to the load, the source
> supplies its loss and the load power.

This is indeed correct. The chopper DOES change produce the same
AVERAGE current as the resistor. The added resistor looses some power, the
chopper does not. Now the zinger.

> The power in the load, a meter in our example, is the same using either
> the resistor or the chopper.

Here is where the error is. The POWER in the load (meter) in the
chopper case is not the same as it is in the resistor case! It is...Hold on
to your hat... TWICE as much as in the resistor case!

In the meter only case load power is 1 miliwatt.
In the resistor case the load power is 0.25 miliwatt (half voltage x half
current = 25%)
Or P=I^2 * R which is also 0.25 miliwatt.
In the chopper case the load power is 0.5 Miliwatt!

In the chopper case, the RMS current is = Imax x square-root(duty-cycle).
This is 1ma * 0.707 or 0.5 miliwatt.

See
http://www.irf.com/technical-info/an949/append.htm
For verification of the square root of the duty cycle formula.

You can easily verify this since a power difference should be easily
observed by finger-and -clock method. Set up the experiment with a resistor
and power supply which gives some power which can be felt as a temperature
rise within, say 10 seconds. I'm guessing somewhere around 0.2 to 1.0 watt.
This is with the two resistors in the circuit. Then subsitute the chopper
(a relay). Twice the power should be evident in a faster rise in
temperature. It should heat up in half the time. I maintain that if it
doesn't, then you did it incorrectly.

> The off-time has the same effective opposition to current to a load as a
> dissipative resistance. As the time-limited currented opposition to load
> current consumes no power, it is called a dissipationless resistance.

This is what I believe would be called a self conflicting term.
Resistance removes power from the circuit in question in all cases, period.
And YES on the proverbial infinite T-line, the power is gone from the
source, never to return. It looks just like a resistor (Steve says with
great confidence, knowing full well that others may disagree, but
nonetheless firm in his beliefe) It *is* LOST.

Perhaps a concept called "Average resistance" might be a subject to discuss.
In matching a class C power amplifier, there has been myriad of words spent
on just what, if anything, is being matched by the output matching network.
Is there an "output" impedance there or not and if so, what is

it....(rhetorical, of course)

Sorry Richard, but I believe you have it wrong this time. Steady state and pulsed must be understood with slightly different principles.
--
73, Steve N, K,9;d, c. i My email has no u's.

3518. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 22:31:40 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <g7O1c.116484$4o.148543@attbi_s52>
Source record: 98988

Richard I am reading your posts because I initiated the post
So for you I will pose it differently so you can quote from all your books legitimately. For you just one question only so you don't wander off as you sometimes do. And yes I will respond because I initiated the thread,yes I will read it.

If radio was just thought of today give the pros and cons between a series circuit and a parallel circuit from which to base a radiator ? Don't put down 'tradition' or 'habit' just put a list of pro's and con for each side . Just to give you a start a series circuit radiator is a dipole. And we will say a parallel circuit radiator is one with at least one capacitive lumped circuit and one inductive lumped circuit in parallel. Keep it simple, don't twist the question around because you know of a special case. Just simple pro and con and you can quote from a book if it provides specific pro and con which will keep things in perspective i.e we know the formulae so there is no need to give your fingers a workout.
Here is a start
A dipole provides a lot of signals at the same time(good)
A parallel circuit can only supply one signal at a time (bad)
Get the idea?
There, I am giving you the benefit of being a antenna guru that has the personal knoweledge that the question obviously requires and where a lot of people are hopelessly adrift.
The question now is a bit long but hopefully for you it will be beneficial.
Art

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:2806-40478ABD-85@storefull-3252.bay.webtv.net...
> Art, KB9MZ also wrote:
> "Is stagger tuning a parallel circuit?"
>
> Stagger tuning is two or more resonant circuits each tuned to a
> different frequency. No restriction that I know of requires parallel
> resonance. You can mix and match.
Two circuits each with a different frequency will couple to each other via back EMF and thus makes it a parallel circuit. You can call it under coupled, over coupled or just coupled but it is a parallel circuit none the less. But let's not get side tracked because you don't know......'restrictions" just factual pro and con or you will wander off again.
Art

> Best regards, Richard Harrison, KB5WZI
>

3519. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 22:33:23 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c28av4fmn1@newshost.mot.com>
Source record: 98991

"John Smith" <pani@yahoo.com> wrote in message
news:c26b9f$1phoun$1@ID-225206.news.uni-berlin.de...
> Actually, not.
> 1. the line is mismatched at both ends,

John, You missed something. The problem was stated;

"Isn't a 50 ohm transmitter conjugately matched to a 50 ohm load
when fed through 1/2 wavelength of 450 ohm ladder-line?"

The TRANSMITTER "sees" 50 ohms therefore it is. Some discussion can be made for the exact phrasing which says, in effect; "...50 ohm transmitter ...to a 50 ohm load". By this I mean using the phrase "to a 50 ohm load" is a bit misdirecting. In the stated case, the Tx is NOT actually connected *to* the load. It is connected to a 1/2 wave of line. At the Tx output, there is a conjugate match.
I believe the intended situation is that a 1/2 wave of ANY line repeats the load Z at its input. From your comment #2, it appears that you do not know this.

> 2. If I have a 50 ohm load at each end, and a line of impedance Z, 1/2
> wavelength long, what does Z have to be for max power transfer?

Actually, it IS anything! Yea, Yea there are other *practical* considerations...balanced...unbalanced....

--
Steve N, K,9;d, c. i My email has no u's.

> Nothing
> constrains Z to be a value. Z at 50 is great, Z at 500 is not bad (have
to
> do some matching)
> This problem the way it is stated 50 1/2 line 50 is implying that any
type
> of line will do as long as it is 1/2 long, then Z can be 0.01 and Z=20,000
>
> So as long as the matching transformers are in,(assuming the right ones)
it
> is matched max power too.
> The Tx out 50 ohm unbalanced is matched to the 450 balanced line 1/2
> wavelength long and another transformer back down to 50.
>
>
////////////\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\/////////\\\\\\\\\\\\\\\\\\\\\\\\\\\\
> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\/\/\/\\/\/\/\\/\\\/\\/\//\/\/\/\/\/\/\

>
>
> "JDer8745" <jder8745@aol.com> wrote in message
> news:20040303103915.22770.00000691@mb-m10.aol.com...
> > "Isn't a 50 ohm transmitter conjugately matched to a 50 ohm load
> > when fed through 1/2 wavelength of 450 ohm ladder-line?"
> >
> > ==========
> >
> > Heck yes, I'm assuming u mean 50 + j 0 Ohms.
> >
> > 73 de Jack, K9CUN
>
>

3520. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 22:36:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c28b42fse1@newshost.mot.com>
Source record: 98992

and *I* got suckered in... Oh well...

-- 73
Steve N, K,9;d, c. i My email has no u's.

"Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
news:404731c0.961672@news.crosslink.net...
> On Wed, 3 Mar 2004 22:08:54 -0600, "John Smith" <pani@yahoo.com>
> wrote:
>
> >Actually, not.
> >1. the line is mismatched at both ends, 450 balanced to 50 ohm
singelended.
> >If you put in or assume transformers for the balanced to unbalanced 450
to
> >50 ohm conversion at both ends, then it is matched (still assuming that
Tx
> >and Ant are 50 ohm resistive.) I have an equation that calculates the
loss
> >from a text book. (if the section is mismatched it is not conjugally
> >matched)
>
> I think we have some fertile ground here, ready for plowing.
>
> Bob, W9DMK, Dahlgren, VA
> http://www.qsl.net/w9dmk

3521. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 22:36:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2g9f40ds30d2cb2bmrg9q6kkcrd14s0psc@4ax.com>
Source record: 98990

On Thu, 04 Mar 2004 21:36:22 GMT, "aunwin" <aunwin@insightbb.com>
wrote:
>> >What is it about parallel circuits that make them unsuitable?
>>
>> They are used every day to load up halfwave verticals, which in turn
>> are also parallel equivalent circuits.
>
>Did you mean that? A halfwave vertical is a parallel circuit!

That is the longstanding convention. Same thing applies to a one
wavelength dipole. All such are the basis of the J-Pole and the Zepp
(when you strip away their matching sections).

>The input to the parallel
>> interface is performed through divider action (usually a tapped coil,
>> but could be through a capacitor divider).
>
>Yes I know that but the question did say antennas didn't it?

Antennas don't find much application without some method of driving
them. Very few successful halfwave designs exist without matching.
This is because the halfwave vertical, looking like a parallel
circuit, has a considerable amount of Z that rejects power (unless
your rig is a van-de-graff generator). Adding the radiation
resistance to a high Z hardly allows any current into the radiation
resistance. On the other hand, a quarterwave looks like a series
resonant circuit with very low Z, and thus the radiation resistance
absorbs all the power applied. Very simple electronics.

One solution to feeding the halfwave tall vertical is to break it in
half and feed it half way up (where the two sections look like series
resonant, low Z elements feeding the radiation resistance without much
impediment). This is simplified, of course, but it illustrates how
the same circuit can support either a series resonant or parallel
resonant description determined only by the topology of connection.

>You gave an answer to a question that was not asked. What you are refering
>to is not for its radiation attributes is it? I hope we are not going into a
>multi heading thread mode in less than 12 hours.

Matching sections to the J-Pole and the Zepp are contributors to
radiation due to the unbalanced nature of those antennas designs. How
much they contribute is perhaps arguable, but when they are built in
without care, their contribution cannot be denied. The matching
circuits contain both circulating currents and common mode currents.
The common mode currents, as a function of the physical length

compared to wavelength, offer radiation. The radiation may aid, or it
may hinder, but it is there none the less.

>> >Is stagger tuning a parallel circuit ?
>>
>> No, but it could be. Stagger tuning, by convention is a chain of
>> separately tuned circuits, be they RC, RL, or LC (or, of course RLC).
>
>You mentioned the all important word of "tuned" so all of the above are
>parallel circuits....right?

No, but they could be. The application of drive and loads determine
the topology:

>> One RC or RL circuit exhibits a 6dB/Octave or 10dB/Decade roll-off.
>> One LC circuit exhibits twice that or a 12dB/Octave or 20dB/Decade
>> roll-off. Again, it is all a matter of connections for the identical
>> components (which will show a slight shift in parallel to series
>> resonance frequency - which is to say it is application
>dependent).
>
>I totally miss this point and probably the blame is mine. I think you are
>saying that yes, they are parallel circuits, but you have an exception that
>you want to point out i.e.slight shift in parallel to series..........

No, they are NOT parallel - they could be, but there is nothing
inherently parallel and it all depends on the drive and load applied.

> Not sure if you are saying 'yes'. I personaly think it is a parallel
>circuit to which I would answer 'yes'.

No, they are NOT parallel - they could be, but there is nothing
inherently parallel and it all depends on the drive and load applied.

>Force
>12 has stagger tuning, if it is series devised then it gives more ammo to
>the 'do not use parallel circuits for antennas' argument which seems to be
>prevalent with antenna experts.

Force 12 makes many antennas, I will presume you are speaking of some
beam array. Stagger tuning, in that sense, is much akin to the
reflector, radiator, director relationship of the yagi. That design
is stagger tuned, but such stagger tuning is to accomplish various
delays that aid gain in one direction, and negate it in another. Such
stagger tuning is not directly engaged upon for the purpose of
bandwidth, although it may have indirect consequences. I have a beam
array for 440 that employs an LPDA radiator tied into the conventional
reflector and directors. As such it performs stagger tuning for the
purpose of beam forming AND bandwidth.

The elements in the Fan Dipole or the Log Periodic Dipole Array more
closely align to the conventional meaning of stagger tuning. The Fan
Dipole is the most obvious case. It's metaphor would be as many

parallel, series resonant circuits as there are elements, each slightly tuned off from the other, all feeding in series and combining in parallel to average a wider bandwidth response than any single series resonant element.

73's
Richard Clark, KB7QHC

3522. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 22:39:09 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c28b9v$g9m$1@newshost.mot.com>
Source record: 98994

OK, OK, OK. How come voltage dB and power dB are different, huh? Yhy is it
that power dB carry twice the weight of voltage dB?

dB= 10 LOG(power ratio) = 20 LOG(voltage ratio)

Knock yourself out.

--
Steve N, K,9;d, c. i My email has no u's.
he he he
"J. McLaughlin" <JCM@Power-Net.Net> wrote in message
news:104aqsck72s6nfc@corp.supernews.com...
> When a candidate for an EE faculty position visits, someone, usually at
> lunch, will bring the conversation around to the MPTT. If he or she
> does anything other than giggle they do not get my vote.
>
> Let us leave this tar-baby out in the field. 73 Mac N8TT
>
> --
> J. Mc Laughlin - Michigan USA
>
>

3523. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 23:03:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0icf409q6nr9t32isl07a0cj62nbuk6q3d@4ax.com>
Source record: 98993

On Thu, 04 Mar 2004 22:31:40 GMT, "aunwin" <aunwin@insightbb.com>
wrote:
...
> give the pros and cons between a series
>circuit and a parallel circuit from which to base a radiator ?
...
>Just to give you a start a series circuit radiator is a dipole.

>And we will
>say a parallel circuit radiator is one with at least one capacitive lumped
>circuit and one inductive lumped circuit in parallel.
...
>Here is a start
>A dipole provides a lot of signals at the same time(good)
>A parallel circuit can only supply one signal at a time (bad)
>Get the idea?

Hi Art,

A dipole is the most efficient antenna.

The parallel circuit offers loss to an already most efficient antenna.

A dipole is simple to load and often requires no matching.

The parallel circuit is difficult to load and always requires
matching.

A dipole offers a standard of gain.

The parallel circuit offers no change in gain except the prospect of
reducing it through making the antenna smaller to become a resonant
system.

A dipole is a simple construction.

The parallel circuit adds complexity which raises the prospects of
mechanical and electrical failure.

A dipole offers hazardous potentials at its tips.

A parallel circuit double that danger by offering hazardous potentials
at both its tips and its drive point.

A dipole requires isolation/insulation at its tips due to high
potentials.

A parallel circuit requires isolation/insulation at its drive point
AND its tips due to high potentials.

Is that the idea? I presume you can distinguish good/bad.

73's
Richard Clark, KB7QHC

3524. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 23:24:23 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c28dsl$1q7ncd$1@ID-225206.news.uni-berlin.de>
Source record: 98995

Cecil --

I think your right, 1:1 should work fine, with 1/2 wavelength, low loss line.

I was matching to a long line with charestic impedance of 450. But, I think the length of the line must be long (or have loss) before the charestic impedance of the line shows up to really matter. I used to have a program that showed this effect. I installed a 450MHz 500 foot line in Saudi, and measurements had to be careful, because we had a lot of line loss. (we were heating up the Heliax, more than radiating power out the antenna)

But on a short run, lower frequency, there is not enough of the line to make a large effect. (I think it has to be more than about 2-3 dB line loss...), so the Tx output is seeing primarily the load(antenna). And then the 1/2 wavelength will causing a "null" at the Tx output. When I run across the program/formula I post it. It is probably in the same book, same section, too.
''''''

3525. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-04 23:25:21 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <BVO1c.116556$4o.148868@attbi_s52>
Source record: 98996

Thank you ,thank you Richard.
I now have something to think about as to why I have been so
misdirected these past few years where everybody knew I was wrong and I have
yet to reason why. That is why I hoped only experts would respond after
seeing the response to Reg on another thread. Get back to you later if I see
the serious difference of thought that exists between myself and others
regarding where and why I am out in 'left field' (Baseball talk Reg).
Hopefully some other experts will contribute with statements that are
specific, to the point and beyond question that may bring to light some
bogies that are messing me up.
Best regards
Art

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0icf409q6nr9t32isl07a0cj62nbuk6q3d@4ax.com...
> On Thu, 04 Mar 2004 22:31:40 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
> ...
> > give the pros and cons between a series
> >circuit and a parallel circuit from which to base a radiator ?
> ...
> >Just to give you a start a series circuit radiator is a dipole.
>
> >And we will
> >say a parallel circuit radiator is one with at least one capacitive
lumped
> >circuit and one inductive lumped circuit in parallel.
> ...
> >Here is a start
> >A dipole provides a lot of signals at the same time(good)
> >A parallel circuit can only supply one signal at a time (bad)
> >Get the idea?
>
> Hi Art,
>
> A dipole is the most efficient antenna.
>
> The parallel circuit offers loss to an already most efficient antenna.
>
> A dipole is simple to load and often requires no matching.
>
> The parallel circuit is difficult to load and always requires
> matching.
>

> A dipole offers a standard of gain.
>
> The parallel circuit offers no change in gain except the prospect of
> reducing it through making the antenna smaller to become a resonant
> system.
>
> A dipole is a simple construction.
>
> The parallel circuit adds complexity which raises the prospects of
> mechanical and electrical failure.
>
> A dipole offers hazardous potentials at its tips.
>
> A parallel circuit double that danger by offering hazardous potentials
> at both its tips and its drive point.
>
> A dipole requires isolation/insulation at its tips due to high
> potentials.
>
> A parallel circuit requires isolation/insulation at its drive point
> AND its tips due to high potentials.
>
> Is that the idea? I presume you can distinguish good/bad.
>
> 73's
> Richard Clark, KB7QHC

3526. Tower help Long Island??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 00:09:48 UTC
From: fjx1@aol.comnospam
Message-ID: <20040304190948.03354.00000754@mb-m23.aol.com>
Source record: 98997

I have a US Tower MA40 with tilt over base (actually it's 25 years old and was made by Wilson but I think they are the same). The cable that raises it broke. To replace it, I have to tilt the tower and pull it out of the boot that holds it. I'm no longer capable of that kind of work. Can anyone guide me to some I could pay in the Long Island area to tilt it, pull it out and replace the cable. I'll replace winch too.It's not a major tower job, just a lot of labor and touch up. Help?

tks,

gerry K1NY

fjx1@aol.com

3527. Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 01:21:17 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <kflf40p3rl4hf4171fl3800jbi6m9abnmj@4ax.com>
Source record: 98998

Yes

No

Maybe

3528. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 01:24:04 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <UEQ1c.177656$jk2.652540@attbi_s53>
Source record: 98999

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:2g9f40ds30d2cb2bmrg9q6kkcrd14s0psc@4ax.com...
> On Thu, 04 Mar 2004 21:36:22 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
> >> >What is it about parallel circuits that make them unsuitable?
> >>
> >> They are used every day to load up halfwave verticals, which in turn
> >> are also parallel equivalent circuits.
> >>
> >Did you mean that? A halfwave vertical is a parallel circuit!
>
> That is the longstanding convention. Same thing applies to a one
> wavelength dipole. All such are the basis of the J-Pole and the Zepp
> (when you strip away their matching sections).

Well that is new to me, I never consider the matching circuit as part of an
antenna but only a required band aid. Can you point me
to where this is discussed ? (J pole I know nothing about but the others I
would like to read of what you refer to as a parallel circuit) This could
be the point of confusion.

>
> >The input to the parallel
> >> interface is performed through divider action (usually a tapped coil,
> >> but could be through a capacitor divider).
> >>
> >Yes I know that but the question did say antennas didn't it?
>
> Antennas don't find much application without some method of driving
> them. Very few successful halfwave designs exist without matching.
> This is because the halfwave vertical, looking like a parallel
> circuit, has a considerable amount of Z that rejects power (unless
> your rig is a van-de-graff generator). Adding the radiation
> resistance to a high Z hardly allows any current into the radiation
> resistance. On the other hand, a quarterwave looks like a series
> resonant circuit with very low Z, and thus the radiation resistance
> absorbs all the power applied. Very simple electronics.
>
> One solution to feeding the halfwave tall vertical is to break it in
> half and feed it half way up (where the two sections look like series
> resonant, low Z elements feeding the radiation resistance without much
> impediment). This is simplified, of course, but it illustrates how
> the same circuit can support either a series resonant or parallel
> resonant description determined only by the topology of connection.
>

> >You gave an answer to a question that was not asked. What you are
refering
> >to is not for its radiation attributes is it? I hope we are not going
into a
> >multi heading thread mode in less than 12 hours.
>
> Matching sections to the J-Pole and the Zepp are contributors to
> radiation due to the unbalanced nature of those antennas designs. How
> much they contribute is perhaps arguable, but when they are built in
> without care, their contribution cannot be denied. The matching
> circuits contain both circulating currents and common mode currents.
> The common mode currents, as a function of the physical length
> compared to wavelength, offer radiation. The radiation may aid, or it
> may hinder, but it is there none the less.
>
> >> >Is stagger tuning a parallel circuit ?
> >>
> >> No, but it could be. Stagger tuning, by convention is a chain of
> >> separately tuned circuits, be they RC, RL, or LC (or, of course RLC).
> >
> >You mentioned the all important word of "tuned" so all of the above are
> >parallel circuits....right?
>
> No, but they could be. The application of drive and loads determine
> the topology:
>
> >> One RC or RL circuit exhibits a 6dB/Octave or 10dB/Decade roll-off.
> >> One LC circuit exhibits twice that or a 12dB/Octave or 20dB/Decade
> >> roll-off. Again, it is all a matter of connections for the identical
> >> components (which will show a slight shift in parallel to series
> >> resonance frequency - which is to say it is application
> >dependent).
> >
> >I totally miss this point and probably the blame is mine. I think you are
> >saying that yes, they are parallel circuits, but you have an exception
that
> >you want to point out i.e.slight shift in parallel to series.....
>
> No, they are NOT parallel - they could be, but there is nothing
> inherently parallel and it all depends on the drive and load applied.
>
> > Not sure if you are saying 'yes'. I personaly think it is a parallel
> >circuit to which I would answer 'yes'.
>
> No, they are NOT parallel - they could be, but there is nothing
> inherently parallel and it all depends on the drive and load applied.

Well on that note I see a dipole as a single series circuit fed by a
generator(ARRL book), where-as I see a bandpass circuit as a parallel
circuit.

This can be made to LOOK like several series circuits IF and Only IF one discardes the intercoupling factor, and I do not see how one can realistically refer to such an arrangement in any way as a quasi or something else with the term 'series'
.
>
> >Force
> >12 has stagger tuning, if it is series devised then it gives more ammo to
> >the 'do not use parallel circuits for antennas' argument which seems to be
> >prevalent with antenna experts.
>
> Force 12 makes many antennas, I will presume you are speaking of some
> beam array. Stagger tuning, in that sense, is much akin to the
> reflector, radiator, director relationship of the yagi. That design
> is stagger tuned, but such stagger tuning is to accomplish various
> delays that aid gain in one direction, and negate it in another. Such
> stagger tuning is not directly engaged upon for the purpose of
> bandwidth, although it may have indirect consequences.

Oh I will have to leave that for others to comment upon as that is not what I consider stagger tuning to be. I mentioned in another posting what I thought it to be, so obviously there are comments on the way to put me straight, hopefully in a factual way that puts the majority at ease. without a complication factor.

I have a beam
> array for 440 that employs an LPDA radiator tied into the conventional
> reflector and directors. As such it performs stagger tuning for the
> purpose of beam forming AND bandwidth.
>
> The elements in the Fan Dipole or the Log Periodic Dipole Array more
> closely align to the conventional meaning of stagger tuning. The Fan
> Dipole is the most obvious case. It's metaphor would be as many
> parallel, series resonant circuits as there are elements, each
> slightly tuned off from the other, all feeding in series and combining
> in parallel to average a wider bandwidth response than any single
> series resonant element.

I just don't understand what you are saying here, I must understand the parallel circuit part of a zepp or dipole part first to intellegently discuss all this other stuff you are talking about.
The statements you are making on parallel versus series I view as enormous. Read the ARRL book on antennas and they dwell on series circuits as in dipole, why the big difference with this newsgroup? Your comments seem to rotate about phase changes more than it does about coupling as to the main focal point.
No comments on your other posting yet .(pro and con) which suggest the experts are unified on your statements.
I will have to choose my words very, very carefully tomorrow on that one.Up to now I feel fully exposed on what I don't know that which every body else

knows
> 73's
Regards
Art
> Richard Clark, KB7QHC

3529. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 01:40:23 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4047daa7_8@corp.newsgroups.com>
Source record: 99000

Steve Nosko wrote:
> OK, OK, OK. How come voltage dB and power dB are different, huh? Yhy is it
> that power dB carry twice the weight of voltage dB?
>
> dB= 10 LOG(power ratio) = 20 LOG(voltage ratio)

Because log(v^2) = 2*log(v)? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3530. Re: Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 01:51:11 UTC
From: w2du@iag.net
Message-ID: <j2R1c.30110$W74.26517@newsread1.news.atl.earthlink.net>
Source record: 99001

One more, Wes, unh!
Walt

"Wes Stewart" <n7ws@_arrl.net> wrote in message
news:kflf40p3rl4hf4171fl3800jbi6m9abnmj@4ax.com...
> Yes
>
> No
>
> Maybe

3531. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 02:36:54 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <aJR1c.45282$PR3.917056@attbi_s03>
Source record: 99002

aunwin wrote:

> Why must only series circuits be considered for radiators?.

Just thinking out loud. I'm not sure I'm correct but the following seems to make a little sense.

In a series resonant circuit the net reactance is zero. As the frequency is changed slightly from resonance the reactance increases slowly from zero. This is algebraic addition of plus and minus terms.

In a parallel circuit the net reactance is the product of the two terms divided by the sum [and has a high net value]. As the frequency is changed slightly from resonance the net reactance does not change from 'zero' it changes from a high value to a lower value.

My conclusion is that a series circuit more closely matches actual antenna performance as the antenna impedance varies from resonance.

DD

SNIPPED

3532. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 03:01:54 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <C4S1c.179777$uV3.768124@attbi_s51>
Source record: 99003

Hi David
Not sure what you are getting at. You can set up a parallel circuit
that can be resonant on any frequency with minor change to its construction
ala a slight inductance change so there is no need to operate on a non
resonant frequency which is what I see as a huge
plus. Remember I view the parallel circuit in its macro sense in that it is
the radiator.My antennas work that way and computor programs seem to agree
with that position. Can you supply a circuit in radiator form that acts as
you describe so I can see how it differs ?
Appreciate the input as there are only a few real experts and none have sort
to disagree which is a first for this group. Kudoes to you and Richard who
are able to provide honest thought here others are stumped.
Regards
Art

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:aJR1c.45282$PR3.917056@attbi_s03...
> aunwin wrote:
>
> > > Why must only series circuits be considered for radiators?.
>
> Just thinking out loud. I'm not sure I'm correct but the following seems
> to make a little sense.
>
> In a series resonant circuit the net reactance is zero. As the frequency
> is changed slightly from resonance the reactance increases slowly from
> zero. This is algebraic addition of plus and minus terms.
>
> In a parallel circuit the net reactance is the product of the two terms
> divided by the sum [and has a high net value]. As the frequency is
> changed slightly from resonance the net reactance does not change from
> 'zero' it changes from a high value to a lower value.
>
> My conclusion is that a series circuit more closely matches actual
> antenna performance as the antenna impedance varies from resonance.
>
> DD
>
> SNIPPED
>

3533. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 03:12:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4047f05c_5@corp.newsgroups.com>
Source record: 99004

aunwin wrote:
> Not sure what you are getting at.

Well, how about this, Art? A 1/2WL dipole is similar to a series circuit,
i.e. low resistance increasing to each side. A one wavelength dipole is similar
to a parallel circuit, i.e. high resistance decreasing to each side.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3534. Re: Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 03:25:33 UTC
From: "Dan Richardson"
Message-ID: <fnsf40thac5a6d6ejsj6a49hpq4g9higbo@4ax.com>
Source record: 99006

I'm surprised at you two..

You forgot duh?

On Fri, 05 Mar 2004 01:51:11 GMT, <w2du@iag.net> wrote:

>
>One more, Wes, unh!
>Walt
>
>"Wes Stewart" <n7ws@_arrl.net> wrote in message
>news:kflf40p3rl4hf4171fl3800jbi6m9abnmj@4ax.com...
>> Yes
>>
>> No
>>
>> Maybe
>

3535. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 03:35:18 UTC
From: w2du@iag.net
Message-ID: <WzS1c.30140$W74.27643@newsread1.news.atl.earthlink.net>
Source record: 99005

Seems to me this thread has gone off track, as many do after the first three or four responses.

This thread was started with Bob's fine treatise on proof of the existence of non-dissipative resistance, a resistANCE that cannot be duplicated with a resisTOR. But the thread went astray.

Non-dissipative resistance is not well accepted or understood by many otherwise well informed engineers, because it has had little or no (or even incorrect) treatment in EE courses. This is because the profs by habit generally used only the classical generator as the source in treating network theory. The classical generator is always considered to have a dissipative internal resistive source. Consequently, the profs never considered treatment of a source having other than a 50 percent maximum efficiency. All the equations I'm familiar with show clearly that 50 percent is all yer gonna get.generally

Unfortunately, the profs of my ken never tried to understand the reason the efficiencies of Class B and C amps exceed 50 percent. Fortunately, Bob Lay comes along with proof that there really is resistance established only by the RATIO of voltage to current with no dissipation whatever to heat or radiation.

Bob's paper furnishes further proof of my own proof that dissipationless resistance exists. I presented my proof in Chapter 19, and Appendices 9, 10, and 11 in Reflections 2. For those who are interested in reviewing my writings there, but who don't have a copy of Reflections 2, those references are on my web page at http://home.iag.net/~w2du.

For a short preview, take note that in Class B and C amps the DC source power goes to only TWO places, 1) the power that is dissipated in the cathode/plate resistance, which transitions to heat, and 2) the power dissipated in the load. Note also, the source resistance at the output of the tank circuit is linear, time invariant, and determined solely by the voltage/current ratio at the output of the tank. The reason is that that the energy storage of the tank isolates the non-linear input portion of the amp from the linear output portion. With sufficient Q the output wave form is a near-perfect sine wave, thus verifying linearity.

Also, data obtained from my measurements of the source resistance of Class B and C power amps shows that when the plate tuning and loading conrtrols are adjusted to deliver all the available power at a nominal drive level, the source and load resistance are equal. Consequently, if the power dissipated in the cathode/plate resistance plus the power dissipated in the load equals the DC input power, there can be no power dissipated in the source resistance.

And finally, with the source resistance non-dissipative, it cannot absorb any power reaching it from a mismatched termination down stream, which is why no

reflected power is absorbed in the amp.

Eric Nichols, KL7AJ, operates multi megawatt ionospheric sounding rigs in Alaska. The water cooling the water-cooled amp tubes is carefully measured calorimetrically. He has observed over a period of many years that the water temperature remains the same, no matter what the SWR at the input of load line is, proving there is no reflected power absorbed in the amplifier. Of course the tank circuit elements are re-adjusted to deliver all the available power, what ever the input impedance of the line may be.

Howabout if we give Bob's paper a somewhat more open-minded review. Crap? That criticism of Bob's paper is where the crap is!

Walt, W2DU

3536. Re: Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 03:56:20 UTC
From: w2du@iag.net
Message-ID: <ETS1c.30144$W74.27322@newsread1.news.atl.earthlink.net>
Source record: 99007

Yeah, Dan, I forgot that two unh's equals duh.

Walt

"Dan Richardson @mendolink.com>" <<ChangeThisToCallSign> wrote in message
news:fnsf40thac5a6d6ejsj6a49hpq4g9higbo@4ax.com...
> I'm surprised at you two..
>
> You forgot duh?
>
> On Fri, 05 Mar 2004 01:51:11 GMT, <w2du@iag.net> wrote:
>
> >
> >One more, Wes, unh!
> >Walt
> >
> >"Wes Stewart" <n7ws@_arrl.net> wrote in message
> >news:kflf40p3rl4hf4171fl3800jbi6m9abnmj@4ax.com...
> >> Yes
> >>
> >> No
> >>
> >> Maybe
> >
>

3537. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 04:05:36 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <k0T1c.116996$4o.155503@attbi_s52>
Source record: 99008

Thanks for responding Cecil I know that you can't be intimidated
to say something that you disagree with.
Now the dipole, arrangement doesn't change as you change in length.
Well, put it another way, I need more input than that for me to ride on the
same train with confidence. At the moment I am losing total confidence in
myself because of the unity of others in thought that opposes mine.
Especially when some are much better educated than I. But then you said
SIMILAR, you did NOT say it changed to parallel, so I can agree with
'similar' when comparing a particular characteristic
Cheers
Art

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4047f05c_5@corp.newsgroups.com...
> aunwin wrote:
> > Not sure what you are getting at.
>
> Well, how about this, Art? A 1/2WL dipole is similar to a series circuit,
> i.e. low resistance increasing to each side. A one wavelength dipole is
similar
> to a parallel circuit, i.e. high resistance decreasing to each side.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3538. Re: Guy Insulators??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 04:44:23 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <2fWdnRSyC5gBmNXd4p2dnA@comcast.com>
Source record: 99009

He needs the kind that works in compression, so the guys won't separate if
the insulator turns to powder.

Tam/WB2TT
"denton" <denton@oregontrail.net> wrote in message
news:c25foe$fi7$1@news.oregontrail.net...
> Electric fence post insulators....available at farm supply houses
> "Vito" <vito@crosslink.net> wrote in message
> news:4046428a$0$8078@dingus.crosslink.net...
> > Where does one get insulators for tower/mast guy wires?
> >
> > TIA
> > K3DWW
> >
> >
>
>

3539. Re: Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 05:17:51 UTC
From: Harv nelson <harv@whatever.net>
Message-ID: <X-mdnVSlLYUdkNXd4p2dnA@centurytel.net>
Source record: 99010

What was the question?

Wes Stewart wrote:
> Yes
>
> No
>
> Maybe

3540. 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 07:45:41 UTC
From: Alex <piratearchive@rogers.com>
Message-ID: <FeW1c.144101$Qg7.1455@news04.bloor.is.net.cable.rogers.com>
Source record: 99011

Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m? I have a large tree with a branch at 70' and i thought i'd pull the antenna up with a rope. Should i make the sleeve out of copper pipe? A 1/2 wave vertical would be a nice antenna for 40m and i thought a coaxial sleeve antenna would give me a great feed impedance. Any thoughts? The coax are 100' of RG8.

3541. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 08:18:35 UTC
From: richardharrison@webtv.net
Message-ID: <25069-404837DB-307@storefull-3257.bay.webtv.net>
Source record: 99012

Art, KB9MZ wrote:
"Well that is news to me. I never consider the matching circuit as part of an antenna, but only a required band aid."

Art only recently changed his mind it seems. A year or so ago he was arguing that the tuned T-matched arrangement he claimed to have invented added gain from its radiation to that of his dipole. I said , "impossible because radiation from a small loop is directed in the plane of the loop." So Art hates me.

More recently we discussed current distribution on short loaded vertical antennas and if current had to be the same at both ends of a loading coil. It doesn`t. Yuri presented in evidence Fig 9-22 from page 9-15 of the 2nd edition of ON4UN`s "Low-Band DXing". Art shows disdain for experts and books, so he may have paid no attention or quickly forgot.

One of the six examples in ON4UN`s figure is a continuously loaded radiator. No doubt, no matter how feeble it is, the radiation emanates from the loading coil which comprises the entire antenna.

Richard Clark was showing that the choice of series resonant or parallel resonant as a model may be based on application or impedance.

A parallel resonant circuit exhibits high impedance. It is used for high isolation as a trap, and as a phase inverter for a collinear as in the self-resonant coil from Kraus presented by Cecil. A parallel resonant circuit is also used to match end-fed 1/2-waves and similar high impedance antennas. Many cheap small radios just connect the high impedance antenna to to the hot end of the tank circuit.

The J-pole drives an end-fed 1/2-wave antenna from a short-circuited 1/4-wave stub. The stub is equivalent to a parallel resonant circuit and exhibits a high impedance at its open-circuit end. This was another of Richard Clark`s examples.

I regret Art fails to see the relevance of much of the accurate information offered.

Best regards, Richard Harrison, KB5WZI

3542. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 09:07:50 UTC
From: richardharrison@webtv.net
Message-ID: <25070-40484366-101@storefull-3257.bay.webtv.net>
Source record: 99013

Steve Nosko wrote:
"How come voltage dB and power dB are different?"

They aren`t.

10log(power ratio) = 20log(voltage ratio)

They are equal because power is proportional to voltage squared. To square with a logarithm, you multiply by (2).

Best regards, Richard Harrison, KB5WZI

3543. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 10:11:30 UTC
From: richardharrison@webtv.net
Message-ID: <11836-40485252-121@storefull-3255.bay.webtv.net>
Source record: 99014

Steve Nosko wrote:
"The power in the load (meter) in the chopper case is not the same as it is in the resistor case!"

A square wave has the same heating value as d-c because it has identical amplitude and both alternations are equally effective in producing heat. Power is indifferent to polarity.

The sine wave has an amplitude 1.414X its effective value. The heat produced over a period is the average of the sum of the instantaneous powers of increments within a cycle.

Someone argued that resistance is an agency which removes power from the scene. Thus, Zo is a resistance.

I would rather define resistance as the ratio of the applied emf to the resulting current in the circuit. The current must be in-phase with the applied voltage..

With my definition, the Zo of the transmission line as defined by the square root of L/C makes sense to me. It is a lossless resistance.

Best regards, Richard Harrison, KB5WZI

3544. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 13:08:48 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40487BE0.201C332D@cwis.net>
Source record: 99015

Steve
> Troll??
>
Yes, troll.
'Doc

3545. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 13:52:45 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <NC%1c.49265$PR3.988580@attbi_s03>
Source record: 99016

Richard you have started to wander again. If a matching unit is used for matching input inpedance of a radiator and not for the purpose of radiating then it is certainly not part of the antenna.
If the radiating circuit has some lumped loads on it which can be varied in value then that is certainly part of the antenna. Try and stay focussed.
Regards
Art
"Richard Harrison" <richardharrison@webtv.net> wrote in message news:25069-404837DB-307@storefull-3257.bay.webtv.net...
> Art, KB9MZ wrote:
> "Well that is news to me. I never consider the matching circuit as part
> of an antenna, but only a required band aid."
>
> Art only recently changed his mind it seems. A year or so ago he was
> arguing that the tuned T-matched arrangement he claimed to have invented
> added gain from its radiation to that of his dipole. I said ,
> "impossible because radiation from a small loop is directed in the plane
> of the loop." So Art hates me.
>
> More recently we discussed current distribution on short loaded vertical
> antennas and if current had to be the same at both ends of a loading
> coil. It doesn`t. Yuri presented in evidence Fig 9-22 from page 9-15 of
> the 2nd edition of ON4UN`s "Low-Band DXing". Art shows disdain for
> experts and books, so he may have paid no attention or quickly forgot.
>
> One of the six examples in ON4UN`s figure is a continuously loaded
> radiator. No doubt, no matter how feeble it is, the radiation emanates
> from the loading coil which comprises the entire antenna.
>
> Richard Clark was showing that the choice of series resonant or parallel
> resonant as a model may be based on application or impedance.
>
> A parallel resonant circuit exhibits high impedance. It is used for high
> isolation as a trap, and as a phase inverter for a collinear as in the
> self-resonant coil from Kraus presented by Cecil. A parallel resonant
> circuit is also used to match end-fed 1/2-waves and similar high
> impedance antennas. Many cheap small radios just connect the high
> impedance antenna to to the hot end of the tank circuit.
>
> The J-pole drives an end-fed 1/2-wave antenna from a short-circuited
> 1/4-wave stub. The stub is equivalent to a parallel resonant circuit and
> exhibits a high impedance at its open-circuit end. This was another of
> Richard Clark`s examples.

>
> I regret Art fails to see the relevance of much of the accurate
> information offered.
>
> Best regards, Richard Harrison, KB5WZI
>

3546. Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 13:57:38 UTC
From: Bill Smith <kb3gun-spam@wpia.net>
Message-ID: <40488786$0$50189$ec3e2dad@news.usenetmonster.com>
Source record: 99017

Hello All,
I'm putting a loop up on a flat roof. Height will be around 50 ft and the roof dimensions are 37' x 160'. I'll be using my Icom AH-4 coupler to tune and will be feeding it in the middle of the north 35' section (160' sections run east-west). I hope to run all HF bands.

Which direction will be the best as far as gain with the above setup? North? Would it be better to shorten the loop at all?

73!
Bill - kb3gun

3547. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 13:59:23 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <%I%1c.484123$na.1165115@attbi_s04>
Source record: 99018

Doc try and think for yourself, if you know what a parallel circuit is try and discover if it will radiate and have a reasonable input impedance. I will help you if you need it, we are only using passive elements, they are resistance, inductance and capacitance
which can be in distributed, lumped for or both just as we would for a dipole type radiator.
Art

"'Doc" <w5lz@cwis.net> wrote in message news:40487BE0.201C332D@cwis.net...
>
>
> Steve
> > Troll??
> >
> Yes, troll.
> 'Doc

3548. 4nec2 question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 14:18:37 UTC
From: larry d clark <buddycl@swbell.net>
Message-ID: <1%%1c.4084$sG3.544@newssvr22.news.prodigy.com>
Source record: 98919

i've been modeling various antennas using 4nec2
and was wondering just how accurate the data in
the radiated-power and structure loss fields actually
is?

larry
kd5foy

3549. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 14:38:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404890f6_5@corp.newsgroups.com>
Source record: 98920

Richard Clark wrote:
> "John Smith" <pani@yahoo.com> wrote:
>>Check for reflected power in either direction.
>
> You would be surprised how hard that is for some, especially when an
> argument about the direction of current flow becomes part of the
> turmoil.
>
>>If none, then it is conjugally matched exactly.
>
> Still too simple, not enough gristle to chew on. ;-)

If some, it is not conjugately matched?????

>>If it is about -14 dB down, that is good and close enough.
>
> In three sentences you've said enough to resolve the matter. But not
> enough to end the debate....

Resolve what matter?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3550. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 14:43:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40489234_5@corp.newsgroups.com>
Source record: 98921

Old Ed wrote:
> "Lossless resistance?" Would that be zero resistance,
> or perhaps a negative resistance, as in the active part of
> a tunnel diode's V-I characteristic?
>
> I am a career EE, with a couple of graduate EE degrees;
> and this is something entirely new to me. Could you explain
> this concept, and/or provide some references?

How about an example? If L and C are lossless, then SQRT(L/C)
will be lossless with a dimension of ohms, i.e. resistance.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3551. Re: grounding question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 14:49:03 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40473c3e_4@newsfeed.slurp.net>
Source record: 98922

Ok John. Run 1/4-wavelength of ordinary wire (smaller guages are okay), attaching them to the grounding lug of your radio or tuner. Run one wire for each band, to start with; you can tweak it later. I wouldn't use coax of any kind for the job.

Bear in mind that this is a "station ground" for R.F. - not an electrical ground.

If you get a chance, I would suggest reading up on "R.F. counterpoise", or "station counterpoise"...

73,
Mike KI6PR
El Rancho R..F, CA

"John Shadle" wrote
> I am trying to set up an HF station and don't have a readily available
> ground at my shack location. I have heard that it's possible to run a
> wire from the ground connection on your radio, not connected to anything
> else, as a "fake ground" as long as you cover the end of the wire (if
> coax, as I'm hoping to do) with teflon tape so that it's not exposed.
>
> I was thinking about using 75 ohm coax for this purpose, but was wondering
> if that is a bad idea (i.e., 50 ohm coax to attach to the 10m or 20m
> antenna and then 75 ohm wire for the "ground"). Has anyone else has
> experience with this set-up?
>
> Thanks,
> -john (W4PAH)
>

3552. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 14:51:26 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <c2a45f$100u$1@f04n12.cac.psu.edu>
Source record: 98923

Alex,

Solder a quarter wave length of wire to the center conductor of the coax
with a loop at the end of the wire to attach your line to raise it. A
quarter of a wavelength from the wire end of the coax, coil enough of
the coax to form an RF choke. (I think the ARRL Antenna Handbook has the
information you need about how many turns and what diameter to make the
coil.) Seal the end of the coax to keep out moisture. Then hoist the
antenna up and you have a coaxial sleeve antenna.

73,
Bob AD3K

Alex wrote:
> Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m? I have
> a large tree with a branch at 70' and i thought i'd pull the antenna up with
> a rope. Should i make the sleeve out of copper pipe? A 1/2 wave vertical
> would be a nice antenna for 40m and i thought a coaxial sleeve antenna would
> give me a great feed impedance. Any thoughts? The coax are 100' of RG8.
>
>

--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

3553. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 15:00:58 UTC
From: Incognito <BLB@sero.net>
Message-ID: <KC02c.13354$id3.9633@fed1read01>
Source record: 98924

Just a thought - build a 40M 1/2 vertical out of wire - center fed with coax
running 90 degrees from antenna as far out as you can.
Works well here as I have another shorter tree to secure the coax to.

```
[ TREE 70 feet
[
[
[
[<_________________ coax 32 feet TREE
[
[
[
[
[ Antenna 64 feet

-- --------- ground
```

Incognito By Necessity (:-(

If you can't convince them, confuse them.
- - -Harry S Truman

"Alex" <piratearchive@rogers.com> wrote in message
news:FeW1c.144101$Qg7.1455@news04.bloor.is.net.cable.rogers.com...
> Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m? I
have
> a large tree with a branch at 70' and i thought i'd pull the antenna up
with
> a rope. Should i make the sleeve out of copper pipe? A 1/2 wave vertical
> would be a nice antenna for 40m and i thought a coaxial sleeve antenna
would
> give me a great feed impedance. Any thoughts? The coax are 100' of RG8.
>
>

3554. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 15:22:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40489b5f$1_2@127.0.0.1>
Source record: 98925

John Smith wrote:
> But on a short run, lower frequency, there is not enough of the line to make
> a large effect.

For a 1/2WL line, as was the example, the impedance is transformed
around one shallow spiral on the Smith Chart. For long, lossy
runs, the SWR "circle" becomes multiple spirals that spiral inward
toward Z0 which is in the center of the Smith Chart.

For a short relatively lossless run of feedline, if the SWR is not
1:1, the impedance seen by the transmitter can never be Z0.
--
73, Cecil, W5DXP

3555. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 15:31:16 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040305103116.02859.00000896@mb-m15.aol.com>
Source record: 98926

>try and think for yourself,

I am thinking: Fugetaboutit

3556. Re: Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 15:32:44 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040305103244.02859.00000897@mb-m15.aol.com>
Source record: 98927

>
>Yeah, Dan, I forgot that two unh's equals duh.

Aww, fugettaboutit
Sopranos coming back on Sunday

Bada BUm

3557. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 15:42:36 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2a78rcav1@newshost.mot.com>
Source record: 98928

Very good Richard. If I had a prize, you'd get it. (:-(

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:25070-40484366-101@storefull-3257.bay.webtv.net...
> Steve Nosko wrote:
> "How come voltage dB and power dB are different?"
>
> They aren`t.
>
> 10log(power ratio) = 20log(voltage ratio)
>
> They are equal because power is proportional to voltage squared. To
> square with a logarithm, you multiply by (2).
>
> Best regards, Richard Harrison, KB5WZI
>

3558. Contest Group PA6F Website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 16:28:00 UTC
From: Chris <nomail@nospam.com>
Message-ID: <IU12c.9535$C_5.1582@fe04.usenetserver.com>
Source record: 98930

Dear Om's

For the people who are interested.

The is now a website from the Contest Group PA6F from The Netherlands.

Please Visit the website for more Information.

http://www.pa6f.com

Thanx for your visit and reading this message.

Greetings the team.

3559. Re: 20m Yagi height

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 17:00:27 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4048b29f_2@127.0.0.1>
Source record: 98931

Bill Grimwood wrote:
> How high does a 20 meter yaga need to be. will 50 feet be enough or do I
> need 70?

Depends upon what areas you want to cover. I prefer 30 ft because
I get a large "localized" beamwidth. Here's what EZNEC sez about
the 5 element 20m Yagi that is included in the EZNEC package.

Height Gain Take-off-angle Vertical Beamwidth
30' 13 dBi 25 deg 30 deg
50' 14.5 dBi 18 deg 20 deg
70' 15 dBi 13 deg 14 deg

Decide who you want to talk to and take your pick.
--
73, Cecil, W5DXP

3560. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 17:40:06 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <hM52c.31829$qL1.1159@fed1read02>
Source record: 98942

"Bill Smith" <kb3gun-spam@wpia.net> wrote in message
news:40488786$0$50189$ec3e2dad@news.usenetmonster.com...
> Hello All,
> I'm putting a loop up on a flat roof. Height will be around 50 ft and the
> roof dimensions are 37' x 160'. I'll be using my Icom AH-4 coupler to tune
> and will be feeding it in the middle of the north 35' section (160'
sections
> run east-west). I hope to run all HF bands.
>
> Which direction will be the best as far as gain with the above setup?
North?
> Would it be better to shorten the loop at all?
>
> 73!
> Bill - kb3gun
>
>
>

Vertical?

Ed
wb6wsn

3561. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 18:15:13 UTC
From: KA9CAR <ka9car@a_r_r_l_.net>
Message-ID: <c2ag3j$b61$1@news1.tribune.com>
Source record: 98933

On L.B. Cebicks web site he has quite an article on HOHPS (horizontaly oriented, horizontaly polarized Loops). It includes patterns for various sizes.

http://www.cebik.com/radio.html

John

"Bill Smith" <kb3gun-spam@wpia.net> wrote in message news:40488786$0$50189$ec3e2dad@news.usenetmonster.com...
> Hello All,
> I'm putting a loop up on a flat roof. Height will be around 50 ft and the
> roof dimensions are 37' x 160'. I'll be using my Icom AH-4 coupler to tune
> and will be feeding it in the middle of the north 35' section (160' sections
> run east-west). I hope to run all HF bands.
>
> Which direction will be the best as far as gain with the above setup? North?
> Would it be better to shorten the loop at all?
>
> 73!
> Bill - kb3gun
>
>
>

3562. LOG-PER: PCB-layout of LOG-PER by WA5VJB ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 18:17:43 UTC
From: peter_dingemans@hotmail.com
Message-ID: <195e9be4.0403051017.5c384959@posting.google.com>
Source record: 98932

G'day everyone,

(first post on this group)

Awhile ago, I came across a log-periodic antenna (sold by Ramsey Electronics) for the UHF-range (900-2600 MHz). It was a PCB, with the shape of a log-per etched in copper. The design was by WA5VJB (Kent Britain, judging from the 'hits' on google ?)

Anyway, I'm planning on building such an antenna, but can't seem to find the pcb-layout. Is this because it's 'proprietary' ? (at least many other Ramsey products are public, like their Doppler RDF, which is exactly as described in QST).

So, does anyone have a PCB layout for these antenna's (there are 2 designs, for different freq.ranges)? Or, if they're on the net, does anyone know where? I can't seem to find them...

(or, has anyone built one/bought one, and is it worth the trouble of making one? Gain of a log-per isn't very high, and a Dipole is quickly made...)

73,

Peter Dingemans,
The Netherlands.

3563. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 18:34:05 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <xK32c.122541$4o.162667@attbi_s52>
Source record: 98934

Hi Rich I will try to use my words carefully as I am optomistic
that we are getting close to my long term bogey.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0icf409q6nr9t32isl07a0cj62nbuk6q3d@4ax.com...
> On Thu, 04 Mar 2004 22:31:40 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
> ...
> > give the pros and cons between a series
> >circuit and a parallel circuit from which to base a radiator ?
> ...
> >Just to give you a start a series circuit radiator is a dipole.
>
> >And we will
> >say a parallel circuit radiator is one with at least one capacitive
lumped
> >circuit and one inductive lumped circuit in parallel.
> ...
> >Here is a start
> >A dipole provides a lot of signals at the same time(good)
> >A parallel circuit can only supply one signal at a time (bad)
> >Get the idea?
>
> Hi Art,>
> A dipole is the most efficient antenna.

Well I know that is your position but what are you comparing it with and
what parameters
are you focussing on to form an efficiency term ?

>
> The parallel circuit offers loss to an already most efficient
antenna..

Well looking at them separately rather than adding one to another.
What losses are you refering to in a parallel circuit assuming that the
circuit is resonant?. Is it of magnitude that one gets when adding an
impedance matching unit say on a 160 metre style shortened dipole or similar
antenna?
>
> A dipole is simple to load and often requires no matching.

Yes, that is true and very important, possibly a good reason to make it a
standard in all its different aspects with respect to ground and radiation
foot print.

>
> The parallel circuit is difficult to load and always requires
> matching.

No..... The parallel circuit need not require any external matching
system which is a huge plus.

>
> A dipole offers a standard of gain.

Anything can be adopted as a standard to compare to so this is a non runner.

>
> The parallel circuit offers no change in gain except the prospect of
> reducing it through making the antenna smaller to become a resonant
> system.

As a dipole moves away from its resonant point gain losses occur,
swr increases and limits the frequency span of use.
A parallel circuit which provides movement of the resonant point
has no loss in gain, minimul change in SWR and thus less constraint on
frequency span that can be used.

Shortening comment I fully agree with, that eventually can open many doors.

>
> A dipole is a simple construction.

I fully agree

>
> The parallel circuit adds complexity which raises the prospects of
> mechanical and electrical failure.

Yes, you are of my generation that was brought up on the idea of less moving
parts. But our generation has made such huge advances in Quality control
together with the introduction of solid state construction that we now have
a throw away economy.
In ham radio we now see solid state construction with high intricasy of
moving parts, in radios, remote matching systems and yes even with antennas
such as the IR antenna. Our generation is now in the minority on that
subject.

> A dipole offers hazardous potentials at its tips.

True but it has not been of sufficient danger for manufacturers to place a
warning tag at each end.

>
> A parallel circuit double that danger by offering hazardous potentials
> at both its tips and its drive point.

Should be zero change in drive point at the antenna input port
and should provide less voltage hazards as it would tend to lower voltages
and increase current which is the prime requirement for radiation. This
point is one of the main points I fail to understand

why the group will not embrace.

> A dipole requires isolation/insulation at its tips due to high
> potentials.

Repeat
>
> A parallel circuit requires isolation/insulation at its drive point
> AND its tips due to high potentials.
>
> Is that the idea? I presume you can distinguish good/bad.
>
> 73's
> Richard Clark, KB7QHC

Yes Richard I think that narrows the issue down very nicely and prevents mischevious comments that foster disarray.

Obviously enclosed in the above there is something that I am tripping over thru the years and I have no doubt that you will eventually point to it and here I must put up or shut up.
Even if it is demonstrated where I am in error it is a positive for me in a learning cycle.
Could we now focus on those points that we disagree and push the others aside and only return to them if it is pointed out that we were both wrong.
You continue with the lead as it is working nicely.
Thanks so much for aproaching with an open mind in a true academic fashion which will eventually arrive at the main point of contention that I have failed to grasp before intential spoilers
arrive as they have done with forums such as.....well you know what I mean
Best regards
Art

3564. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 18:46:15 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <jdydnRryN9t3V9XdRVn-jA@comcast.com>
Source record: 98935

I never built this, but had considered an antenna like that. I was going to patch in a 1/4 wave section of triaxial coax. The two shields would be connected at the top, and the outermost shield would be left unconnected at the bottom end. BTW, I hung a 40m 1/4 wave ground plane vertical from a tree branch once. Feed point was at about 30 - 35 feet. There were 4 radials sloping down at 45 degrees. It worked reasonably, but unfortunately came down before I had a chance to do much with it. The sloping radials will give you very close to a 50 Ohm impedance.

Tam/WB2TT
"Alex" <piratearchive@rogers.com> wrote in message
news:FeW1c.144101$Qg7.1455@news04.bloor.is.net.cable.rogers.com...
> Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m? I
have
> a large tree with a branch at 70' and i thought i'd pull the antenna up
with
> a rope. Should i make the sleeve out of copper pipe? A 1/2 wave vertical
> would be a nice antenna for 40m and i thought a coaxial sleeve antenna
would
> give me a great feed impedance. Any thoughts? The coax are 100' of RG8.
>
>

3565. Re: 20m Yagi height

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 19:10:38 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <7tadnU_46tY_TdXdRVn-jA@comcast.com>
Source record: 98936

I have my tribander at about 40 feet. There have been times, when I had my amp on, that European stations told me I had the loudest signal coming in from the States. I attribute that to the fact that the big guns with their 100 foot towers were shooting over Europe into central Asia. For extreme long haul, like China, the 40 feet seems to be really the best on 15 meters .

My tower is an old Wilson TT45. There is a modern US Tower equivalent, but they call it 40 foot; depends on how tall a mast you stick on the end. You can't use a thrust bearing with these, but the price is right. So, you put any large antenna a couple of inches above the rotator. They come standard with a tiltover base and house bracket. Mine is bracketed to the back of the garage, and folds over parallel to the wall. This takes some exact measurements to get the base in the right place. Also, when you fold it down, the tower has to move slighty away from the wall, not into it. In my case, 90 degrees was not an option, but would be the preferred way to do it.
Tam/WB2TT
"Bill Grimwood" <bill@grimwood.net> wrote in message
news:104haa7itigq9fb@corp.supernews.com...
> How high does a 20 meter yaga need to be. will 50 feet be enough or do I
> need 70?
>
> Any recomendations on a foldover tower that I will not have to climb so I
> can service tha antenna and rotor?
>
>
> 73
>
> W4WEG
>
>

3566. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 19:14:20 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <gk42c.119756$Xp.532381@attbi_s54>
Source record: 98937

Thats O.K. Yuri I learned from your long thread regarding
current flow in inductors which never got resolved and is waiting on your
experiment. This time things appear to be different, I am asking for
assistance not telling people that they are wrong.
There is a difference in opinion and I am in the listening mode
which is proving very productive since there as yet has been no diversive
mischevious postings that moved things off focus as it did with your brouha.
This is focussed on antennas which is what this newsgroup is interested in
and it is staying on focus as people
who are not sure of their facts are staying off. I could not ask for
anything better, it is a teaching mode and not an enforcement mode
so everybody learns and everybody benefits..
Regards
Art
"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message
news:20040305103116.02859.00000896@mb-m15.aol.com...
> >try and think for yourself,
>
> I am thinking: Fugetaboutit
>

3567. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 19:32:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2akn8$2g0$1@newshost.mot.com>
Source record: 98939

Working very hard to resist his long-winded gene, and apparently failing,
Steve responds:

Hi Richard,

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:11836-40485252-121@storefull-3255.bay.webtv.net...
> Steve Nosko wrote:
> "The power in the load (meter) in the chopper case is not the same as it
> is in the resistor case!"

Sorry Richard, but I show how this is true below. Stay tuned...

However, first I'll address this digression. You say:
> A square wave has the same heating value as d-c because it has identical
> amplitude and both alternations are equally effective in producing heat.
> Power is indifferent to polarity.

I believe you have changed your premise. The chopper example you
gave is not this type of square wave. Your example has what might be called
a "ONE sided alternation". Again, more below.

> The sine wave has an amplitude 1.414X---
I want to stay on the chopper example you posed.

> Someone argued that resistance is an agency which removes power from the
> scene. Thus, Zo is a resistance.

I did. I maintain that *to the sourse* - that is, from the source's point
of view, an R or a Zo (all real) are indistinguishable. The current is in
phase with the voltage and power is removed from the source. Yes the power
isn't lost from the system, yet, so I do understand your resistance (sorry)
to calling it a loss. It is traveling down the line, but it IS gone from the
source.

> I would rather define resistance as the ratio of the applied emf to the
> resulting current in the circuit. The current must be in-phase with the
> applied voltage.
> With my definition, the Zo of the transmission line as defined by the
> square root of L/C makes sense to me. It is a lossless resistance.
> Best regards, Richard Harrison, KB5WZI
So, you hold true the two means to the definitions. That's ok, but I
maintain that the chopper example is correctly analyzed by my method. I see
that you are trying to build mental models of these situations, but I think
your model does not do justice to the physics... IT seems a reasonable
conclusion that - because the value of Zo is the ratio of two lossless
parameters that therefore the Zo itself is "lossless". In the sence that

the power is not lost from the system ans delivered to some type of load, this is true. So I understand this analogy, though I believe it does not allow a good understanding of electronics.

Now, I return to the Meter and resistor/chopper premise you posed earlier:

Rather than succumbing to jokes, I submit that while you base your understanding on the facts, your approach is from the wrong direction. I suggest that your "loss-less resistance" concept is the wrong way to look at it. When we analyze a situation we must be careful to have all the correct basics - and not violate any basic "laws". I believe there is only one kind of resistance (as far as the circuit is concerned) and therefore all resistance follows the same rules -- all the time. I don't need one understanding for loss-full resistance and another for loss-less resistance.

I actually have pondered trying to use a model called "average resistance", but I think it is not the right way to go. Here's how I came to this conclusion.... Short answer: it does not work.

Long answer:

I DO know that one not-to-be-violated principle is that ALL resistance removes or looses power - that there is no such thing as loss-less resistance. If we place ourselves 'inside' a circuit, any time some of the I is in phase with V (across an element of the circuit), power exits out that element. A real Zo does this, a resistor does this and a motor does this. The power exits the source and becomes energy traveling down a T-line, heat or mechanical energy, respectively. (I hope I am using all the correct terminology here) This MUST be an overriding principle and my solution must not violate it. If it does, then I went in the wrong direction. I am not going to say that the switched situation is more complex because it is actually quite simple. You just went the wrong way in a desire to understand it.

You give three situations which can still be used to get to the correct conclusion.

1) A simple 1V. source and a 1K load (a meter) [IL=1 ma. PL= 1 mW]

2) The above with an added 1k resistor [IL=0.5 ma. VL=0.5 V. PL=0.25 mW.]

3) #1 with a 50% chopper.[ILavg.=0.5 ma. ... PL=0.5mW.]

You tried to understand #3 (chopper) by comparing it to #2 (added resistor) both having the same AVERAGE current. You say they are the same. This sounds reasonable, at first,, but switched or pulsed circuits can be misleading.

I expected a response from someone to the effect that I threw in a square root out of nowhere and was confusing the matter by throwing math at it. Bear with me, and I will show that the added resistor and the chopper situations are definitely NOT the "same". While I knew the

root is correct, I actually puzzled over this. Why isn't #2 (added resistor) and #3 (chopper) the correct comparison? I do know that the chopper situation does have a square root in the power equation. In fact, when doing RMS calculations there will always be a root in the equation which is not in the 'average' equation. Here's a way to look at it which gives the correct conclusion.

To understand #3 (chopper), it is better to compare it to _#1_. Like this:

When the switch is closed, Power in the load is PL= 1.0 mW. When open, PL= 0.0. Therefore based on an intuitive understanding of how things work, it surely seems that the average Power in the load must be half or 0.5 mW. Well, this IS correct.

Now look closely at case #2 (added resistor) . The Power in the load is 0.5 V times 0.5 ma., or 0.25 mW. So while the average current is the same as #3 (chopper), the average power is not (it's half that of the chopper case). Therefore, the chopper case and the added resistor case are not really the same. Something is definitely different. It is the power.

Applying the RMS formula to the chopper case gives the same result. The chopper case is not your regular square wave with a positive and negative "alteration". You are correct that the standard square wave is = to DC. The chopper case IS NOT.

It turns out that when we move into the RMS realm, a square root always appears in the formula. In case you can't see that Int' Rect paper, the chopped case RMS is:

RMS = Imax * sqr-root(duty-cycle ratio).

So for a 50-50 chopper it is Irms = 0.707ma. This gets the 0.5 mw number.

Intl Rect paper URL:

http://www.irf.com/technical-info/an949/append.htm

Formulas roughly in mid document.

OK, so what about the "resistance" of the chopper? Can we assign it a numerical value? I suggest that while this is a very tempting path , it should be discarded and you only think in terms as I describe. That is, for the steady state cases (#1 & 2) we use ohms law and for #3 (chopper) we shift gears slightly and apply principles (still correct ones) which properly describe that situation.

Another stumbling point is the idea of current being "In-Phase" for the chopper case. Phase (when we start getting into power factor considerations) is a property of sine signals and applying it to the chopper case, I believe, is a confusing use. I can imagine a concept where - the wave shape of the current being the same shape as the voltage wave indicates a resistive circuit - as being valid.

Now, we may want to ask; "OK. Then what IS the "Equivalent resistance" of this 50-50 chopper. Since it is limiting the current to this average value of 50%, it MUST have some "resistance" associated with it--shouldn't it? Well, let us look two ways. If there is a equivalent resistance, then we should get the same value any way we figure it.

Looking at the AVERAGE current, we'd be led to think it is 1k since the "current" is cut in half. However, looking at the power, it appears to be 414.43 ohms. (this is what it would take to get 0.5 mW. in the 1k load)

Now this looks strange. That is, a 50-50 duty cycle chopper and two different ways to arrive at this "equivalent resistance". Pick other chopper duty cycles and I think we may find that a square root crops up (I haven't derived it, yet). There is no square-root in the average current formula. It is simply the duty cycle ratio. This suggests that the concept of an "equivalent resistance" has some problem. If there is a truly equivalent resistance, then any method of analysis should arrive at the same value. I didn't need any "loss-less resistance" to get the numbers.

I submit that it is a bad mental model and should be discarded.

We all must form what I call "mental models" of electronics. If our models are good, then we can use them and come to the correct conclusion as we look at new or more complex situations. The formulas always work when properly applied. I guess the catch is: which formulas are the correct ones. I think some may think that arrogance tells me which is which. If we pick the wrong view, we can be led astray. This is the case here.

I believe the conclusion should be:

In the simpler steady state DC (or AC) situations, we use ohms law and think in terms of our normal understanding.

In the switch-mode situation, we still use ohms law. However, we base our understanding on different concepts which do not overlap completely with the steady state case, but are nonetheless correct basics (and equivalent or loss-less resistance are not among them). Also that using two applicable, but different methods, we arrive at only one answer.

For a VERY light look at the chopper situation, the "equivalent resistance" idea may be ok for some simplistic explanation to a non technical person, but for someone trying to understand electronics, it falls apart.

Are you swayed, or am I whistling up a drain pipe? If we agree to disagree, so be it, but how do you justify the difference in *power* between case 2 and 3 when you maintain they are the "same"? I would like to focus on that.
--
Steve N, K,9;d, c. i My email has no u's.

3568. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 19:33:10 UTC
From: Bill Smith <kb3gun-spam@wpia.net>
Message-ID: <4048d630$0$26466$ec3e2dad@news.usenetmonster.com>
Source record: 98938

Thanks John! That article answered all my questions.

73
Bill kb3gun

"KA9CAR" <ka9car@a_r_r_l_.net> wrote in message
news:c2ag3j$b61$1@news1.tribune.com...
>
> On L.B. Cebicks web site he has quite an article on HOHPS (horizontaly
> oriented, horizontaly polarized Loops). It includes patterns for various
> sizes.
>
> http://www.cebik.com/radio.html
>
>
> John
>
>
>
> "Bill Smith" <kb3gun-spam@wpia.net> wrote in message
> news:40488786$0$50189$ec3e2dad@news.usenetmonster.com...
> > Hello All,
> > I'm putting a loop up on a flat roof. Height will be around 50 ft and
the
> > roof dimensions are 37' x 160'. I'll be using my Icom AH-4 coupler to
tune
> > and will be feeding it in the middle of the north 35' section (160'
> sections
> > run east-west). I hope to run all HF bands.
> >
> > Which direction will be the best as far as gain with the above setup?
> North?
> > Would it be better to shorten the loop at all?
> >
> > 73!
> > Bill - kb3gun
> >
> >
> >
>
>

3569. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 19:35:21 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2akt6$2ms$1@newshost.mot.com>
Source record: 98940

"Alex" <piratearchive@rogers.com> wrote in message
news:FeW1c.144101$Qg7.1455@news04.bloor.is.net.cable.rogers.com...
> Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m? I
have
> a large tree with a branch at 70' and i thought i'd pull the antenna up
with
> a rope. Should i make the sleeve out of copper pipe? A 1/2 wave vertical
> would be a nice antenna for 40m and i thought a coaxial sleeve antenna
would
> give me a great feed impedance. Any thoughts? The coax are 100' of RG8.

There was an article in, I believe QEX just a few months ago. The
author made the "sleeve" out of several wires, hanging down, around the
coax. They formed sort of a skelton sleeve. It was for an HF band too.

--
Steve N, K,9;d, c. i My email has no u's.

3570. Re: which J-Pole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 20:13:56 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <1pnh40p0sfsol3v4pjdsh1vigqcqe8ojp9@4ax.com>
Source record: 98941

On Mon, 01 Mar 2004 13:19:58 GMT, "Richard Heindel"
<rheindel@neo.rr.com> wrotF:

>Hi Dustin,
> Here's another site you might want to check out,
http://www.arrowantennas.com/inst/inst.html
>Look under "open stub j-poles" and then look at the OSJ 146/440 info.
>It's easy to build and has excellent results on both bands.
>73 Richard WB8KRN
>
I built a copy of the Arrow dual bander and it does work well. I also
have a copper collinear fed with a coax 4:1 balun that works very
well, but I was never able to get a really good match to it.

I use the collinear for packet and the Arrow clone for local
repeaters.

Mike kc9doa

3571. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 21:00:00 UTC
From: Bill Smith <kb3gun-spam@wpia.net>
Message-ID: <4048ea82$0$26463$ec3e2dad@news.usenetmonster.com>
Source record: 98943

No, horizontal. Each corner will be at 50ft.

"Ed Price" <edprice@cox.net> wrote in message
news:hM52c.31829$qL1.1159@fed1read02...
>
> "Bill Smith" <kb3gun-spam@wpia.net> wrote in message
> news:40488786$0$50189$ec3e2dad@news.usenetmonster.com...
> > Hello All,
> > I'm putting a loop up on a flat roof. Height will be around 50 ft and
the
> > roof dimensions are 37' x 160'. I'll be using my Icom AH-4 coupler to
tune
> > and will be feeding it in the middle of the north 35' section (160'
> sections
> > run east-west). I hope to run all HF bands.
> >
> > Which direction will be the best as far as gain with the above setup?
> North?
> > Would it be better to shorten the loop at all?
> >
> > 73!
> > Bill - kb3gun
> >
> >
> >
>
>
> Vertical?
>
> Ed
> wb6wsn
>

3572. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 21:07:32 UTC
From: richardharrison@webtv.net
Message-ID: <3053-4048EC14-32@storefull-3258.bay.webtv.net>
Source record: 98944

Steve Nosko wrotew:
"3) #1 with 50% chopper, [ILavg =0.5 ma...
PL = 0.5 mW]"

At 1/2-scale, the current is 0.0005 amp.
P = 0.0005 squared x 1000 = 0.00025 watt.

As the meter reads the same, with the chopper or resistor, the series drop from a series resistor in place of the chopper is the same. The load resistance inside the meter is the same. Therefore, the power in both cases is identical.

Lossy resistance or lossless resistance produce the same effect in the load.

Best regards, Richard Harrison, KB5WZI

3573. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 21:37:25 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <dq62c.31843$qL1.22830@fed1read02>
Source record: 98945

Well, four corners on your square loop, each corner 50 feet above ground;
sounds like a horizontal plane loop. And that close to ground on HF, the
maximum lobe is pretty close to straight up.

Ed
wb6wsn

"Bill Smith" <kb3gun-spam@wpia.net> wrote in message
news:4048ea82$0$26463$ec3e2dad@news.usenetmonster.com...
> No, horizontal. Each corner will be at 50ft.
>
>
> "Ed Price" <edprice@cox.net> wrote in message
> news:hM52c.31829$qL1.1159@fed1read02...
> >
> > "Bill Smith" <kb3gun-spam@wpia.net> wrote in message
> > news:40488786$0$50189$ec3e2dad@news.usenetmonster.com...
> > > Hello All,
> > > I'm putting a loop up on a flat roof. Height will be around 50 ft and
> the
> > > roof dimensions are 37' x 160'. I'll be using my Icom AH-4 coupler to
> tune
> > > and will be feeding it in the middle of the north 35' section (160'
> > sections
> > > run east-west). I hope to run all HF bands.
> > >
> > > Which direction will be the best as far as gain with the above setup?
> > North?

3574. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 22:20:28 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2auiqgqk1@newshost.mot.com>
Source record: 98946

*** MY inserted comments ***

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:3053-4048EC14-32@storefull-3258.bay.webtv.net...
> > Steve Nosko wrote:
> > "3) #1 with 50% chopper, [ILavg =0.5 ma... PL = 0.5 mW]"
>
> At 1/2-scale, the *** AVERAGE *** current is 0.0005 amp.
> P = 0.0005 squared x 1000 = 0.00025 watt.

***
Power is calculated from *RMS* values of voltage and/or current. Do you
disagree with this last statement? You previously quoted the RMS character
of the sine wave, so I know you understand the concept, yet you seem to be
denying that the pulsed wave need not follow the same laws. Or is it that
that you disagree that the 50-50 pulse has the .707 RMS value.

> As the meter reads the same, with the chopper or resistor, the series
> drop from a series resistor in place of the chopper is the same.

***
It is not. In the chopper case, the series drop is NEVER 0.5 volt.
It is either zero or one volt - changing with time. This mucks about with
your reasoning. Load resistance and *RMS* load current are used to
calculate the power, no? We do this for the sine wave, why not the pulse.

> The load resistance inside the meter is the same. Therefore, the power in
> both cases is identical.

**** Last sentence is incorrect.

> Lossy resistance or lossless resistance produce the same effect in the
> load.
> Best regards, Richard Harrison, KB5WZI

****
I am afraid this is incorrect. Yes, The AVERAGE current is, as you say,
the same, but the Effective or RMS current is as I said = 0.000707. Do you
wish to address your interpretation of the pulse RMS formula and the
apparent agreement with my power analysis copied again here?

--
When the switch is closed, Power in the load is PL= 1.0 mW. When open,
PL= 0.0. Therefore...the average Power in the load must be half or 0.5 mW.

--

If you stay with your chopper PL=0.25mw claim, then what do you say
about my argument, which uses the average power as a measure rather than the
average current? Do you claim that power does not average?
Why is the average current the correct parameter to arrive at the
correct answer and the average power not? And what do you say about the
commonly accepted square pulse formula P=Imax * SQUARE-ROOT(Duty-cycle)?

Imax - 1ma. ROOT(.5) = .707

I am quite puzzeled by your conclusion. Consult with any respected expert
of your choice.
73 & good DX (if desired) (:-) , Steve
--
Steve N, K,9;d, c. i My email has no u's.

3575. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 23:20:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ln1i40dh2vru0047kd3vlp79enhm5lh231@4ax.com>
Source record: 98947

On Fri, 05 Mar 2004 18:34:05 GMT, "aunwin" <aunwin@insightbb.com>
wrote:
>> A dipole is the most efficient antenna.
>
>Well I know that is your position but what are you comparing it with and
>what parameters are you focussing on to form an efficiency term ?

They are the common factors of efficiency
Power Radiated / (Power Radiated - Power lost to heat)

If the radiated power doesn't go where you want, that is inconvenient
not inefficient.

>> The parallel circuit offers loss to an already most efficient
>antenna..
>
>Well looking at them separately rather than adding one to another.
>What losses are you refering to in a parallel circuit assuming that the
>circuit is resonant?. Is it of magnitude that one gets when adding an
>impedance matching unit say on a 160 metre style shortened dipole or similar
>antenna?

Impedance does not lose power, resistance does. Additional components
add resistance where there was no resistance before.

>> The parallel circuit is difficult to load and always requires
>> matching.
>
>No........ The parallel circuit need not require any external matching
>system which is a huge plus.

The parallel circuit ALWAYS requires matching BY DEFINITION. There is
no alternative. ALL halfwave verticals and ALL fullwave dipoles
demand matching. There are no commercial sources (transmitters) or
lines that drive this kind of load directly, matching is the ONLY
choice.

>> A dipole offers a standard of gain.
>
>Anything can be adopted as a standard to compare to so this is a non runner.

This attitude is self-serving. The dipole is the de-facto standard
barring the isotropic specification. Choose one or the other, there
is no honest third choice.

>> The parallel circuit offers no change in gain except the prospect of
>> reducing it through making the antenna smaller to become a resonant

>> system.
>
>As a dipole moves away from its resonant point gain losses occur,

I have shown this to be false.

>> A parallel circuit double that danger by offering hazardous potentials
>> at both its tips and its drive point.
>
>Should be zero change in drive point at the antenna input port
>and should provide less voltage hazards as it would tend to lower voltages
>and increase current which is the prime requirement for radiation. This
>point is one of the main points I fail to understand
>why the group will not embrace.

Because it is not true. A parallel resonant circuit BY DEFINITION has
a high Z characteristic. A constant power (which is to say the same
power you would put into a low Z characteristic, series resonant
antenna) drives the voltage to hazardous levels. There is no other
outcome.

73's
Richard Clark, KB7QHC

3576. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 23:24:01 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <ep2i401t2p12ig9icp37uqm1n1qka9h629@4ax.com>
Source record: 98948

On Sat, 28 Feb 2004 20:10:56 -0600, "Crazy George" <muNnscOh@attSglPobaAl.nMet>
wrote:

>Dave:
>
>I've forgotten the exact construction you described, but I suspect you are
>going to have to increase the friction between the two tubes by splitting
>and clamping the outer. It sounds like the aluminum is simply too thin and
>too soft to withstand that kind of torque against a small diameter fastener.

Hi George,

I took the antenna down last weekend (layed it over using the screw operated hinge base) and, after considering a few alternatives, and trying one unsuccessfully (new bolt hole - broke off bit), I drilled out the 2 1/4" bolt holes already there that were holding the hollow mast to the stainless steel shaft to 3/8". Installed 2 3/8" bolts and tightened them down very tightly.

We've got a moderate wind right now, and the antenna is doing about 5 degrees of swing, so i think it helped. Will probably tilt it over in a couple weeks, drill some more 3/8" holes, and tighten them down smartly as well.

BTW, for anyone with a quad that has "hose clamp" construction to hold the spreaders, it pays to retighten them. Nearly all of mine were stretched, and this antenna hasn't been up all that long - a few months.

Dave Head
K8DH

3577. Re: LOG-PER: PCB-layout of LOG-PER by WA5VJB ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 23:24:27 UTC
From: Stevens <stevens@stevens.net>
Message-ID: <uv2i4054ljqhcu2gdvdt3chf85hmopdgg4@4ax.com>
Source record: 98949

Why don't you just contact Kent and buy one?

On 5 Mar 2004 10:17:43 -0800, peter_dingemans@hotmail.com (peter
dingemans) wrote:

>G'day everyone,
>
>(first post on this group)
>
>Awhile ago, I came across a log-periodic antenna (sold by Ramsey
>Electronics) for the UHF-range (900-2600 MHz). It was a PCB, with the
>shape of a log-per etched in copper. The design was by WA5VJB (Kent
>Britain, judging from the 'hits' on google ?)
>
>Anyway, I'm planning on building such an antenna, but can't seem to
>find the pcb-layout. Is this because it's 'proprietary' ? (at least
>many other Ramsey products are public, like their Doppler RDF, which
>is exactly as described in QST).
>
>So, does anyone have a PCB layout for these antenna's (there are 2
>designs, for different freq.ranges)? Or, if they're on the net, does
>anyone know where? I can't seem to find them...
>
>(or, has anyone built one/bought one, and is it worth the trouble of
>making one? Gain of a log-per isn't very high, and a Dipole is quickly
>made...)
>
>73,
>
>Peter Dingemans,
>The Netherlands.

3578. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-05 23:48:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fr2i401cj6lr1skd6ds87623q8ra6jot2m@4ax.com>
Source record: 98950

On Fri, 05 Mar 2004 01:24:04 GMT, "aunwin" <aunwin@insightbb.com>
wrote:
>> That is the longstanding convention. Same thing applies to a one
>> wavelength dipole. All such are the basis of the J-Pole and the Zepp
>> (when you strip away their matching sections).
>
>Well that is new to me, I never consider the matching circuit as part of an
>antenna but only a required band aid. Can you point me
>to where this is discussed ? (J pole I know nothing about but the others I
>would like to read of what you refer to as a parallel circuit) This could
>be the point of confusion.

The archives are rich in this discussion. The following quote from me
covers it adequately:

>> Matching sections to the J-Pole and the Zepp are contributors to
>> radiation due to the unbalanced nature of those antennas designs. How
>> much they contribute is perhaps arguable, but when they are built in
>> without care, their contribution cannot be denied. The matching
>> circuits contain both circulating currents and common mode currents.
>> The common mode currents, as a function of the physical length
>> compared to wavelength, offer radiation. The radiation may aid, or it
>> may hinder, but it is there none the less.
>>
>> > Not sure if you are saying 'yes'. I personaly think it is a parallel
>> >circuit to which I would answer 'yes'.
>>
>> No, they are NOT parallel - they could be, but there is nothing
>> inherently parallel and it all depends on the drive and load applied.
>
>Well on that note I see a dipole as a single series circuit fed by a
>generator(ARRL book), where-as I see a bandpass circuit as a parallel
>circuit.

This is a product of your shortfall of experience and instruction. I
can construct a bandpass circuit using only resistors and capacitors.
There is NOTHING resonant there. I can build a notch filter (the
opposite of a bandpass filter) with a parallel circuit and EVERYTHING
is resonant there. I can build a bandpass filter with a series
resonant circuit. It is all a matter of connections, the topology as
has been pointed out.

>Read the ARRL book on antennas and they dwell on series circuits as in
>dipole, why the big difference with this newsgroup?

I have observed absolutely no discussion that would deny a series
resonant analysis of a half wave dipole.

>Your comments seem to
>rotate about phase changes more than it does about coupling as to the main
>focal point.

I have commented in no way, shape, or form about phase. It is wholly
inappropriate to the topic.

>No comments on your other posting yet .(pro and con) which suggest the
>experts are unified on your statements.

As if I cared.... Engineering is not a democracy.

>I will have to choose my words very, very carefully tomorrow on that one.Up
>to now I feel fully exposed on what I don't know that which every body else
>knows

Them? Hardly. Few dwell on these matters as there is a script in the
amateur rags that offer equivalent circuits presented at the drive
point for various length radiators. The point at which you may go
seriously off the track is to interpret those equivalent circuits into
physical structures of an over-strained imagination.

It is fine and well to simply observe that the full wave dipole has an
equivalent with a parallel resonant circuit. It is vastly different
to assign the physical elements of the structure of the antenna to
roles of capacitor, inductor and so on to make that parallel circuit
"real."

73's
Richard Clark, KB7QHC

3579. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 00:26:04 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <re6i40dep53go2u1i9i7mfl0a4ef8gf1e4@4ax.com>
Source record: 98951

On Fri, 5 Mar 2004 08:57:38 -0500, "Bill Smith" <kb3gun-spam@wpia.net>
wrote:

>Hello All,
>I'm putting a loop up on a flat roof. Height will be around 50 ft and the
>roof dimensions are 37' x 160'. I'll be using my Icom AH-4 coupler to tune
>and will be feeding it in the middle of the north 35' section (160' sections
>run east-west). I hope to run all HF bands.
>
>Which direction will be the best as far as gain with the above setup? North?
>Would it be better to shorten the loop at all?
>
>73!
>Bill - kb3gun
>
>

Should be a great all band antenna Bill, I use a 520' horizontal loop
here that is only at 35' it work all HF Bands just fine.. the higher
in frequency you go the lower the radiation angle becomes only draw
back is that on the higher bands it will develop some pretty deep
nulls also.. I'd put up a vertical or 44' dipole with open wire if i
could as a second antenna on those bands.. but still even with the
deep nulls in the pattern it works great, DXCC qrp here to prove it.

73 Dave kc1di happy hamming

3580. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 00:51:05 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <Zf92c.186983$uV3.785337@attbi_s51>
Source record: 98952

Yup, Richard you got me fair and square. I really thought
that this discussion was going to be fruitful and pushed aside all past
history. Just shows how dumb I am..But then I am sure I will not be the last
one to be taken in.
You really executed the situation well
Art

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:ln1i40dh2vru0047kd3vlp79enhm5lh231@4ax.com...
> On Fri, 05 Mar 2004 18:34:05 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
> >> A dipole is the most efficient antenna.
> > >
> > >Well I know that is your position but what are you comparing it with and
> > >what parameters are you focussing on to form an efficiency term ?
> >
> > They are the common factors of efficiency
> > Power Radiated / (Power Radiated - Power lost to heat)
> >
> > If the radiated power doesn't go where you want, that is inconvenient
> > not inefficient.
> >
> > >> The parallel circuit offers loss to an already most efficient
> > >antenna..
> > > >
> > >Well looking at them separately rather than adding one to another.
> > >What losses are you refering to in a parallel circuit assuming that the
> > >circuit is resonant?. Is it of magnitude that one gets when adding an
> > >impedance matching unit say on a 160 metre style shortened dipole or
similar
> > >antenna?
> >
> > Impedance does not lose power, resistance does. Additional components
> > add resistance where there was no resistance before.
> >
> > >> The parallel circuit is difficult to load and always requires
> > >> matching.
> > > >
> > >No........ The parallel circuit need not require any external matching
> > >system which is a huge plus.
> >
> > The parallel circuit ALWAYS requires matching BY DEFINITION. There is
> > no alternative. ALL halfwave verticals and ALL fullwave dipoles
> > demand matching. There are no commercial sources (transmitters) or

> lines that drive this kind of load directly, matching is the ONLY
> choice.
>
> >> A dipole offers a standard of gain.
> >
> >Anything can be adopted as a standard to compare to so this is a non
runner.
>
> This attitude is self-serving. The dipole is the de-facto standard
> barring the isotropic specification. Choose one or the other, there
> is no honest third choice.
>
> >> The parallel circuit offers no change in gain except the prospect of
> >> reducing it through making the antenna smaller to become a resonant
> >> system.
> >
> >As a dipole moves away from its resonant point gain losses occur,
>
> I have shown this to be false.
>
> >> A parallel circuit double that danger by offering hazardous potentials
> >> at both its tips and its drive point.
> >
> >Should be zero change in drive point at the antenna input port
> >and should provide less voltage hazards as it would tend to lower
voltages
> >and increase current which is the prime requirement for radiation. This
> >point is one of the main points I fail to understand
> >why the group will not embrace.
>
> Because it is not true. A parallel resonant circuit BY DEFINITION has
> a high Z characteristic. A constant power (which is to say the same
> power you would put into a low Z characteristic, series resonant
> antenna) drives the voltage to hazardous levels. There is no other
> outcome.
>
> 73's
> Richard Clark, KB7QHC

3581. Re: Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 00:55:37 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <dk92c.30692$W74.23363@newsread1.news.atl.earthlink.net>
Source record: 98953

Wes:

Heh, heh...

In Canada, they would say, "Eh?"

--
Peter K1PO, ex VE1AEX, VE2POB, VE3DZK...
Indialantic By-the-Sea, FL.

"Wes Stewart" <n7ws@_arrl.net> wrote in message
news:kflf40p3rl4hf4171fl3800jbi6m9abnmj@4ax.com...
> Yes
>
> No
>
> Maybe

3582. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 02:24:59 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40494b2c_3@news1.prserv.net>
Source record: 98958

BTW, Dave: If you ever do disassemble that tubing over tubing joint, put a solid block of something inside where the bolts go through. No tubing is strong enough to resist collapse when you tighten the through bolts enough.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Dave Head" <rally2xs@att.net> wrote in message news:ep2i401t2p12ig9icp37uqm1n1qka9h629@4ax.com...

<snip>
> We've got a moderate wind right now, and the antenna is doing about 5 degrees
> of swing, so i think it helped. Will probably tilt it over in a couple weeks,
> drill some more 3/8" holes, and tighten them down smartly as well.
>
> BTW, for anyone with a quad that has "hose clamp" construction to hold the
> spreaders, it pays to retighten them. Nearly all of mine were stretched, and
> this antenna hasn't been up all that long - a few months.
>
> Dave Head
> K8DH

3583. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 03:16:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404942b1_3@corp.newsgroups.com>
Source record: 98954

Ed Price wrote:
> Well, four corners on your square loop, each corner 50 feet above ground;
> sounds like a horizontal plane loop. And that close to ground on HF, the
> maximum lobe is pretty close to straight up.

True for the one wavelength frequency. But a 75m horizontal loop has
a gain in excess of 10 dBi with a take-off-angle of 10 deg on 10m
according to EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3584. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 03:24:21 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4049448c_3@corp.newsgroups.com>
Source record: 98955

aunwin wrote:
> Yup, Richard you got me fair and square. I really thought
> that this discussion was going to be fruitful and pushed aside all past
> history.

Art, one thing to remember is that if you are going to need a transmission
line anyway, you might as well let it do the matching. A one-wavelength
dipole fed with 1/4WL of open-wire line is a pretty good match to coax.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3585. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 03:28:10 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <0tgi40dshlbsheujaus5nm5o64sqi28rvq@4ax.com>
Source record: 98956

I believe this thread originated with the paper on non-dissipative resistance by Bob Lay. The original thread was entitled, 'Max power transfer theorem'. It seems to have gone off track after a few postings.

I posted a msg on the original thread yesterday, 3-4-04, which at present is the last posting in that thread. Since my posting there is pertinent to this thread, I'd appreciate it if you'd all take a look at my thread there, rather than have me repost it here, because it's rather long, but what I believe is an important contribution to the thread.

TIA,

Walt Maxwell, W2DU

3586. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 03:40:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40494841.3809B88C@cwis.net>
Source record: 98957

Art,
Will a parallel circuit radiate? Yes. Will it have a
reasonable input impedance? Depends on what you call
'reasonable'. If you mean a 50 ohm input impedance, then
the answer's not likely! Thanks for the help offer but I
don't need it.
'Doc

PS - I was thinking for my self. No one asked me to
think for them.

3587. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 03:50:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40494ac2_3@corp.newsgroups.com>
Source record: 98959

w2du@iag.net wrote:
> Non-dissipative resistance is not well accepted or understood by many otherwise
> well informed engineers, because it has had little or no (or even incorrect)
> treatment in EE courses.

Yet the IEEE recognizes those two types of resistances with different definitions.
Definition (A) talks about "dissipation or other permanent loss". Definition (B)
simply says "The real part of impedance." Then a note: "Definitions (A) and (B)
are *NOT* equivalent ..." (emphasis mine)

The resistance in a resistor satisfies definition (A). The characteristic
impedance of a transmission line satisfies definition (B).
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3588. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 03:53:39 UTC
From: richardharrison@webtv.net
Message-ID: <6271-40494B43-16@storefull-3256.bay.webtv.net>
Source record: 98960

Steve Nosko wrote:
"Power is calculated from "RMS" values of voltage and current."

Steve is correct! I apologize.

If you have a square wave of minimum peak to peak value of zero volts,
its maximum peak to peak value must be 1.414 x the d-c value. Then,
1.414 Vd-c x 1.414 Id-c = 2 Pd-c.

2 Pd-c x 1/2 t = Pd-c for an average.

Best regards, Richard Harrison, KB5WZI

3589. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 04:24:21 UTC
From: richardharrison@webtv.net
Message-ID: <11836-40495275-165@storefull-3255.bay.webtv.net>
Source record: 98961

Hi Walter,
I am sorry for carelessly screwing up on my lossless resistance postings. The arithmetic wasn`t the center of my attention. I should have been more careful. I`ve apologized to Steve Nisko.

Starving the load for power during a percentage of the cycle limits power as surely as limiting current all of the time.

Time limitation can be nearly lossless. Resistor limitation is lossy and reduces efficiency.

Best regards, Richard Harrison, KB5WZI

3590. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 04:50:41 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <BMc2c.155655$hR.2888078@bgtnsc05-news.ops.worldnet.att.net>
Source record: 98962

Hi Walt,

I was the one who called this paper "crap", and I will stick to that characterization. (The wording is a bit strong, and I apologize for that.)

I have no argument with the notion of maximum power transfer or non-dissipative resistance. My comment was based on the extensive use of a goofy analogy to steam turbines. This sort of extended mechanical analogy is pointless and unprofessional.

Unless we are attempting to retrain displaced marine propulsion engineers, why should anyone assume that the reader will be more knowledgeable about steam systems than electrical systems? It is likely that the targeted reader is already more conversant with electrical systems.

This sort of analogy proves nothing. There is no "proof" that non-dissipative resistance exists. This term is a "definition", not something that can be proven. If one looks carefully, all of the "proof" arguments are circular in nature. Indeed, this is the only possibility when dealing with a definition. Self-consistency is all we can hope to achieve.

The 29 pages of the subject paper could be reduced to less than 10 without any loss of important content. The other 19 pages are crap. Majority rules.

73,
Gene
W4SZ

Walter Maxwell wrote:
> I believe this thread originated with the paper on non-dissipative resistance by
> Bob Lay. The original thread was entitled, 'Max power transfer theorem'. It
> seems to have gone off track after a few postings.
>
> I posted a msg on the original thread yesterday, 3-4-04, which at present is the
> last posting in that thread. Since my posting there is pertinent to this
> thread, I'd appreciate it if you'd all take a look at my thread there, rather
> than have me repost it here, because it's rather long, but what I believe is an
> important contribution to the thread.
>
> TIA,
>
> Walt Maxwell, W2DU
>

3591. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 05:11:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40495d87_6@corp.newsgroups.com>
Source record: 98963

Gene Fuller wrote:
> There is no "proof" that non-dissipative resistance exists. This term
> is a "definition", not something that can be proven.

Gene, seems to me that the necessity of two "non-equivalent"
definitions of "resistance" in the IEEE dictionary is proof
of something that needs differentiating in the language.

Did trees exist before the word "tree" was invented?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3592. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 05:24:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <21oi40t31avbndedh9l5llmlomilkmssdg@4ax.com>
Source record: 98964

On Fri, 05 Mar 2004 23:11:00 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> two "non-equivalent"
>definitions of "resistance" in the IEEE dictionary is proof
of nothing

3593. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 05:25:41 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <phd2c.78282$aH3.2390266@bgtnsc04-news.ops.worldnet.att.net>
Source record: 98965

Huhhh???

Cecil Moore wrote:

> Gene Fuller wrote:
>
>> There is no "proof" that non-dissipative resistance exists. This term
>
> > is a "definition", not something that can be proven.
>
> Gene, seems to me that the necessity of two "non-equivalent"
> definitions of "resistance" in the IEEE dictionary is proof
> of something that needs differentiating in the language.
>
> Did trees exist before the word "tree" was invented?

3594. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 11:01:07 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403060301.48e72c@posting.google.com>
Source record: 98966

"aunwin" <aunwin@insightbb.com> wrote in message
news:<Zf92c.186983$uV3.785337@attbi_s51>...
> Yup, Richard you got me fair and square. I really thought
> that this discussion was going to be fruitful and pushed aside all past
> history. Just shows how dumb I am..But then I am sure I will not be the last
> one to be taken in.
> You really executed the situation well
> Art

Why do you consider it non-fruitful? Because the answers didn't fit
the "program"? Seems to me, he answered all your questions quite
plainly and without obvious error. BTW, I DO consider a matching
device to be part of the antenna, if one is required. Go buy a
storebought yagi, 1/2 vertical, etc, etc.. All will include the
matching device as part of the deal. I've never seen any charge extra.
I've built many base fed 1/2 waves. All including a matching device as
part of the antenna. No, it's not the radiating element, but I still
consider it part of the antenna. Without it, you have a non fuctioning
piece of metal if you want to feed it with a 50 ohm radio, and
feedline. MK

3595. Re: Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 11:06:21 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403060306.5f2256e7@posting.google.com>
Source record: 98967

Harv nelson <harv@whatever.net> wrote in message
news:<X-mdnVSlLYUdkNXd4p2dnA@centurytel.net>...
> What was the question?

Are the three stooges still popular, alive, and if they were, would they use viagra?

>
> Wes Stewart wrote:
> > Yes
> >
> > No
> >
> > Maybe

3596. Re: Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 13:14:00 UTC
From: Harv nelson <harv@whatever.net>
Message-ID: <WNGdnU7t7tUBU9TdRVn-vw@centurytel.net>
Source record: 98968

Mark Keith wrote:
> Harv nelson <harv@whatever.net> wrote in message
news:<X-mdnVSlLYUdkNXd4p2dnA@centurytel.net>...
>
>>What was the question?
>
>
> Are the three stooges still popular, alive, and if they were, would they use viagra?
>
>
>>Wes Stewart wrote:
>>
>>>Yes
>>>
>>>No
>>>
>>>Maybe

OK

Today, I think the viagra is more popular than the Stooges. I think the
Stooges all became Hams :-)

Harv, AI9NL

3597. Re: LOG-PER: PCB-layout of LOG-PER by WA5VJB ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 13:31:13 UTC
From: fractenna@aol.com
Message-ID: <20040306083113.12245.00001038@mb-m02.aol.com>
Source record: 98869

>G'day everyone,
>
>(first post on this group)
>
>Awhile ago, I came across a log-periodic antenna (sold by Ramsey
>Electronics) for the UHF-range (900-2600 MHz). It was a PCB, with the
>shape of a log-per etched in copper. The design was by WA5VJB (Kent
>Britain, judging from the 'hits' on google ?)
>
>Anyway, I'm planning on building such an antenna, but can't seem to
>find the pcb-layout. Is this because it's 'proprietary' ? (at least
>many other Ramsey products are public, like their Doppler RDF, which
>is exactly as described in QST).
>
>So, does anyone have a PCB layout for these antenna's (there are 2
>designs, for different freq.ranges)? Or, if they're on the net, does
>anyone know where? I can't seem to find them...
>
>(or, has anyone built one/bought one, and is it worth the trouble of
>making one? Gain of a log-per isn't very high, and a Dipole is quickly
>made...)
>
>73,
>
>Peter Dingemans,
>The Netherlands.
>
>
>
>
>
>
>

Hi Peter,

The layout is a standard LPDA with a shorting stub. The stub is a via with a 2mm half loop: this prevents the back elements from being resonant at the higher freqs.

His son Kyle sells them on e-bay at a very reasonable price. Not hard to find. Cheaper than you can make'em:-)

73,
Chip N1IR

3598. Re: Read This....Please....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 14:31:00 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040306093100.15108.00000999@mb-m18.aol.com>
Source record: 98870

>
>Congratulations!!!!!!
>
>THAT'S IT!! All you have to do, and It Really works!!!
>
>Best Wishes

It is called chain letters, regardless how "legal" it is.
It is SPAM.

Get lost jerk!
Or Tony Soprano is going to visit you.

3599. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 14:43:53 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <4049e255.210215578@news.galilei.com>
Source record: 98871

Hi Bill

My father's home is of hip roof construction, with most of the guttering being around 14 to 18 feet from the ground. After insulating the downspouts from the continuous guttering and installing aluminum strapping between the seamless sections at the corners we had a wonderfully working loop skywire.
Because of it's close proximity to the ground it should not have worked as well as it did. But in more cases than not, it outperformed a wire loop skywire up 30 feet at my home.
The bandwidth at each tuned point was also much wider on the gutters than on a wire.
Although dad's house was technically in hole, it sat on a tall mound within that hole, so that roughly 20 feet away from the house itself, the height of the gutters would have been closer to 25 feet.

TTUL
Gary

3600. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 16:05:59 UTC
From: Trace Klassen <ve7rz@shaw.ca>
Message-ID: <HFm2c.723147$ts4.119731@pd7tw3no>
Source record: 98872

Load it up. I have found loops to have performed pretty well on HF. Now... not as well as a beam but still a fine performer. As far as lobes go, you will get different lobes for each band. There should be information out there on the net about that. However I would not use a AH4 ...rather feed it with coax to a coax fed tuner and you will do very well.

73 de VE7RZ

3601. Re: 20m Yagi height

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 16:15:53 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4048a214$1_2@newsfeed.slurp.net>
Source record: 98873

Depends on what you want to do on 20, Bill. "Normal" 20M ops can get away with 50-70 ft.; DXers usually demand 70 ft. minimum. Now, here's the kicker: it's not 70 ft. above the earth; it's 70 ft. above *ground reflection*. Where's your water table? How about local rooftops, and other ground clutter? Aw, heck, just put it up 100 ft., and you won't have to worry about it!!

73,
Mike KI6PR
El Rancho R.F.,CA

"Bill Grimwood" <bill@grimwood.net> wrote in message news:104haa7itigq9fb@corp.supernews.com...
> How high does a 20 meter yaga need to be. will 50 feet be enough or do I
> need 70?
>
> Any recomendations on a foldover tower that I will not have to climb so I
> can service tha antenna and rotor?
>
>
> 73
>
> W4WEG
>
>

3602. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 17:53:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404a1060_2@127.0.0.1>
Source record: 98874

Richard Clark wrote:
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>two "non-equivalent"
>>definitions of "resistance" in the IEEE dictionary is proof
>
> of nothing

On the contrary, it is proof that the IEEE thinks it is
necessary to differentiate between the two definitions.
--
73, Cecil, W5DXP

3603. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 18:20:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4h5k40dv1a10o1ccs6kkspp7j8hda6c6bu@4ax.com>
Source record: 98875

On Sat, 06 Mar 2004 11:53:46 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>On the contrary, it is proof
of nothing

3604. Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 18:45:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2d68srra1@sparta.btinternet.com>
Source record: 98876

A TALE OF TWO OLD WIVES

There are two cantankerous old wives:

One old wife asserts it is obvious radiation occurs mainly from the middle portion of a dipole because that's where the current is strongest and the magnetic field is most concentrated.

The other old wife asserts it is obvious radiation occurs mainly from the ends of a dipole because that's where the highest voltages occur and the electric field is most intense.

Since the pair of arguments are logically identical in form they are of equal validity. But because it is impossible to reconcile the two women .... they cannot BOTH be right .... only one conclusion can be drawn ...

... both arguments are false!

The old wives are telling tales. Citizens - drag 'em off to that old English custom - the ducking stool.

3605. Re: Three short answers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 18:52:04 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <vc7k40hsbq6s2300c8f2phgvt7cudj1ld8@4ax.com>
Source record: 98877

On Sat, 06 Mar 2004 07:14:00 -0600, Harv nelson <harv@whatever.net>
wrote:

|Mark Keith wrote:
|> Harv nelson <harv@whatever.net> wrote in message
news:<X-mdnVSlLYUdkNXd4p2dnA@centurytel.net>...
|>
|>>What was the question?
|>
|>
|> Are the three stooges still popular, alive, and if they were, would they use viagra?
|>
|>
|>>Wes Stewart wrote:
|>>
|>>>Yes
|>>>
|>>>No
|>>>
|>>>Maybe
|
|OK
|
|Today, I think the viagra is more popular than the Stooges. I think the
|Stooges all became Hams :-)

And they all post on r.r.a.a.

3606. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 19:34:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qj8k40tena5438m5jie7gtlh6feea710ju@4ax.com>
Source record: 98878

On Sat, 6 Mar 2004 18:45:48 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>A TALE OF TWO OLD WIVES
>
>There are two cantankerous old wives:
>
>One old wife asserts it is obvious radiation occurs mainly from the middle
>portion of a dipole because that's where the current is strongest and the
>magnetic field is most concentrated.
>
>The other old wife asserts it is obvious radiation occurs mainly from the
>ends of a dipole because that's where the highest voltages occur and the
>electric field is most intense.

Then there is our THIRD OLD WIFE who sitting at her kitchen table
looking out the window at the first two, takes notes of their
argument, sets them aside and returns to measuring mud's recuperative
powers and bottling it as a nostrum at the next fair.

What is the Q of her mud?

When the early English author, Samuel Richardson, wrote his ground
breaking novel "Pamela, or Virtue Rewarded" it was met immediately by
Henry Fielding's sardonic "Shamela." Fielding was responding to the
arrogance of the subtitles in that first work: "Aggressive Chastity"
and "Provocative Prudence"; dare I point out the parallels (non
resonant) that attract me to these current ironies?

73's,
Richard Clark, KB7QHC

p.s. for those who take umbrage at favourable quotation of eminent
British authors (oddly enough, Brits), please note this missive has
been sprinkled with on-topic references of: ground[breaking],
Field[ing], parallel[s], resonant, current and one technical enquiry
for Q that will no doubt be ignored in favor of off-topic
condemnations of these sources. ;-)

3607. GPS Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 19:38:50 UTC
From: anna@highrez.co.uk
Message-ID: <53a5fe4f.0403061138.ad53c6@posting.google.com>
Source record: 98879

Hello!
Does anyone know where I can find an antenna for this device
advertised on eBay?

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3082178579&category=4668

I really dont want to bid on it and find I cannot use the thing in the
end. The advert does not indicate if a standard antenna will fit. I
dont really care if the antenna is a stick antenna or magnetically
mounted.

How easy would it be to construct one from simple components.. I mean
is it like using a coat hanger as a car radio aerial?

Thanx!
Anna

3608. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 19:57:33 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <o8ak405buij4v4cmvrvqsan7v17e3lo1ri@4ax.com>
Source record: 98880

On Fri, 05 Mar 2004 21:50:55 -0600, Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
wrote:

>w2du@iag.net wrote:
>> Non-dissipative resistance is not well accepted or understood by many otherwise
>> well informed engineers, because it has had little or no (or even incorrect)
>> treatment in EE courses.

On Sat. 06 Mar 2004 Cecil Moore wrote:

>Yet the IEEE recognizes those two types of resistances with different definitions.
>Definition (A) talks about "dissipation or other permanent loss". Definition (B)
>simply says "The real part of impedance." Then a note: "Definitions (A) and (B)
>are *NOT* equivalent ..." (emphasis mine)
>
>The resistance in a resistor satisfies definition (A). The characteristic
>impedance of a transmission line satisfies definition (B).

What you said above is true, Cecil, but one more statement applies to Definition
(B). Although Definitions (A) and (B) are not equivalent, Definition (B) does
include the real part of the impedance of a dissipative resistor. The only way
to tell which is which is to determine which develops heat.

I still maintain that many otherwise well qualified engineers not aware of
Definition (B), and therefore reject the concept of a resistance that doesn't
dissipate power. And this applies to much more than the Zo of transmission
lines.

And because there still remains many who believe the RF power amplifier absorbs
and dissipates reflected power, I chose to try again to dispel that notion in my
post in the 'max power theorem' thread.

Walt Maxwell, W2DU

3609. Re: GPS Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 20:12:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h5bk40p2ujdjnmdugbijbih711e9i1skre@4ax.com>
Source record: 98881

On 6 Mar 2004 11:38:50 -0800, anna@highrez.co.uk (Anna) wrote:

>Hello!
> Does anyone know where I can find an antenna for this device
>advertised on eBay?
>
>http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3082178579&category=4668
>
>I really dont want to bid on it and find I cannot use the thing in the
>end. The advert does not indicate if a standard antenna will fit. I
>dont really care if the antenna is a stick antenna or magnetically
>mounted.
>
>How easy would it be to construct one from simple components.. I mean
>is it like using a coat hanger as a car radio aerial?
>
>Thanx!
>Anna

Hi Anna,

The antenna looks like it connects to an SMA connector located at the left of the picture. Your mission is to find a suitably connectored antenna. You could as easily just stick a wire of the proper thickness (what ever it takes) that is a few cm long into the center of that jack and see what happens. If nothing happens, you trim or add wire. If nothing persists, you need an antenna amplifier. If something does happen, it becomes a matter of optimization. It doesn't get much more complex than that.

However, given your presumptions of car radio aerial, coat hanger, etc., I would suspect you may have more issues with the output connector on the right. This represents the issues of powering and the data protocol which are the greater challenge. For the majority of us here, the opening bid cost is of no consequence (especially when it is on par with shipping charges) and if you have any interest, it should be approached as a tutorial. In other words, if the total is not seen as disposable income, you should pass as the cost is certainly going to rise with the learning curve: do you have the mating interface connector, its cabling, a source of power, a computer, software? Are you going to put it into a chassis/box? Will it always be in the same spot or portable (antenna needs vary here)? Doesn't make much sense in not being portable which suggests, do you have a laptop?

If you are adding this to an embedded processor design (free standing display of the data), then most of these questions are moot and your greatest risk is needing an antenna amplifier. Beyond that, it is only the necessity of cosmetics for the antenna itself.

73's
Richard Clark, KB7QHC

3610. Re: Antenna Swings In Wind - How Much Is Too Much

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-06 20:15:56 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <jack40tpa45aj6i14p07b9ldl4akmnurjb@4ax.com>
Source record: 98882

On Fri, 5 Mar 2004 20:24:59 -0600, "Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote:

>BTW, Dave: If you ever do disassemble that tubing over tubing joint, put a
>solid block of something inside where the bolts go through. No tubing is
>strong enough to resist collapse when you tighten the through bolts enough.

Hi George,

No, its tubing over a solid steel shaft. The shaft isn't going to deform. The (aluminum) tubing, which is the 2" mast for the antenna, _will_ deform sufficiently to clamp onto the SS shaft. That seems to be retarding the excessive swinging in the wind now, but I think it might be made somewhat better. A couple more 3/8" bolts, in a couple new holes thru the assembly should help, I think.

Dave Head

3611. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 00:19:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404a6abb$1_2@127.0.0.1>
Source record: 98883

Richard Clark wrote:
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>On the contrary, it is proof
>
> of nothing

Richard, how much do you pay for your blinders?
--
73, Cecil, W5DXP

3612. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 00:37:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ajrk40h7la1obfqm7r0g9brmic5hgjiqn0@4ax.com>
Source record: 98884

On Sat, 06 Mar 2004 18:19:20 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Richard, how much do you pay for your blinders?
Trying to sell yours?

3613. FA: LMR-400 Low Loss Coax, 50 Feet, BRAND NEW!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 00:55:57 UTC
From: Ivory Kid <ivorykid@yahoo.com>
Message-ID: <tqu2c.9363$506.8898@fed1read05>
Source record: 98885
Cross-posted to: alt.ham-radio,alt.ham-radio.marketplace,alt.radio.amateur,rec.ham-radio,rec.ham-radio.swap,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.swap

FA: 50 feet of Times Microwave Systems LMR-400 low loss coax cable. Brand New.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=48704&item=3083145446

Thanks For Looking!

3614. Re: GPS Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 02:20:22 UTC
From: "G.Beat" <now9spamgb@spam.comcast.net>
Message-ID: <GFv2c.130757$4o.168371@attbi_s52>
Source record: 98886

"Anna" <anna@highrez.co.uk> wrote in message
news:53a5fe4f.0403061138.ad53c6@posting.google.com...
> Hello!
> Does anyone know where I can find an antenna for this device
> advertised on eBay?
>
>
http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3082178579&category=4668
>
> I really dont want to bid on it and find I cannot use the thing in the
> end. The advert does not indicate if a standard antenna will fit. I
> dont really care if the antenna is a stick antenna or magnetically
> mounted.
>
> How easy would it be to construct one from simple components.. I mean
> is it like using a coat hanger as a car radio aerial?
>
> Thanx!
> Anna

Synergy has a number of used and excess inventory
Motorola 8-channel GPS units (and antennas) - check out their web site:
http://www.synergy-gps.com/

With the $ and British Pound exchange rates - bargain.
http://www.synergy-gps.com/Excess_Inventory.pdf

They also have a number of coax assemblies for various connectors (e.g. MCX,
SMA, SMB, TNC)

W9GB

3615. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 02:47:16 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <U2w2c.130951$4o.169497@attbi_s52>
Source record: 98887

No Cecil it is not about transmission lines it is about a parallel circuit
that radiates. Most of this group are Americans so they all read a book for
a formula that might fit what we are talking about.
One trots out a simple formula for the Q of a parallel circuit and yells
Eureeeeeka and they all follow like Lemmings hooking themselves on this
formula that they found in a book. It is a really simple formula but did
anybody think for themselves? Ofcourse
they didn't, its a simple formula so all that is needed is to parrot it out
and follow people who yell loudly that they know what they are talking
about. Roy and Shakespeare started it off years ago,
yes Wes and many others followed suit and Walter, well he said nothing.
Now I ask you Cecil they trot out this formula for Q, it is in books
so they feel safe or it would not be in a book right?
Now I ask you Cecil if you make an antenna array and you decide that you
require an input Z for this array what other values do you need for this
very simple formula bearing in mind that is a parallel circuit containing a
capacitor of unknown value a inductance of unknown value and then come up
with an air of knoweledge. Isn't it crazy ? On top of all that they use a
formula that is in a book
without determining where it comes from and what it is relevant to and what
the simple values represent. Reg saw the problem a long while ago but I
think he looked to the sky, shook his head
and maybe snickered to himself. I am sure he knows that when
you use a formula you can't pick and choose what you insert in a formula. If
you are thinking impedance, resistance or whatever
and you have a huge physical circuit that contains yards and yards
of members that radiate as well as connecting to other passive circuits one
would figure that these radiating members would have an impact on this
simple circuit that was in a book. And right from the beginning none of them
know how long these members are and what diameter and the configuration is
even tho they keep spewing their technical garbage because after all they
are experts and thus they determine who is right or wrong, whether they be
manufacturers, antenna designers or learning amateurs.
So tell me Cecil the parallel circuit is in a book and for years I have
tried to get people to think for themselves but they can't
because this simple formula is in a book so any thinking goes out the
window. I find it unbelievable that so many technical people
this side of the pond did not even think of looking beyond a book
that has this formula in it with only three components and not one thought
about inserting figures into it and resolving things for themselves. Yup the
idea of figuring out all those resistances was too much for them so they sat
back and trotted out phrases from a book that referred to a simple bandpass
circuit possibly the size of a finger nail and then sat back and said it was
good enough for a 160 meter antenna as we can ignore the wire or radiating

members up there as being inconsequential. I ask you Cecil as one who has also also bore the brunt of uneducated attacks what were they taught at school over here that allowed them to bandy this formula around without understanding what it means. No, don't tell me it is beyond anybody to provide a reasonable explanation
all they care about is crowding around Madame Guilliotine and cheering as somebody gets killed. Gentlemen if I can call you that
go now back to your books and figure out the pertinent figures that is needed for this simple formula and then think about all those nasty things you have said O and by the way remember you can add a shunt resistance if the impedance ratio gets a bit high but then you will have to go back to a book to find out where to put it,
I could tell you but I will refrain, a couple of years to figure it out may be beneficial

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:4047f05c_5@corp.newsgroups.com...
> aunwin wrote:
> > Not sure what you are getting at.
>
> Well, how about this, Art? A 1/2WL dipole is similar to a series circuit,
> i.e. low resistance increasing to each side. A one wavelength dipole is similar
> to a parallel circuit, i.e. high resistance decreasing to each side.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3616. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 03:26:26 UTC
From: richardharrison@webtv.net
Message-ID: <10928-404A9662-51@storefull-3258.bay.webtv.net>
Source record: 98888

Richard Clark wrote:
"What is the Q of her mud?"

First, the Q of mud is likely less useful than antenna Q. That is, not worth much.

Second, Q depends on mud consistency, temperature, location, and frequency of interest.

The earth behaves like a lossy capacitor. Above 10 MHz, the capacitnce in ordinary soil bypasses the resistance of the soil. Below 10 MHz, conductance of the soil shunts the capacitance making soil capacitance (permittivity) less important.

Soil as a lossy dielectric has a dielectric constant which is defined as the capacitance with dielectric material filling the void versus the capacitance without the dielectric material.

Thickness of a mud layer is relevant. At medium wave and lower frequencies, where the earth is mainly resistive, r-f renetration of the earth, not sea water, is so deep that rain wetting has little effect on propagation or refleection. But, at h-f, penetration of the earth is shallow. Water and salt content are significant to penetration and loss.

An ideal capacitor is lossless. There`s no dielectric leakage nor conductor loss resistance. Earth is not ideal.

Capacitor quality is judged by how much its current`s phase angle deviates from 90-degrees lead of the applied voltage. This deviation angle is called the capacitor`s "phase angle". The tangent of this angle is called the "dissipation factor". The reciprocal of this dissipation factor is the Q of the capacitor.

As mud is wet soil, it has Q, but not just one Q value.

Best regards, Richard Harrison, KB5WZI

3617. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 04:45:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hk9l409bl2ckf18p4j6aa4bfsnendhqpal@4ax.com>
Source record: 98889

On Sun, 07 Mar 2004 02:47:16 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

>Now I ask you Cecil
...
>Now I ask you Cecil
...
>So tell me Cecil
...
>I ask you Cecil
...

the world wonders....

Hi Art,

Waiting for the fresh mist of the mountain dell to grace your visage?
;-)

Perhaps you can tell us what source (no books count) of your
definition of Q? I doubt it was at the knee of lord plushbottom (a
rather grisly prospect, eh what?).

73's
Richard Clark, KB7QHC

3618. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 05:11:02 UTC
From: richardharrison@webtv.net
Message-ID: <13012-404AAEE6-132@storefull-3256.bay.webtv.net>
Source record: 98890

Art, KB9MZ wrote:
"It is really a simple formula so all that is needed is to parrot it out and follow people who yell loudly that they know what they know what they are talking about. Roy and Shakespeare started it off years ago, yes Wes and many others followed suit and Walter, well he said nothing. Now I ask you Cecil they trot out the formula for Q, it is in books so they feel safe or it would not be in a book right?"

All the people Art mentiomned have contributed to this newsgroup and understood how things work. They`ve read the books, benefitted from the knowledge and its application. They are confident in the book knowledge from experience.

They are real engineers who know what to use and how and when to use it. That`s different from the handbook experts who often blunder from shallow knowledge and lack of experience.

Books are accumulated knowledge that allow us to exploit the experience of others so we don`t have to repeat all the mistakes.

As for Q, it is a definition that simplifies formulas. The basis of Q is: the energy stored per cycle versus the energy lost per cycle. You can find that basic definition of Q in any number of books for yourself if you want to look it up.

The people Art listed aren`t yelling loudly that: "they hnow what they know!" They are demonstrating their knowledge in their postings which explain andf quantify. Some have their fun too.

Despite what Art posted, you can pick and choose what you insert in a formula. "What if"
is one of the most rewarding games arounnd.
Antenna programs are good examples.

Best regards, Richard Harrison, KB5WZI

3619. best way to sell Heliax, coax

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 05:35:07 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c2ecaa$1stpl0$1@ID-225206.news.uni-berlin.de>
Source record: 98891

Hi

Asking for some advice here,

I have several piles of heliax and Coax I want to sell, what are some good ways to sell it?
I also have several 800MHz yagis, a 220 MHz base antenna (9 foot) and a UHF base (colinerarray)
I have a bunch of radios I can sell on ebay motorols mobiles, a lot of the 800 trunking radios maxtrax.
Also have tower sections, about 6 25 foot the good kind
I also have a highpower 800 Mhz base station cabinet 5foot tall.
What is the best way to sell this stuff,?
Is shipping is too much for the large bulky items??

Thanks
if interested email me at thelmat AT safe-mail.net

3620. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 05:51:11 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c2ed8i$1t16n9$1@ID-225206.news.uni-berlin.de>
Source record: 98892

and the Fourth Old wife said "its really the force exerted on a far point,
as you sum up effect of each current in each part of the antenna" as she
pulled down the laundry off of the longwire. "It is a summation of all the
little ones (she means currents), and then you get a field" says she,
walking back the the radio shack with he head just a buzzing with
electrons.(yea ... she bonkers) She was my Fields Proff too.

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:10928-404A9662-51@storefull-3258.bay.webtv.net...
> Richard Clark wrote:
> "What is the Q of her mud?"
>
> First, the Q of mud is likely less useful than antenna Q. That is, not
> worth much.
>
> Second, Q depends on mud consistency, temperature, location, and
> frequency of interest.
>
> The earth behaves like a lossy capacitor. Above 10 MHz, the capacitnce
> in ordinary soil bypasses the resistance of the soil. Below 10 MHz,
> conductance of the soil shunts the capacitance making soil capacitance
> (permittivity) less important.
>
> Soil as a lossy dielectric has a dielectric constant which is defined
> as the capacitance with dielectric material filling the void versus the
> capacitance without the dielectric material.
>
> Thickness of a mud layer is relevant. At medium wave and lower
> frequencies, where the earth is mainly resistive, r-f renetration of the
> earth, not sea water, is so deep that rain wetting has little effect on
> propagation or refleection. But, at h-f, penetration of the earth is
> shallow. Water and salt content are significant to penetration and loss.
>
> An ideal capacitor is lossless. There`s no dielectric leakage nor
> conductor loss resistance. Earth is not ideal.
>
> Capacitor quality is judged by how much its current`s phase angle
> deviates from 90-degrees lead of the applied voltage. This deviation
> angle is called the capacitor`s "phase angle". The tangent of this angle
> is called the "dissipation factor". The reciprocal of this dissipation
> factor is the Q of the capacitor.
>
> As mud is wet soil, it has Q, but not just one Q value.
>

> Best regards, Richard Harrison, KB5WZI
>

3621. Microwave BPL??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 07:35:46 UTC
From: thatcher <thatc4@net.com>
Message-ID: <c2ek1f02dc5@enews3.newsguy.com>
Source record: 98893

Anyone know much about this supposedly non-interfering BPL.

3622. Re: Microwave BPL??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 10:35:13 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <BVC2c.33735$qL1.7143@fed1read02>
Source record: 98894

"thatcher" <thatc4@net.com> wrote in message
news:c2ek1f02dc5@enews3.newsguy.com...
> Anyone know much about this supposedly non-interfering BPL.

Yeah, go look up "oxymoron"

Ed
wb6wsn

3623. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 11:02:54 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403070302.6896deb8@posting.google.com>
Source record: 98895

"aunwin" <aunwin@insightbb.com> wrote in message
news:<U2w2c.130951$4o.169497@attbi_s52>...
> No Cecil it is not about transmission lines it is about a parallel circuit
> that radiates.

Where did he mention transmission lines? I thought he was comparing a
1/2 wave dipole to a full wave dipole as far as circuit description...

Most of this group are Americans so they all read a book for
> a formula that might fit what we are talking about.

All? I think not, Art...

> One trots out a simple formula for the Q of a parallel circuit and yells
> Eureeeeeka and they all follow like Lemmings hooking themselves on this
> formula that they found in a book.

They did? I guess I missed it...

It is a really simple formula but did
> anybody think for themselves?

I can ONLY think for myself. I have failed to master the art of
thinking for others...

Ofcourse
> they didn't, its a simple formula so all that is needed is to parrot it out
> and follow people who yell loudly that they know what they are talking
> about.

I have no idea what you are talking about...

Roy and Shakespeare started it off years ago,
> yes Wes and many others followed suit and Walter, well he said nothing.

I thought Shakespeare was an old fart that lived in England. How did
he join this illustrious grouping of Americans?

> Now I ask you Cecil they trot out this formula for Q, it is in books
> so they feel safe or it would not be in a book right?

Right?

> Now I ask you Cecil if you make an antenna array and you decide that you
> require an input Z for this array what other values do you need for this
> very simple formula bearing in mind that is a parallel circuit containing a
> capacitor of unknown value a inductance of unknown value and then come up
> with an air of knoweledge.

Why are the values unknown? But even discarding that question, what is
the big deal about designing a parallel circuit? I've done it many,
many times. The formula for Q never even entered my skull. I really
don't even need inductance or cap values. Why? Cuz I'm the wizard of
burdine street....:/ I work from sense of smell. :) But I'll give you
a hint as it applies to a base fed 10m 1/2 wave vertical. The usual
cap value is appx 50 pf. Didn't need no stinkin formula to come up
with that...Dang...I must surely be cracked to work the way I do...

Isn't it crazy ? On top of all that they use a
> formula that is in a book
> without determining where it comes from and what it is relevant to and what
> the simple values represent.

I'm curiuous...Who was the American that offered this formula for
parallel circuits? I must have missed it.

Reg saw the problem a long while ago but I
> think he looked to the sky, shook his head
> and maybe snickered to himself.

I think Reg does that nearly every day. If the wine and
"entertainment" is good, he may even snicker out loud...

I am sure he knows that when
> you use a formula you can't pick and choose what you insert in a formula. If
> you are thinking impedance, resistance or whatever
> and you have a huge physical circuit that contains yards and yards
> of members that radiate as well as connecting to other passive circuits one
> would figure that these radiating members would have an impact on this
> simple circuit that was in a book.

What simple circuit? What book?
And right from the beginning none of them
> know how long these members are and what diameter and the configuration is
> even tho they keep spewing their technical garbage because after all they
> are experts and thus they determine who is right or wrong, whether they be
> manufacturers, antenna designers or learning amateurs.

Why do we not know what diameter and the configuration is? Who's fault
is this?

> So tell me Cecil the parallel circuit is in a book and for years I have
> tried to get people to think for themselves but they can't
> because this simple formula is in a book so any thinking goes out the
> window.

Can we spell broke record? Art, again, I ONLY think for myself. You
couldn't afford my price to think for you, or any others... I don't
think for free. Besides, I don't need any extra leads or wiring coming
out of my ears, mouth, or my other skull openings...

I find it unbelievable that so many technical people
> this side of the pond did not even think of looking beyond a book

> that has this formula in it with only three components and not one thought
> about inserting figures into it and resolving things for themselves.

I will find it amazing if anyone can understand what the heck you are
harping about...Frankly, all this extended diatribe is confusing to
most I think. Double so, if you are an ignorant redneck like me...

Yup the
> idea of figuring out all those resistances was too much for them so they sat
> back and trotted out phrases from a book that referred to a simple bandpass
> circuit possibly the size of a finger nail and then sat back and said it was
> good enough for a 160 meter antenna as we can ignore the wire or radiating
> members up there as being inconsequential.

As previously noted. It's hard to understand what the heck you are
talking about. I remember no such thing ocurring...Thread name?

I ask you Cecil as one who has
> also also bore the brunt of uneducated attacks what were they taught at
> school over here that allowed them to bandy this formula around without
> understanding what it means.

Cecil was attacked? Did he survive? Did the formula survive?

No, don't tell me it is beyond anybody to
> provide a reasonable explanation

Ok, I won't...

> all they care about is crowding around Madame Guilliotine and cheering as
> somebody gets killed.

http://www.stud.hh.se/org/hasp/02/gala/6.html
I see them cheering and crowding around her, but I see no body...

Gentlemen if I can call you that

No, I'm a redneck. Most "gentlemen" shave their legs, and eat quiche
energy bars...

> go now back to your books and figure out the pertinent figures that is
> needed for this simple formula

Why? Will there be a test?

and then think about all those nasty things

Nasty? Whoa daddy, stand back....He's hurling a nasty...

> you have said O and by the way remember you can add a shunt resistance if
> the impedance ratio gets a bit high but then you will have to go back to a
> book to find out where to put it,

He will? What if he doesn't own the book?

> I could tell you but I will refrain, a couple of years to figure it out
> may be beneficial

Typical....What, is this some big dark secret?
I think we should rename this group, rec.radio.peyton.place :/
MK

3624. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 11:12:05 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403070312.c406cc3@posting.google.com>
Source record: 98896

"Alex" <piratearchive@rogers.com> wrote in message
news:<FeW1c.144101$Qg7.1455@news04.bloor.is.net.cable.rogers.com>...
> Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m? I have
> a large tree with a branch at 70' and i thought i'd pull the antenna up with
> a rope. Should i make the sleeve out of copper pipe? A 1/2 wave vertical
> would be a nice antenna for 40m and i thought a coaxial sleeve antenna would
> give me a great feed impedance. Any thoughts? The coax are 100' of RG8.

Myself, I would probably feed it from the base. One problem often seen
with sleeve dipoles like that is decoupling the feedline from the
antenna. if you do center feed it, pay close attention to feedline
decoupling. MK

3625. Re: GPS Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 13:43:36 UTC
From: John <jocjo_john@yooha.com>
Message-ID: <c2f8uc07tb@enews4.newsguy.com>
Source record: 98897

> How easy would it be to construct one from simple components.. I mean
> is it like using a coat hanger as a car radio aerial?

Not quite. See http://www.arrl.org/tis/info/pdf/0210036.pdf for construction article.

John

3626. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 15:21:40 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <404B3E04.4F939EB7@cwis.net>
Source record: 98898

Mark,
From the following list, select all that apply.
1. There's a full moon.
2. "Don't know whether he's/I'm washing or hanging out."
3. "He's/I'm as lost as a ball in high weeds."
4. "Shazzam, Sargent Carter!"

I've decided that Art is a force of nature, sort of like
the tides. One minute it's coming in, the next minute it's
going back out. I'm in the process of compiling a "Tide
Table" for Art. The period is fairly predictable, it's the
variations that are a bit tricky, haven't got a handle on
all those, yet. Observations would be appreciated...
'Doc

3627. Re: best way to sell Heliax, coax

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 15:23:20 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <404B3E68.E408FB43@cwis.net>
Source record: 98899

John,
By the pound, as is, where is...
'Doc

3628. Re: Microwave BPL??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 16:07:57 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c2fhcu$1sjbv8$1@ID-225206.news.uni-berlin.de>
Source record: 98900

BPL is data "conducted" over powerlines below about 30(?)MHz,
microwave bands are not involved.
Ham bands suffer, see FCC site or ARRL (protested)
BPL = "city wide longwire antenna" with Data on it.

"thatcher" <thatc4@net.com> wrote in message
news:c2ek1f02dc5@enews3.newsguy.com...
> Anyone know much about this supposedly non-interfering BPL.

3629. Re: best way to sell Heliax, coax

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 17:02:21 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <45lm405a78h5huvovek1dn71al27r0jrfj@4ax.com>
Source record: 98901

On Sat, 6 Mar 2004 23:35:07 -0600, "John Smith" <pani@yahoo.com>
wrote:

>Hi
>
>Asking for some advice here,
>
>I have several piles of heliax and Coax I want to sell, what are some good
>ways to sell it?

I'm interested in some 7/8ths Heliax it you are near Central Michigan.

As to the how, it' s pretty much as Doc says, "Where is as is". The
stuff is pretty bulky to ship and fragile when not on a spool.

I had over a 100 feet of Heliax given to me and ended up throwing it
away. It had been bent just enough to kink it in several spots making
the longest useable piece about 30 feet. Also the connectors (for
7/8s are between $80 and $100 each. Not many want to spend that kind
of money for just the connectors.

Good Luck

Roger Halstead (K8RI & ARRL life member)
(N833R, S/N CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>I also have several 800MHz yagis, a 220 MHz base antenna (9 foot) and a UHF
>base (colinerarray)
>I have a bunch of radios I can sell on ebay motorols mobiles, a lot of the
>800 trunking radios maxtrax.
>Also have tower sections, about 6 25 foot the good kind
>I also have a highpower 800 Mhz base station cabinet 5foot tall.
>What is the best way to sell this stuff,?
>Is shipping is too much for the large bulky items??
>
>Thanks
>if interested email me at thelmat AT safe-mail.net
>

3630. Re: Microwave BPL??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 18:09:51 UTC
From: caljsi@aol.com
Message-ID: <20040307130951.22733.00000966@mb-m10.aol.com>
Source record: 98902

Some years ago the FCC reallocated the 3.65 to 3.7 GHz band for broadband internet service. This effectively sterilized 50 MHz of spectrum for international satellite communications. To the best of my knowledge, this reallocated spectrum was never used for broadband internet service by those who clamored for the reallocation
Cal K4JSI

3631. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 18:58:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7eqm40dgamhp1rekhndg1vj0524q5069it@4ax.com>
Source record: 98903

On Sat, 6 Mar 2004 21:26:26 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:
>As mud is wet soil, it has Q, but not just one Q value.

Hi Richard,

Well, as usual, Reggie asks more questions than he can field, and too often those of the "first principles" has him gummed up in areas he so loudly touts (how many threads does he spin on about the antenna as transmission line only to have him turn it into a half wave inductor?)

As to the wet soil. a point well taken. If we learn anything from the experience of the robots now traversing the Martian landscape (and politely stepping around the issue of the european hulks littering it nearby), measurements do indeed reveal our planet and its water constitute a ball of mud in comparison.

Another shortfall of Reggie's mocking tones is when he demands numbers when he tires of pontifications (I note no numbers from his holiness of late). As such, we might rely on a book (-gasp!-) which serves these purposes. I would further note that our two greatest anti-intellectualists share a common trait confounding their heritage - anglophobia (railing against popular British poets and writers to clear their spleen it seems). I shan't be poetic with my recitation however. ;-)

One of the finest books to serve as an RF reference is found with
"TV and Other Receiving Antennas,"
Arnold B. Bailey

It literally delivers its promise offered in its sub-title:
"Theory and Practice"

[do I hear teeth grinding over another American author?]

In regard to my question of the Q of mud, it answers with many, many examples offered in both numbers and graphical form (Fig. 5-13 which Richard can confirm and/or amplify).

Here we find the Q of dry soil (which in the comparison to Martian samples is literally dripping with water) stands at
Q = 1 @ .5MHz
Q = 4 @ 1.5MHz
Q = 40 @ 20MHz
Q = 400 @ 200MHz

The Q of wet soil
Q = 0.1 @ .5MHz
Q = 1 @ 5MHz
Q = 4 @ 20MHz
Q = 40 @ 200MHz

Let's go further because Reggie's divertissimo has been drained of its entertainment and we really should be getting into real and useful information instead. The Q of water!

The Q of fresh water
Q = 1 @ .2MHz
Q = 10 @ 2MHz
Q = 100 @ 20MHz

The Q of ocean water
Q = 0.004 @ 1MHz
Q = 0.04 @ 10MHz
Q = 0.4 @ 100MHz

I would suggest many ponder these last two samples as they run contrary to many myths offered here about conductivity and the pleasures of an ocean front home and the rationale of DX. I will leave that as a teaser....

73's
Richard Clark, KB7QHC

3632. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 19:10:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mdsm4010a4s2oljufnakjcq6218lec3elm@4ax.com>
Source record: 98904

On 7 Mar 2004 03:02:54 -0800, nm5k@wt.net (Mark Keith) wrote:

>>I ask you Cecil as one who has
>> also also bore the brunt of uneducated attacks what were they taught at
>> school over here that allowed them to bandy this formula around without
>> understanding what it means.
>
>Cecil was attacked? Did he survive? Did the formula survive?

Hi Mark,

As Art describes his imaginary friends, the three of them must hang
out on this hill disappointed with us all. Instead, I feel sorry for
them; it must be a bitch when your nose itches and your hands are
full.

73's
Richard Clark, KB7QHC

3633. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 19:15:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dqsm40dhlmhnkrtsrcnkbeh1dmamcgqmb8@4ax.com>
Source record: 98905

On 7 Mar 2004 03:12:05 -0800, nm5k@wt.net (Mark Keith) wrote:

>"Alex" <piratearchive@rogers.com> wrote in message
news:<FeW1c.144101$Qg7.1455@news04.bloor.is.net.cable.rogers.com>...
>> Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m? I have
>> a large tree with a branch at 70' and i thought i'd pull the antenna up with
>> a rope. Should i make the sleeve out of copper pipe? A 1/2 wave vertical
>> would be a nice antenna for 40m and i thought a coaxial sleeve antenna would
>> give me a great feed impedance. Any thoughts? The coax are 100' of RG8.
>
>Myself, I would probably feed it from the base. One problem often seen
>with sleeve dipoles like that is decoupling the feedline from the
>antenna. if you do center feed it, pay close attention to feedline
>decoupling. MK

Hi Mark,

That is the point of a sleeve dipole (and the design of the Isopole)
in that the quarterwave section below is the decoupling.

I've plaid a variant upon this by attaching a ground wire to a point
on the shield, down and away from the feed point. It requires that I
strip away a portion of the coax outer dielectric to do this, and I
use a wire connected to a BNC female jack as the radiator portion (the
line is a conventionally terminated BNC-BNC coax). This way I can
rummage through combinations of lengths and ground or non-ground
situations to suit the purpose (usually field day variations). I
prefer off-center fed designs.

73's
Richard Clark, KB7QHC

3634. Re: Microwave BPL??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 21:19:19 UTC
From: thatcher <thatc4@net.com>
Message-ID: <c2g4g2011g2@enews1.newsguy.com>
Source record: 98906

John Smith wrote:

>BPL is data "conducted" over powerlines below about 30(?)MHz,
>microwave bands are not involved.
>Ham bands suffer, see FCC site or ARRL (protested)
>BPL = "city wide longwire antenna" with Data on it.
>
>"thatcher" <thatc4@net.com> wrote in message
>news:c2ek1f02dc5@enews3.newsguy.com...
>
>
>>Anyone know much about this supposedly non-interfering BPL.
>>
>>
>
>
>
>
But I heard there is a microwave version of BPL.

3635. 2.4 GHz waveguide/horn antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 22:44:00 UTC
From: Jeppe <no@spam.com>
Message-ID: <799n40llc1m8eoj66hppstjeo9i56rc47v@4ax.com>
Source record: 98907

I am experimeting with 2.4 GHz pyramidal hornantennas like this one:

http://seattlewireless.net/index.cgi/CardboardHorn

But I ask myself: what is the optimal hight of the waveguide part?

Of course the hight of the waveguide has to be more than lambda/4 in order for the lambda/4 antenna rod to fit in it. But how much bigger should it be?

Jeppe

3636. And they are what and what?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 23:19:35 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <b6O2c.27016$aT1.26336@newsread1.news.pas.earthlink.net>
Source record: 98908

Don't have a copy of said dictionary at hand.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40495d87_6@corp.newsgroups.com...
> Gene Fuller wrote:
> > There is no "proof" that non-dissipative resistance exists. This term
> > is a "definition", not something that can be proven.
>
> Gene, seems to me that the necessity of two "non-equivalent"
> definitions of "resistance" in the IEEE dictionary is proof
> of something that needs differentiating in the language.
>
> Did trees exist before the word "tree" was invented?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3637. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-07 23:33:45 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <tjO2c.52299$%d3.4431556@twister.southeast.rr.com>
Source record: 98909

"aunwin" <aunwin@insightbb.com> wrote in message
news:aqK1c.176934$jk2.646180@attbi_s53...
> Why must only series circuits be considered for radiators?.

The last discription I saw of a quarter wavw antenna was that of a paralell circuit. Isnt that basically how a capacity hat shortens an antenna, by increasing the paralell capacitance
>
> What is it about parallel circuits that make them
> unsuitable?

Who says they are not.

>
> Is stagger tuning a parallel circuit ?

This question being out of context with the other questions seems to indicate you really dont know what stagger tuning means so I dont know how to reply.
>
> Regards
> Art
>
>

3638. Re: And they are what and what?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 00:43:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2gfj4keg1@sparta.btinternet.com>
Source record: 98910

The phrase "None-dissipative resistance" is utter nonsence.

It serves no practical purpose whatsover. It has no educational value such as imaginary jX.

Its very mention serves only to confuse, particularly to apprentices in the electrical engineering trade.

As a practicing engineer for nigh on 60 years I had never heard of it until the old wives and authors on this newsgroup began wittering about it for the sole but futile purpose of demonstrating how knowledgeable they are and for making money. I have managed very well without it thank you.

They are from the same class as they who consider radiation from a dipole is mainly from the middle third. But I suppose they must be tolerated. Live and let live, eh!

And, to the particular individual concerned, I managed to write this in plain English without swallowing Websters Morocco-bound Dictionary.

Having got that off my chest I will finish this nice glass of Californian Red (yes, American. I don't believe in trade sanctions) and retire to bed. Good night everybody.

Reg.

3639. Steppir Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 00:50:12 UTC
From: Ronald Walters <rwalters8@cfl.rr.com>
Message-ID: <8rP2c.189224$B81.2344405@twister.tampabay.rr.com>
Source record: 98911

I am seriously considering replacing a TA-33 with a 3-element Steppir. Have heard allot of great things but no negatives. Anyone care to comment? Your thoughts are appreciated.

Ron W4LDE

3640. Re: And they are what and what?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 00:52:37 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <ptP2c.137693$4o.178517@attbi_s52>
Source record: 98912

Reg Edwards wrote:

SNIPPED
> Having got that off my chest I will finish this nice glass of Californian
> Red (yes, American. I don't believe in trade sanctions) and retire to bed.
> Good night everybody.
> ----
> Reg.

Good morning Reg,

Oh Reg: I've spent more than a year building a mental image of the gentleman englishman only to have it destroyed by "Californian Red".

A nice continental Sherry would preserve my image!

I use only a gram or two of altar wine once a day in the morning! To each his own, but you do have to rebuild my image of you. :-)

3641. Re: Steppir Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 00:52:53 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <104nh962s6ulfe4@corp.supernews.com>
Source record: 98913

"Ronald Walters" <rwalters8@cfl.rr.com> wrote in message
news:8rP2c.189224$B81.2344405@twister.tampabay.rr.com...
> I am seriously considering replacing a TA-33 with a 3-element Steppir.
Have
> heard allot of great things but no negatives. Anyone care to comment?
Your
> thoughts are appreciated.
>
> Ron W4LDE
>
>

I have one of the first 3 element SteppIR antennas which I have disassembled
to update to a 4 element.
Also I have a BiggIR vertical on my aluminum roof.
This is a serious product.
Success has it's disadvantages in that they've been swamped from time to
time.
73
H.
NQ5H

3642. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 01:06:28 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <oGP2c.80540$ko6.430930@attbi_s02>
Source record: 98914

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:2806-404788A9-83@storefull-3252.bay.webtv.net...

> A parallel resonsant circuit is a high impedance (low admittance).
est regards, Richard Harrison, KB5WZI
>
Now go back to your books since your memory is poor and check out what
restrictions apply.
Do you ignore all connection lengths between lumped circuits.
Do they say all parallel circuits ALWAYS have a high impedance without
exception?
Does this simple formula account for radiation ?
Does a parallel circuit in macro form that radiates apply with respect to
this simple formula regardless of interconnection lengths?
Must all distributed passive forms be ignored and why?

3643. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 01:19:43 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <PSP2c.82131$PR3.1190686@attbi_s03>
Source record: 98915

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:25069-404837DB-307@storefull-3257.bay.webtv.net...
>
onant as a model may be based on application or impedance.
>
> A parallel resonant circuit exhibits high impedance.

Read what the book says about circuits that exhibit high impedance and what
the formula omits as being inconsequential
With reference to a large radiating parallel circuit containing both
distributed and lumped passive circuits
figure out what the numbers are that you can or can not place in the simple
circuit that proves your point.

> I regret Art fails to see the relevance of much of the accurate
> information offered.
>
> Best regards, Richard Harrison, KB5WZI
>

3644. UK advert: TV distribution gear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 01:40:24 UTC
From: wrightsaerials@aol.compromise
Message-ID: <20040307204024.09332.00001132@mb-m12.aol.com>
Source record: 98916

The vendor name is tvaerialguy
http://www.wrightsaerials.tv/index.html

3645. Re: Microwave BPL??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 01:45:32 UTC
From: mxduffie@axtxom.net
Message-ID: <nujn40dehi2l0vm18tt9qki0u85feu8uge@4ax.com>
Source record: 98918

On Sun, 07 Mar 2004 13:19:19 -0800, thatcher <thatc4@net.com> wrote:

> But I heard there is a microwave version of BPL.

Then it isn't BPL. B=Broadband over P=Power L=Lines.

Perhaps you're referring to WISP? Wireless ISP? Works great, using it!

gm
--
Replace x in adr with c

3646. Re: Microwave BPL??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 01:47:08 UTC
From: "Carl R. Stevenson" <wk3cqth@wk3c.com>
Message-ID: <fO6dnUJxh8qfTNbdUSdV9g@ptd.net>
Source record: 98917

"thatcher" <thatc4@net.com> wrote in message
news:c2ek1f02dc5@enews3.newsguy.com...
> Anyone know much about this supposedly non-interfering BPL.

There is a company (called "Corridor" IIRC) that claims to have a BPL technique that operates at 5 GHz using the power line as a "G-line" transmission line.
(basically a conical "launcher" at each end of a single wire ... used in the past as a low-loss UHF/microwave transmission line, but not hear of much in recent years)

If it works, this could be better than the 2-80 MHz stuff by a bunch ...

73,
Carl - wk3c

3647. Re: Steppir Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 02:37:03 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <i%Q2c.201100$uV3.815815@attbi_s51>
Source record: 98820

Why not wait until sun spot cycle turns around. I think I would wait a few years and then see what is on the market, it is a lot of money to spend for bands that are presently deteriating.
Art

"Ronald Walters" <rwalters8@cfl.rr.com> wrote in message news:8rP2c.189224$B81.2344405@twister.tampabay.rr.com...
> I am seriously considering replacing a TA-33 with a 3-element Steppir. Have
> heard allot of great things but no negatives. Anyone care to comment? Your
> thoughts are appreciated.
>
> Ron W4LDE
>
>

3648. Re: And they are what and what?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 02:37:04 UTC
From: Bob <nowhere@nospam.org>
Message-ID: <1%Q2c.1496$6y1.214277@news20.bellglobal.com>
Source record: 98821

Reg,

Well said! Now go treat yourself to a Wyndham Estates Bin 555 Shiraz, Tyrell's Long Flat, or perhaps a Cesari Amarone Valpolicella.

(what particular Californian Red were you enjoying? There's a Corbett Canyon that's not too bad, but I have found very few that are worthy of mention.)

B.

3649. Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 02:38:14 UTC
From: New & Improved - N/F John <trompiano2000@yahoo.com>
Message-ID: <404bdb63$0$3101$61fed72c@news.rcn.com>
Source record: 98819

I live in Passaic County in New Jersey and I can see a hugh red and white antenna east of my location. I can't tell how far it is but it is far. From Clifton I can see Garfield and the antenna is in that direction.

Anybody have any clues?

3650. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 03:18:46 UTC
From: richardharrison@webtv.net
Message-ID: <13012-404BE616-280@storefull-3256.bay.webtv.net>
Source record: 98822

Jimmy wrote:
"The last description I saw of a quarter wave antenna was that of a parallel circuit. Isn`t that basically how a capacity hat shortens an antenna, by increasing the parallel capacitance?"

Parallel or series hardly makes any difference.

The 1/4-wave antenna is essentially a 1/2-wave antenna with the missing 1/4-wave piece replaced by a ground reflection. Terman illustrates current distribution in a doublet on page 866 of his 1955 edition. He says:
"These current distributions are those that would be obtained by applying the exciting voltage in series with the wire at a current loop, or to one end of the wire."

The series representation is conventional and comes from the distributed nature of resistance, inductance, and capacitance along the antenna wire.

From the generator or transmission line`s point of view, it may be more convenient to view the antenna load as a parallel resonant circuit. Parallel or series circuit, they are mathematically interchangeable by using conversion formulas which appear in various books including the ARRL Antenna Book. Use whichever form you like.

There is a difference between a length of wire and a tank circuit. The wire has multiple harmonically related resonances. The tank circuit does not. It has only one resonance.

Jimmy also wrote:
"Who says they are not (parallel circuits suitable to model an antenna)?"

Yes, Art Unwin, who says they are not?

Jimmy also wrote:
"This question (is stagger tuning a parallel circuit?) being out of context with the other questions seems to indicate you really don`t know what stagger tuning means so I don`t know how to reply."

Art for years has hijacked threads to advertise a tuned loop conjoined with a dipole. One of his claims is that the loop is tuned to one frequency and the dipole is tuned to a different frequency ergo a broadband antenna is produced. You must guess between the lines to make sense of what Art says.

Best regards, Richard Harrison, KB5WZI

3651. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 03:52:10 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040307225210.29724.00001124@mb-m21.aol.com>
Source record: 98823

>I'm in the process of compiling a "Tide
>Table" for Art. The period is fairly predictable, it's the
>variations that are a bit tricky, haven't got a handle on
>all those, yet. Observations would be appreciated...
> 'Doc
>
>

Art has period? That would 'splain it. My wife gets puzzling when she gets the period. We just have a full moon, maybe tides are tied with periods, so mark your calendahs.

F%$#& Sopranos are on! Sure beats medium impedance Q tip circuits (circus?), whatever, fugettaboutit.

One has to first comprehend the current distribution in the loading coils, then can proceed to other charted waters.

Bada BUm

3652. Re: Steppir Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 03:55:31 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040307225531.29724.00001125@mb-m21.aol.com>
Source record: 98824

>
>Why not wait until sun spot cycle turns around. I think I would wait a few
>years and then see what is on the market, it is a lot of money to spend for
>bands that are presently deteriating.
>Art
>

When the bands are "deteriating", that's when you need good antenna. When bands are good, the wet noodle will suffice. It is cheaper now than in the next sunspot cycle.

Nothing like a "good" advice :-)

Yuri

3653. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 03:56:20 UTC
From: richardharrison@webtv.net
Message-ID: <24942-404BEEE4-336@storefull-3254.bay.webtv.net>
Source record: 98825

Art, KB9MZ wrote:
"Now go back to your books since your memory is poor and check out what restrictions apply."

My statement was: "A parallel resonant circuit is a high impedance (low admittance)."

I reaffirm that statement. It assumes a high-quality circuit. It is general and nonspecific. It is not all-inclusive. It allows exceptions.

In the ideal case, only perfect inductance and capacitance comprise the circuit. Z = XL/R. As R goes to zero, Z goes to infinity.

The impedance of a parallel resonant circuit is:
Q(XL).

Best regards, Richard Harrison, KB5WZI

3654. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 04:25:43 UTC
From: Jimbo <jimbo@nospam.com>
Message-ID: <404BF5C8.35312D57@nospam.com>
Source record: 98826

hi john,

could this be the new tv tower(s) to replace the one on top
ot the WTC in NYC ?

jimbo

New & Improved - N/F John wrote:

> I live in Passaic County in New Jersey and I can see a hugh red and white
> antenna east of my location. I can't tell how far it is but it is far.
> From Clifton I can see Garfield and the antenna is in that direction.
>
> Anybody have any clues?

3655. Re: Steppir Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 04:47:36 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <IVS2c.9012$%06.8366@newsread2.news.pas.earthlink.net>
Source record: 98827

I would LOVE to have one of those! The only negatives I can think of are:
1. Since there is no loading, they are FULL sized.
[I don't have the turning radius available. 8-( ]
2. They require an extra cable for the stepper motor.
If you can get past those things, ENJOY! :-)

73, Ed W6LOL

"Ronald Walters" <rwalters8@cfl.rr.com> wrote in message
news:8rP2c.189224$B81.2344405@twister.tampabay.rr.com...
> I am seriously considering replacing a TA-33 with a 3-element Steppir.
Have
> heard allot of great things but no negatives. Anyone care to comment?
Your
> thoughts are appreciated.
>
> Ron W4LDE
>
>

3656. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 06:11:32 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <o8U2c.83713$PR3.1212997@attbi_s03>
Source record: 98828

Well you are too far gone down memory lane, you are unable to focus for any length of time and can't remember things or what you have said in the past.No wonder you keep close to books, your memory has gone. Now go back to your book and see that the high impedance comes from a parallel circuit with lumped components to which radiation is not considered and there is no length to the connections between them. It does not mean that a radiating antenna which is in a parallel configuration will have a high impedance., It can have a high impedance or even a low impedance and you must account for distributed loads in any of your calculations to determine whether it will be high or low when the bandpass array is resonant.
Now you probably will not find that statement in a book so you are in the hole with no way of getting out. You just blew it and you are stuck with the statements you made including the one that states that such an arrangement violates all the laws of nature as well as remembering what post you are responding to. Or is that deliberate because you found it embarrasing to think of responding to it, as you have not got the ability to speak in fractured English like Shakespeare which allows for a lot of wriggle room. I leave it at that and maybe while you are still alive somebody will be kind to you and explain that which you cannot comprehend or if you are still around in a couple of years you may be able to read it for yourself when it is in print. I didn't really expect that you could come up with anything of detail, just words
Bye

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:24942-404BEEE4-336@storefull-3254.bay.webtv.net...
> Art, KB9MZ wrote:
> "Now go back to your books since your memory is poor and check out what
> restrictions apply."
>
> My statement was: "A parallel resonant circuit is a high impedance (low
> admittance)."
>
> I reaffirm that statement. It assumes a high-quality circuit. It is
> general and nonspecific. It is not all-inclusive. It allows exceptions.
>
> In the ideal case, only perfect inductance and capacitance comprise the
> circuit. Z = XL/R. As R goes to zero, Z goes to infinity.
>
> The impedance of a parallel resonant circuit is:
> Q(XL).
>
> Best regards, Richard Harrison, KB5WZI
>

3657. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 06:32:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tm4o40h1hm7vhmdn8mqsc7bgaotfp74p4u@4ax.com>
Source record: 98829

On Mon, 08 Mar 2004 06:11:32 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

>fractured English like Shakespeare

Art,

Why do you hate Brits so?

73's
Richard Clark, KB7QHC

3658. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 11:30:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <404C5957.8CDB95A6@cwis.net>
Source record: 98830

Richard,
Art doesn't dislike 'Brits', in fact he identifies with them! Art does seem to have an adversion to people who have had a formal education, (you can 'see' that from his seeming allergy to anything out of books). I don't think that Art realizes that it would be impossible for an average person to learn the present knowledge base of electronics (or most any field) by experimentation, the average person wouldn't live long enough. Reading 'those' books is a necessity, not an option.
I also think, from just observing Arts attitudes from his postings, that Art has a 'problem' of a physical nature. His attitude changes periodically, and that period is fairly rhythmic. That's not a 'put down', I'm not making fun of Art. It is an easily verified observation, based on over 20 years of experience in a 'sort of' related job where I had to deal with similar people. I'm saying this with honest and well meaning intentions in the hopes that Art will do something about it, if possible. And that's it. I won't make any more comments about Art...
'Doc

PS - And just as a reminder, the "Doc" has no formal meaning, it's just a nick name.

3659. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 11:33:58 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <404C5A26.B4156360@cwis.net>
Source record: 98831

Yuri,
...Ah, I don't think it's the same thing Yuri.
'Doc

3660. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 12:41:36 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <qaqo40dkqqcgmake6ru4b9omfh5ii698a3@4ax.com>
Source record: 98832

On Sun, 7 Mar 2004 21:38:14 -0500, "New & Improved - N/F John"
<trompiano2000@yahoo.com> wrote:

>I live in Passaic County in New Jersey and I can see a hugh red and white
>antenna east of my location. I can't tell how far it is but it is far.
>From Clifton I can see Garfield and the antenna is in that direction.
>
>Anybody have any clues?
>
There is (was?) a very large tower structure in Alpine, right on the
river. It has at least two crossbars (made of girders). As I
understand it, it was one of the first FM broadcast towers. It was
later used for commercial services like pagers and commercial
repeaters.

Russ

3661. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 13:59:29 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <i9uo40huqh1inv0s2vukmnocsg3pbc8haq@4ax.com>
Source record: 98833

On Sun, 7 Mar 2004 21:38:14 -0500, "New & Improved - N/F John"
<trompiano2000@yahoo.com> wrote:

>I live in Passaic County in New Jersey and I can see a hugh red and white
>antenna east of my location. I can't tell how far it is but it is far.
>From Clifton I can see Garfield and the antenna is in that direction.
>
>Anybody have any clues?
>
The USGS topo map for the area may show the tower, although newer
towers or changes in ownership will not be there.

The FCC has a database of broadcast towers, IIRC, somewhere on their
website.

For some odd reason, pilots pay attention to large structures, and the
FAA or pilot info may include this.

You can plot the location more exactly by taking a bearing from one
known location, then a second bearing from a different one, and laying
that out on a good map.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

3662. Re: 20m Yagi height

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 14:19:43 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <c2hvdv$gv0$1@f04n12.cac.psu.edu>
Source record: 98834

The really big DXers have more than 1 beam on the tower and they feed them stacked or singly to favorer the distance wish to work.
I have a height limit here of 40' and my antenna works OK, 271 confirmed, but I wish it could be another 10' higher. I think it would work a bit better. Remember if SWR and SWR bandwidth is important to you, then height above ground is important. Check and see if the antenna your using specifies a minimum height, mine did.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

"Mikey" <ki6pr@arrl.net> wrote in message
news:4048a214$1_2@newsfeed.slurp.net...
> Depends on what you want to do on 20, Bill. "Normal" 20M ops can get away
> with 50-70 ft.; DXers usually demand 70 ft. minimum. Now, here's the
> kicker: it's not 70 ft. above the earth; it's 70 ft. above *ground
> reflection*. Where's your water table? How about local rooftops, and
other
> ground clutter? Aw, heck, just put it up 100 ft., and you won't have to
> worry about it!!
>
> 73,
> Mike KI6PR
> El Rancho R.F.,CA
>
> "Bill Grimwood" <bill@grimwood.net> wrote in message
> news:104haa7itigq9fb@corp.supernews.com...
> > How high does a 20 meter yaga need to be. will 50 feet be enough or do
I
> > need 70?
> >
> > Any recomendations on a foldover tower that I will not have to climb so
I
> > can service tha antenna and rotor?
> >
> >
> > 73
> >
> > W4WEG
> >
> >
>
>

3663. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 14:29:27 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <c2i006$1eue$1@f04n12.cac.psu.edu>
Source record: 98835

I made one of these out of RG58 for portable operation by striping off the jacket of the coax much longer than 1/4 wavelength and then working the shield down over the jacket below it. That way the feedline is inside the lower half of the dipole and is in a low field area. I put a current balun, (ferrite beads) at the point the coax came out of the shield. It was a bit of a struggle to do and you need more shield than you would think (start very long) but its easy to do in the end. I didn't water proof the braid over the jacket but one could cover it with tape or a plastic tube. Anyway after the braid is folded back over the jacket its then tuned just like any other dipole.
Also if your not going to run high power, the PAR makes an end feed half wave antenna that has a matching unit at the feed point.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

"Robert Spooner" <rls19@psu.edu> wrote in message
news:c2a45f$100u$1@f04n12.cac.psu.edu...
> Alex,
>
> Solder a quarter wave length of wire to the center conductor of the coax
> with a loop at the end of the wire to attach your line to raise it. A
> quarter of a wavelength from the wire end of the coax, coil enough of
> the coax to form an RF choke. (I think the ARRL Antenna Handbook has the
> information you need about how many turns and what diameter to make the
> coil.) Seal the end of the coax to keep out moisture. Then hoist the
> antenna up and you have a coaxial sleeve antenna.
>
> 73,
> Bob AD3K
>
> Alex wrote:
> > Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m? I
have
> > a large tree with a branch at 70' and i thought i'd pull the antenna up
with
> > a rope. Should i make the sleeve out of copper pipe? A 1/2 wave
vertical
> > would be a nice antenna for 40m and i thought a coaxial sleeve antenna
would
> > give me a great feed impedance. Any thoughts? The coax are 100' of
RG8.
> >

> >
>
> --
> Robert L. Spooner
> Registered Professional Engineer
> Associate Research Engineer
> Intelligent Control Systems Department
>
> Applied Research Laboratory Phone: (814) 863-4120
> The Pennsylvania State University FAX: (814) 863-7841
> P. O. Box 30
> State College, PA 16804-0030 rls19@psu.edu
>

3664. "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 14:39:34 UTC
From: Toni - EA3FYA <ea3fya@hotmail.com>
Message-ID: <e31p401mc6kj4u3vusmrcchc15tk2mriu0@4ax.com>
Source record: 98836

Hi,

For various reasons I am considering building a trapped dipole without traps. Well, not really. I would use pneumatical (compressed-air) switches in place of the traps.

What I don't know is if the switches rated for 16A 250V AC will stand the voltage at the edge of the antenna when open. Power would be 100W, but I wouldn't mind reducing to 50W or even 25W if that would make the switches work. Of course I would always operate the switches without RF on the antenna. I know normal voltages an antenna edges are much higher, but I also think that 250V working voltage probably means much higher isolation voltage. Just don't know how much more.

Thanks for answers / ideas.

Toni - EA3FYA

3665. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 14:57:11 UTC
From: richardharrison@webtv.net
Message-ID: <18826-404C89C7-184@storefull-3255.bay.webtv.net>
Source record: 98837

Art, KB9MZ wrote:
"It does not mean that a radiating antenna which is in the parallel configuration will have a high impedance."

Parallel configuration can mean several things. I will take it to mean the antenna shares some of the characteristics of a parallel resonant circuit.

Experience is that an end-fed 1/2-wave antenna has a high feedpoint resistance while an end-fed 1/4-wave antenna has a low feedpoint resistance. Since Art is hunting discrepancies, 1/2-wave and 1/4-wave are only approximate wavelengths. Resonant lengths in an antenna are shorter than free-space wavelengths due to reduced velocity along a wire and due to capacitive effects near the open-circuit at the end of the wire.

For a given power input to the antenna, the feedpoint voltage rises as the feedpoint impedance rises. See Ohm`s law.

In 1949 I worked in a broadcast plant where two stations shared the same tower. Both had frequencies, 950 KHz and 1320 KHz, that were higher than the 1/4-wavelength frequency of the tower which was designed for the previous occupant of the plant. Its frequency was around 740 KHz. The 1/2-wave resonant frequency of the tower might have been around 1480 KHz. The high length of the tower was still enough to make it a high impedance at its operating frequencies. 1320 KHz is emanating from that that tower as I type. It is hot as a pistol. Big arcs can be drawn at the base of the tower.

Art`s question was: "What is it about parallel circuits that makes them unsuitable?"

Like Johnny Carson, I may have given the answer before revealing the Question. A parallel resonant circuit shares the high impedance trait with an end-fed wire near 1/2-wave long.

A series resonant circuit shares the low impedance trait with and end-fed wire near 1/4-wave long.

A 1/4-wave series resonant circuit antenna with an open-circuit end produces a low impedance at its driven end through an impedance inversion caused by the reflected energy arriving back at the drive point. Radiation and other resistance prevent the reflected wave from causing a complete short-circuit at the drive point.

When I say a radiating antenna in the parallel configuration (Art`s words) will have a high impedance (the 1/2-wave repeats high impedance

caused by the open circuit), it will mean that its radiation resistance has grown with its length and its reactance will be zero if the antenna length has reached 2nd resonance, or the reactance is non-zero between resonant lengths.

High and low are relative terms. The questions should be, how high? or how low?

Best regards, Richard Harrison, KB5WZI

3666. Re: And they are what and what?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 15:33:47 UTC
From: Cecil.A.Moore@ieee.org
Message-ID: <9001ac09.0403080733.3b81f309@posting.google.com>
Source record: 98838

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
> The phrase "None-dissipative resistance" is utter nonsence.

It is my understanding that if the reactance of the characteristic impedance
of a transmission line is zero, the characteristic impedance is non-dissipative
and a pure resistance.

The IEEE's "resistance = real part of impedance" is indeed often non-dissipative.
If a voltage is in phase with a current, the V/I ratio is a resistance but not
necessarily dissipative. That's why the IEEE has two definitions of "resistance".
--
73, Cecil, W5DXP

3667. Re: LOG-PER: PCB-layout of LOG-PER by WA5VJB ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 15:51:45 UTC
From: samsvl@nlr.nl
Message-ID: <Xns94A6AB8964568samsvlnlrnl@137.17.128.14>
Source record: 98839

fractenna@aol.com (Fractenna) wrote in
news:20040306083113.12245.00001038@mb-m02.aol.com:

>>G'day everyone,
>>
>>(first post on this group)
>>
>>Awhile ago, I came across a log-periodic antenna (sold by Ramsey
>>Electronics) for the UHF-range (900-2600 MHz). It was a PCB, with the
>>shape of a log-per etched in copper. The design was by WA5VJB (Kent
>>Britain, judging from the 'hits' on google ?)
>>
>>Anyway, I'm planning on building such an antenna, but can't seem to
>>find the pcb-layout. Is this because it's 'proprietary' ? (at least
>>many other Ramsey products are public, like their Doppler RDF, which
>>is exactly as described in QST).
>>
>>So, does anyone have a PCB layout for these antenna's (there are 2
>>designs, for different freq.ranges)? Or, if they're on the net, does
>>anyone know where? I can't seem to find them...
>>
>>(or, has anyone built one/bought one, and is it worth the trouble of
>>making one? Gain of a log-per isn't very high, and a Dipole is quickly
>>made...)
>>
>>73,
>>
>>Peter Dingemans,
>>The Netherlands.
>>
>>
>>
>>
>>
>>
>>
>
> Hi Peter,
>
> The layout is a standard LPDA with a shorting stub. The stub is a via
> with a 2mm half loop: this prevents the back elements from being
> resonant at the higher freqs.
>
> His son Kyle sells them on e-bay at a very reasonable price. Not hard
> to find. Cheaper than you can make'em:-)

>
> 73,
> Chip N1IR
>

I bought one some time ago and I am happy with it !

Sam

3668. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 15:55:59 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <jl03c.52371$%d3.4486869@twister.southeast.rr.com>
Source record: 98840

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0403070302.6896deb8@posting.google.com...
> "aunwin" <aunwin@insightbb.com> wrote in message
news:<U2w2c.130951$4o.169497@attbi_s52>...
> > No Cecil it is not about transmission lines it is about a parallel
circuit
> > that radiates.
>
> Where did he mention transmission lines? I thought he was comparing a
> 1/2 wave dipole to a full wave dipole as far as circuit description...
>
> Most of this group are Americans so they all read a book for
> > a formula that might fit what we are talking about.
>
> All? I think not, Art...
>
> > One trots out a simple formula for the Q of a parallel circuit and yells
> > Eureeeeeka and they all follow like Lemmings hooking themselves on this
> > formula that they found in a book.
>
> They did? I guess I missed it...
>
> It is a really simple formula but did
> > anybody think for themselves?
>
> I can ONLY think for myself. I have failed to master the art of
> thinking for others...
>
> Ofcourse
> > they didn't, its a simple formula so all that is needed is to parrot it
out
> > and follow people who yell loudly that they know what they are talking
> > about.
>
> I have no idea what you are talking about...
>
> Roy and Shakespeare started it off years ago,
> > yes Wes and many others followed suit and Walter, well he said nothing.
>
> I thought Shakespeare was an old fart that lived in England. How did
> he join this illustrious grouping of Americans?
>
> > Now I ask you Cecil they trot out this formula for Q, it is in books
> > so they feel safe or it would not be in a book right?

>
> Right?
>
> > Now I ask you Cecil if you make an antenna array and you decide that you
> > require an input Z for this array what other values do you need for this
> > very simple formula bearing in mind that is a parallel circuit
containing a
> > capacitor of unknown value a inductance of unknown value and then come
up
> > with an air of knoweledge.
>
> Why are the values unknown? But even discarding that question, what is
> the big deal about designing a parallel circuit? I've done it many,
> many times. The formula for Q never even entered my skull. I really
> don't even need inductance or cap values. Why? Cuz I'm the wizard of
> burdine street.....:/ I work from sense of smell. :) But I'll give you
> a hint as it applies to a base fed 10m 1/2 wave vertical. The usual
> cap value is appx 50 pf. Didn't need no stinkin formula to come up
> with that...Dang...I must surely be cracked to work the way I do...
>
> Isn't it crazy ? On top of all that they use a
> > formula that is in a book
> > without determining where it comes from and what it is relevant to and
what
> > the simple values represent.
>
> I'm curiuous...Who was the American that offered this formula for
> parallel circuits? I must have missed it.
>
> Reg saw the problem a long while ago but I
> > think he looked to the sky, shook his head
> > and maybe snickered to himself.
>
> I think Reg does that nearly every day. If the wine and
> "entertainment" is good, he may even snicker out loud...
>
> I am sure he knows that when
> > you use a formula you can't pick and choose what you insert in a
formula. If
> > you are thinking impedance, resistance or whatever
> > and you have a huge physical circuit that contains yards and yards
> > of members that radiate as well as connecting to other passive circuits
one
> > would figure that these radiating members would have an impact on this
> > simple circuit that was in a book.
>
> What simple circuit? What book?
> And right from the beginning none of them
> > know how long these members are and what diameter and the configuration
is

> > even tho they keep spewing their technical garbage because after all
they
> > are experts and thus they determine who is right or wrong, whether they
be
> > manufacturers, antenna designers or learning amateurs.
>
> Why do we not know what diameter and the configuration is? Who's fault
> is this?
>
> > So tell me Cecil the parallel circuit is in a book and for years I have
> > tried to get people to think for themselves but they can't
> > because this simple formula is in a book so any thinking goes out the
> > window.
>
> Can we spell broke record? Art, again, I ONLY think for myself. You
> couldn't afford my price to think for you, or any others... I don't
> think for free. Besides, I don't need any extra leads or wiring coming
> out of my ears, mouth, or my other skull openings...
>
> I find it unbelievable that so many technical people
> > this side of the pond did not even think of looking beyond a book
> > that has this formula in it with only three components and not one
thought
> > about inserting figures into it and resolving things for themselves.
>
> I will find it amazing if anyone can understand what the heck you are
> harping about...Frankly, all this extended diatribe is confusing to
> most I think. Double so, if you are an ignorant redneck like me...
>
> Yup the
> > idea of figuring out all those resistances was too much for them so they
sat
> > back and trotted out phrases from a book that referred to a simple
bandpass
> > circuit possibly the size of a finger nail and then sat back and said it
was
> > good enough for a 160 meter antenna as we can ignore the wire or
radiating
> > members up there as being inconsequential.
>
> As previously noted. It's hard to understand what the heck you are
> talking about. I remember no such thing ocurring...Thread name?
>
> I ask you Cecil as one who has
> > also also bore the brunt of uneducated attacks what were they taught at
> > school over here that allowed them to bandy this formula around without
> > understanding what it means.
>
> Cecil was attacked? Did he survive? Did the formula survive?
>

> No, don't tell me it is beyond anybody to
> > provide a reasonable explanation
>
> Ok, I won't...
>
> > all they care about is crowding around Madame Guilliotine and cheering
as
> > somebody gets killed.
>
> http://www.stud.hh.se/org/hasp/02/gala/6.html
> I see them cheering and crowding around her, but I see no body...
>
> Gentlemen if I can call you that
>
> No, I'm a redneck. Most "gentlemen" shave their legs, and eat quiche
> energy bars...
>
> > go now back to your books and figure out the pertinent figures that is
> > needed for this simple formula
>
> Why? Will there be a test?
>
> and then think about all those nasty things
>
> Nasty? Whoa daddy, stand back....He's hurling a nasty...
>
> > you have said O and by the way remember you can add a shunt resistance
if
> > the impedance ratio gets a bit high but then you will have to go back to
a
> > book to find out where to put it,
>
> He will? What if he doesn't own the book?
>
> > I could tell you but I will refrain, a couple of years to figure it out
> > may be beneficial
>
> Typical....What, is this some big dark secret?
> I think we should rename this group, rec.radio.peyton.place :/
> MK

Once upon a time I went to see a demonstration of a device that was suppose to generate more power than it consumed. Not that I thought the device had a snow flakes chance in hell of working but I find thse sorts of event entertaining. Whenever questioned the guy making the presentation would either spout endless techno-babble, blame his failure on the media and power companies, take it as an attack on his religion, or just claim the person questioning him was being rude. For a few hundred dollars you may invest now in a device that will be worth hundreds of thousands in the future as soon as I iron out this one little problem, he says. Trouble is I am not sure if

this guy is an out an out fraud or someone who jsut doesnt understand you cant create enery from nothing. Sound like anyone we know?

3669. FS: VHF Motorola Spectrum mobile antenna in MA

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 16:24:28 UTC
From: cohenandy@yahoo.com
Message-ID: <5af9dbfa.0403080824.51acdbe8@posting.google.com>
Source record: 98841

VHF-FM Mobile Antenna- Motorala spectrum series , Model RAD 401 OARB, tunable for 136-174 band. Base loaded. In original packing tube with instruction manual and all hardware. $45.00 Can ship. Cohenandy@yahoo.com or 508-612-1213.

3670. radio information

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 16:39:04 UTC
From: WJDI <wjdi@hvc.rr.com>
Message-ID: <Ik13c.26532$Wo2.7720@twister.nyc.rr.com>
Source record: 98842

Hi, Did anyone out there hear of a Navy radio transmitter called
a " TED " or (T.E.D.) Please email me at : wjdi@hvc.rr.com
thanks Dave Schneider

3671. radio information

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 16:42:19 UTC
From: WJDI <wjdi@hvc.rr.com>
Message-ID: <Ln13c.26596$Wo2.12145@twister.nyc.rr.com>
Source record: 98843

Hi, Did anyone out there hear of a Navy radio transmitter called
a " TED " or (T.E.D.) Please email me at : wjdi@hvc.rr.com
thanks Dave Schneider

3672. Re: 2.4 GHz waveguide/horn antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 17:02:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4c8p40hv9rtqkqu04990dbnvddltuuvk79@4ax.com>
Source record: 98844

On Sun, 07 Mar 2004 23:44:00 +0100, Jeppe <no@spam.com> wrote:

>I am experimeting with 2.4 GHz pyramidal hornantennas like this one:
>
>http://seattlewireless.net/index.cgi/CardboardHorn
>
>But I ask myself: what is the optimal hight of the waveguide part?
>
>Of course the hight of the waveguide has to be more than lambda/4 in
>order for the lambda/4 antenna rod to fit in it. But how much bigger
>should it be?
>
>Jeppe

Hi Jeppe,

For the unbalanced probe, the throat cross section should show
1 by 0.5 wavelength dimension.
The mouth cross section should show
2 by 2 wavelengths.

The probe is situated on the face of the wider dimension, thus its tip
penetrates to the middle (where two diagonals would cross). The
illustrations are clear to this matter even though the dimensional
description is a bit rocky.

The standard gain of this antenna is 13dB (which is closely confirmed
by the author's measurements).

73's
Richard Clark, KB7QHC

3673. Re: radio information

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 17:05:23 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <404CA77B.BDD3E272@shaw.ca>
Source record: 98845

WJDI wrote:
>
> Hi, Did anyone out there hear of a Navy radio transmitter called
> a " TED " or (T.E.D.) Please email me at : wjdi@hvc.rr.com
> thanks Dave Schneider

Yes! The TED was an AM transmitter with a frequency range of
225 to 400 Mhz. We used them for intership communications. I
can't remember their URT designation although I think it may
have been AN/URT-7 ... it was almost fifty years ago in my
days with the Royal Canadian Navy. Tubes, of course, and the
PA's were a pair of 4CX150's

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3674. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 17:09:08 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <TM13c.205557$uV3.819814@attbi_s51>
Source record: 98846

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:18826-404C89C7-184@storefull-3255.bay.webtv.net...
> Art, KB9MZ wrote:
> "It does not mean that a radiating antenna which is in the parallel
> configuration will have a high impedance."
>
> Parallel configuration can mean several things. I will take it to mean
> the antenna shares some of the characteristics of a parallel resonant
> circuit.

So now 'WILL' can now be read as 'CAN' with respect to impedance 'EXCEPT'
in the case of circuitry where radiation is ignored

At last,..... at last.... even tho grudgingly.
So now you cannot use that as a reason for me to lie about my having an
antenna in parallel form
You CAN have a low resistance of 1 ohm or you CAN have one 1000 ohms so play
your silly games about me being a lier, don't hold your breath, have no
integrity and also a thief, all of which have been thrown at me because I
stated I have a rotatable beam for 160 meters that has a moveable 5 khz pass
band. Now you have the problem of explaining to people that you can have a
parallel arrangement for an antenna and we were wrong to focuss on the high
impedance aproach to accuse Art of lying and all the other accusations that
was thrown at him. Now ask the people involved why they refused to check for
themselves or do they have a backup technical augument. You made a point
about the loop dipole well the patent office accepted it as viable even tho
my writing was not clear because they had a samplke. The University of
Illinois accepted it for review (Yes I spoke also to the professor of Log
periodic fame as well, very interesting person)
The antenna director in charge or general Boss stated my claims were
confirmed.
So the antenna experts in this group don't understand how it functions so
immediately get in to gear to attack. Didn't Walter lead the last attack on
a guy, any attempt to squash inovation.
Now I can rest peacefully seeing that you are exposed for what you are. Now
when you see the next antenna in print you can chant what all followers
say....Well I knew that all the time, at least that is my experience when I
come up with something. The problem is that some people get degrees by
choice of multiple answers with a circular sweep of a pencil to make a dot,
first principles don't matter diddly as it is in a book written just like
that..

3675. Re: radio information

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 17:14:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n0ap40thami3mpvs1qvabfna6rui02fd33@4ax.com>
Source record: 98847

On Mon, 08 Mar 2004 17:05:23 GMT, Irv Finkleman <finkirv@shaw.ca>
wrote:

>WJDI wrote:
>>
>> Hi, Did anyone out there hear of a Navy radio transmitter called
>> a " TED " or (T.E.D.) Please email me at : wjdi@hvc.rr.com
>> thanks Dave Schneider
>
>Yes! The TED was an AM transmitter with a frequency range of
>225 to 400 Mhz. We used them for intership communications. I
>can't remember their URT designation although I think it may
>have been AN/URT-7 ... it was almost fifty years ago in my
>days with the Royal Canadian Navy. Tubes, of course, and the
>PA's were a pair of 4CX150's
>
>Irv VE6BP

Hi Irv,

Yup, and the corresponding receiver was called the RED. I taught them
both in the UHF course at Treasure Island (USN ET A School). They
were replaced by the AN/SRC-20-21 a channelized monstrosity with a
bajillion doublers and triplers in chains to build up the frequency
that was dialed in.

The TED/RED offered a hands-on appreciation of the physics of
wavelength and component size. Part of a filter consisted of a simple
post located in a hollow (stub in a resonant cavity with linkage
through openings).

73's
Richard Clark, KB7QHC

3676. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 17:20:30 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <yX13c.205629$uV3.820123@attbi_s51>
Source record: 98848

I have often stated that I suffer from Manic Depression and some other
defects and yes some have made fun of it.
But I do not work at a post office and do not carry a gun with me at all
times for when I get angry. And yes I do try to control
manic thoughts. I did not choose the illnes but I have chosen to live with
it the best I can. It is for that reason I decided to focus on
antennas as a way of removing myself from a bed. Yes it was very hard to
concentrate and learn especially when reading Field and Wave books but now I
can atleast venture outside and play with antennas. Now you have a fresh
bunch of information to ridicule,
have at it.

"'Doc" <w5lz@cwis.net> wrote in message news:404C5957.8CDB95A6@cwis.net...
>
>
> Richard,
> Art doesn't dislike 'Brits', in fact he identifies with
> them! Art does seem to have an adversion to people who
> have had a formal education, (you can 'see' that from his
> seeming allergy to anything out of books). I don't think
> that Art realizes that it would be impossible for an average
> person to learn the present knowledge base of electronics
> (or most any field) by experimentation, the average person
> wouldn't live long enough. Reading 'those' books is a
> necessity, not an option.
> I also think, from just observing Arts attitudes from his
> postings, that Art has a 'problem' of a physical nature. His
> attitude changes periodically, and that period is fairly
> rhythmic. That's not a 'put down', I'm not making fun of Art.
> It is an easily verified observation, based on over 20 years
> of experience in a 'sort of' related job where I had to deal
> with similar people. I'm saying this with honest and well
> meaning intentions in the hopes that Art will do something
> about it, if possible. And that's it. I won't make any more
> comments about Art...
> 'Doc
>
> PS - And just as a reminder, the "Doc" has no formal meaning,
> it's just a nick name.

3677. Re: Microwave BPL??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 17:20:42 UTC
From: aa6lk <aa6lk@cwnet.NOSPAM.com>
Message-ID: <404CAB6A.24@cwnet.NOSPAM.com>
Source record: 98849

Carl R. Stevenson wrote:
>...
> There is a company (called "Corridor" IIRC) that claims to have a BPL
> technique that operates at 5 GHz using the power line as a "G-line"
> transmission line.
> (basically a conical "launcher" at each end of a single wire ... used in the
> past as a low-loss UHF/microwave transmission line, but not hear of much in
> recent years)
>...

Not a lot of info, but try http://www.corridor.biz

later,
L

3678. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 18:42:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <coap40l2kod270g8piaesljm9q90hp6fk3@4ax.com>
Source record: 98850

On Mon, 08 Mar 2004 17:09:08 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

>> Art, KB9MZ wrote:
>> "It does not mean that a radiating antenna which is in the parallel
>> configuration will have a high impedance."
>>
>> Parallel configuration can mean several things. I will take it to mean
>> the antenna shares some of the characteristics of a parallel resonant
>> circuit.

Does not lead to:

>You CAN have a low resistance of 1 ohm or you CAN have one 1000 ohms

Parallel resonant circuits exhibit a high impedance, there are no
other interpretations.

>(Yes I spoke also to the professor of Log
>periodic fame as well, very interesting person)
"Broadband Logarithmically Periodic Antenna Structures," 1957 IRE
National Convention Record, Part 1.
Dwight E. Isbell, U.S. Patent No. 3,210,767 teaches:
"...directivity... was better than 9db over isotropic."
"Advantageously, however, the antennas of the invention need
no adjusting for their performance over a wide band width
compared to the parasitic types...."
"The longest dipole element should be approximately
0.47 wavelength long."

It is difficult to mis-interpret this patent as it is only 5 pages
long with two of those pages as illustrations, and the last page is
less than half full of text. We may note many design issues that Art
has taken umbrage of having been pointed out repeatedly re:
1.) half wave, full size dipoles (series resonant structures);
2.) wide bandwidth as an advantage;
3.) comparison to standards, in this case isotropic;
4.) no loads or components adding to complexity (no adjustments);
5.) Dwight Isbell learned his craft from books and instructors who
wrote those (-gasp!-) books (he was a graduate student
with R. H. DuHamel);
6.) Such information as we have about his design are found in
(-gasp!-) books;
7.) furthermore, Mr. Isbell has never exhibited Netourette's
Syndrome in these messages posted here.

73's
Richard Clark, KB7QHC

3679. Re: radio information

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 18:46:05 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <404CBF14.DF92BBF6@shaw.ca>
Source record: 98851

WJDI wrote:
>
> Hi, Did anyone out there hear of a Navy radio transmitter called
> a " TED " or (T.E.D.) Please email me at : wjdi@hvc.rr.com
> thanks Dave Schneider

A little research on the net paid off. The site below was from an early
Canadian destroyer HMCS Haida which has now become a museum. The site gives
a tour of the various radio offices and includes the TEDs and the URR-35
receivers which were paired with them.

http://www3.sympatico.ca/hrc/haida/radio/rrintro.htm
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3680. Anyone with Antenna Modeling software do me a favor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 18:57:59 UTC
From: "R. Scott" <washingtonhamTHREAD@yahoo.com>
Message-ID: <404CC237.490DF656@yahoo.com>
Source record: 98853

Modified G5RV

I just want to try this, heavens knows why, but I like to tinker, and
its what I ordered for some reason.

73 feet to a side (150 ft antenna wire 1 foot each end overlap for
dogbone) One side will be up about 35-40 feet or so (depending on how
high I get sling shot up) and other side at 10-15 feet (depending on how
far up the rope goes attached to a 10 foot pole with pulley)

Feed will initially be 50ft +- of 450 window ladder line to 75ft of
RG9913.

Thanks
--
Rick N7HJ
Everett, Washington
Remove THREAD to reply.

3681. Re: radio information

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 19:03:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7ogp40l707meb2mi33akntk9kft1b9lo2t@4ax.com>
Source record: 98852

On Mon, 08 Mar 2004 18:46:05 GMT, Irv Finkleman <finkirv@shaw.ca>
wrote:

>WJDI wrote:
>>
>> Hi, Did anyone out there hear of a Navy radio transmitter called
>> a " TED " or (T.E.D.) Please email me at : wjdi@hvc.rr.com
>> thanks Dave Schneider
>
>A little research on the net paid off. The site below was from an early
>Canadian destroyer HMCS Haida which has now become a museum. The site gives
>a tour of the various radio offices and includes the TEDs and the URR-35
>receivers which were paired with them.
>
>http://www3.sympatico.ca/hrc/haida/radio/rrintro.htm

Hi Irv,

A wonderful sight/site with great photography.

73's
Richard Clark, KB7QHC

3682. Re: Anyone with Antenna Modeling software do me a favor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 19:32:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404cca5d$1_1@corp.newsgroups.com>
Source record: 98854

R. Scott wrote:
> I just want to try this, heavens knows why, but I like to tinker, and
> its what I ordered for some reason.

Since you like to tinker, simply download the free demo version
of EZNEC from: http://www.eznec.com
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3683. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 19:35:39 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404ccb35$1_1@corp.newsgroups.com>
Source record: 98855

Richard Clark wrote:
> Parallel resonant circuits exhibit a high impedance, there are no
> other interpretations.

What if the coil 'Q' was 0.001?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3684. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 19:43:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <iuip4011tkf1ojboeqfcri2voc6qkgnh49@4ax.com>
Source record: 98856

On Mon, 08 Mar 2004 13:35:39 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>What if the coil 'Q' was 0.001?
Art would probably claim a patent on it for TPI efficiency.

3685. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 19:43:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <88hp40dqmb3m8n302gbbh3us46sv7ne5j0@4ax.com>
Source record: 98857

On Mon, 08 Mar 2004 17:09:08 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

The following excerpt is lifted directly from the Patent database for
patent 5,625,367 at:
http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=/netahtml/search-adv.h
tm&r=1&p=1&f=G&l=50&d=ptxt&S1=unwin-art.INZZ.&OS=in/unwin-art&RS=IN/unwin-art

>So the antenna experts in this group don't understand how it functions
We need only observe that public record, to observe an obvious error:
"To increase the directivity of such an antenna, a parasitic
reflector element, usually tuned to a frequency slightly higher
than the driver resonant frequency, can be placed parallel to the
driver element along the boom. For further increased directivity,
one or more director elements, usually tuned to frequencies
slightly lower than the driver resonant frequency, can be placed
at various distances along the boom on the other side of the
driver element and parallel to the driver element."
>the patent office accepted it as viable even tho
>my writing was not clear because they had a samplke.
Well, um, yes, perhaps.... Is this samplke patented too?

The source of your grief with books, trade magazines, periodicals,
seminars, professionally juried papers, reports, educators,
instructors, hams, engineers, citizen banders, Boy Scouts, and the
rest appears to be in the near universality of their teaching that
directors are tuned higher and reflectors are tuned lower than the
driven element. Such inversions are consistent in your writings tho'
with the backwards interpretations of Q, Series/Parallel resonance,
Efficiency (did I forget anything?).

73's
Richard Clark, KB7QHC

3686. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 20:25:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2ikub$5pb$1@newshost.mot.com>
Source record: 98859

Cute...

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:ajrk40h7la1obfqm7r0g9brmic5hgjiqn0@4ax.com...
> On Sat, 06 Mar 2004 18:19:20 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >Richard, how much do you pay for your blinders?
> Trying to sell yours?

3687. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 20:26:02 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403081226.37f7f15f@posting.google.com>
Source record: 98858

The idea of just pulling the braid back over the outer jacket of the coax to make a 1/4 wave section turns out to not be a great one. The reason is that you want 1/4 wave considering the propagation velocity of the coaxial arrangement consisting of the feedline outer conductor and the folded-back braid, with the (generally vinyl) coax outer jacket as dielectric. The result is a "line" with not very well controlled VF around 0.5 (so you should use only about 1/8 freespace wavelength of it, resulting in a very off-center-fed dipole). If you make it a quarter wave in freespace and it does have VF around 0.5, it will be close to an electrical half-wave and reflect back...a short, where you wanted an open! Also, the higher the impedance of that line is, the higher an impedance it will reflect to the lower end where the feedline comes out, and the close spacing and high-dielectric-constant jacket conspire to make a low impedance line, which is not good. So the idea of using a cage of wires forming a narrow cone should be a very good one. That's a cage version of an Isopole, I guess. Wire's pretty cheap; a cage of 8 conductors should do a good job (and be lighter than a sleeve made of copper pipe!). I'd try to make the bottom end of the cage at least a foot in diameter, with the coax nominally centered in it. If you do use a pipe, try to use an ID as large as practical and keep the coax more-or-less centered in it.

Cheers,
Tom

"Alex" <piratearchive@rogers.com> wrote in message
news:<FeW1c.144101$Qg7.1455@news04.bloor.is.net.cable.rogers.com>...
> Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m? I have
> a large tree with a branch at 70' and i thought i'd pull the antenna up with
> a rope. Should i make the sleeve out of copper pipe? A 1/2 wave vertical
> would be a nice antenna for 40m and i thought a coaxial sleeve antenna would
> give me a great feed impedance. Any thoughts? The coax are 100' of RG8.

3688. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 20:50:14 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <c2ima6$1dqo$1@f04n12.cac.psu.edu>
Source record: 98860

Tom,

I don't think that's correct. The velocity factor applies inside the coax, but not outside. What you have outside is a fat wire in free space.

But you still don't need to fold the shield back if you put a choke a quarter wavelength from the end of the coax to decouple a quarter wave of the _outside_ part of the shield. Then it becomes just as if you had folded back some of the shield. The currents in the center conductor and the inside of the shield are unaffected by the choke.

73,
Bob AD3K

Tom Bruhns wrote:
> The idea of just pulling the braid back over the outer jacket of the
> coax to make a 1/4 wave section turns out to not be a great one...
--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

3689. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:04:48 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2in91$7nc$1@newshost.mot.com>
Source record: 98862

I wonder what happened to my last post with questions to Richard Harrison.
I don't see it.

Comments inserted below.
--
Steve N, K,9;d, c. i My email has no u's.

"Walter Maxwell" <w2du@iag.net> wrote in message
news:o8ak405buij4v4cmvrvqsan7v17e3lo1ri@4ax.com...
> On Fri, 05 Mar 2004 21:50:55 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org>
> wrote:
>
> >w2du@iag.net wrote:
> >> Non-dissipative resistance is not well accepted or understood by many
otherwise
> >> well informed engineers, because it has had little or no (or even
incorrect)
> >> treatment in EE courses.
>
> On Sat. 06 Mar 2004 Cecil Moore wrote:
>
> >Yet the IEEE recognizes those two types of resistances with different
definitions.
> >Definition (A) talks about "dissipation or other permanent loss".
Definition (B)
> >simply says "The real part of impedance." Then a note: "Definitions (A)
and (B)
> >are *NOT* equivalent ..." (emphasis mine)
> >
> >The resistance in a resistor satisfies definition (A). The characteristic
> >impedance of a transmission line satisfies definition (B).
>
> What you said above is true, Cecil, but one more statement applies to
Definition
> (B). Although Definitions (A) and (B) are not equivalent, Definition (B)
does
> include the real part of the impedance of a dissipative resistor. The only
way
> to tell which is which is to determine which develops heat.
>
> I still maintain that many otherwise well qualified engineers not aware of
> Definition (B), and therefore reject the concept of a resistance that
doesn't
> dissipate power. And this applies to much more than the Zo of transmission

> lines.

I consider myself very well qualified and have no problem with both
of these conditions and believe I understand them fully. (my post of
questions to Richard Harrison would show, if I could see it--wonder if I
didn't push the send button)

I can only say that I have never heard the term "non-disipative
resistance" either professionally or in the hobby. It is not taught. If I
had to say why, it is because it is a self-conflicting term. In my
nomenclature, all "resistance" dissipates power as heat. In other words,
resistance is what resistors have. Resistance can produce the real part of
an impedance, but the real part can come from other things.
In other situations such as the T-Line, there is a "real part" to
the impedance. The Engineer understands that this is due to a combinatin of
physical things, not only a resistor, so the term in question refers to
something that the Engineer does not need to discuss. When there is only
a real part (no reactance), then both are indistinguishable to the source --
so from the source's point of view, they are the same. In the bigger
picture, however, there is a difference -- heat vs. power going elsewhere.
However, I do not believe it is a good term (loss-less resistance) to use in
this case.
I would call it an unnecessary complication to add a new term of
"loss-less resistance" when you understand all of this. If you were to have
a term "loss-less real part", then I'd say you have a more accurate
technical term. Although, the Engineer (by this, I mean both me and those I
have discussed circuit concepts in school and professionally) knows what is
underdiscussion and what the impedance is and where it comes from, so a new
term is unnecessary.
I don't know if this helps, but it really seems to be adding a term
or name when it is not necessary.

So while the term may "work" for some people, I believe it is a
slight mis-use of the term "resistance".
When you first start talking about "loss-less resistance" to a
schooled Engineer, he'she gets the wrong idea as to just what you are
talking about since it is a conflict in terms.
--
Steve N, K,9;d, c. i My email has no u's.

> And because there still remains many who believe the RF power amplifier
absorbs
> and dissipates reflected power, I chose to try again to dispel that notion
in my
> post in the 'max power theorem' thread.
>
> Walt Maxwell, W2DU
>

3690. How to get to r.r.a.a. archives

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:07:05 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2inda$7nq$1@newshost.mot.com>
Source record: 98861

Since it looks like a post of mine is either marked as being read or I
didn't send it, I'd like to get the one I responded to. How?

--
Steve N, K,9;d, c. i My email has no u's.

3691. Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:15:55 UTC
From: richardharrison@webtv.net
Message-ID: <24942-404CE28B-455@storefull-3254.bay.webtv.net>
Source record: 98863

Off topic, but you can`t power an antenna without power to the transmitter.

I`m looking for a d-c to d-c converter that takes 28 volts on the input and supplies 12 volts on the output. Up to 8 amperes may regularly be drawn from the supply. That`s about 100 watts.

I need it now. That`s why I`m imposing on this group. There is no more knowledgeable group to ask that I know of. I don`t have time to build anything, though I`ve built such inverters and converters.

A simple voltage divider or regulator is too lossy for high utilization. I need lossless resistance.

Maybe there is an applicable aircraft converter that is surplus somewhere, or maybe there is a stock automotive item as there are such 28-volt battery systems used in some big rigs. I`m in a hurry or I would quietly do all the hunting myself and not bother anybody.

I would like rugged, reliable, efficient, replaceable, and cheap.

Thank you in advance for directions to the source of my d-c step-down transformer.

Please excuse the misuse of this forum, but I believe it is my best resource for most things technical and unusual.

Best regards, Richard Harrison, KB5WZI

3692. Re: How to get to r.r.a.a. archives

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:25:12 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <c2iobolud1@mail.specsol.com>
Source record: 98864

Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote:
> Since it looks like a post of mine is either marked as being read or I
> didn't send it, I'd like to get the one I responded to. How?

> --
> Steve N, K,9;d, c. i My email has no u's.

http://groups.google.com/

--
Jim Pennino

Remove -spam-sux to reply.

3693. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:29:44 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2ionn$8fc$1@newshost.mot.com>
Source record: 98865

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:c2ikub$5pb$1@newshost.mot.com...
From: Richard Harrison (richardharrison@webtv.net)
Subject: Re: Lossless Resistance?

>ate: 2004-03-05 20:06:31 PST
>Steve Nosko wrote:
>"Power is calculated from "RMS" values of voltage and current."

>Steve is correct! I apologize.

>If you have a square wave of minimum peak to peak value of zero volts,
>its maximum peak to peak value must be 1.414 x the d-c value. Then,
>1.414 Vd-c x 1.414 Id-c = 2 Pd-c.

>2 Pd-c x 1/2 t = Pd-c for an average.

>Best regards, Richard Harrison, KB5WZI

Whew! Richard H.
For some reason, the above post does not show on my reader. I had to go
to Google to see what I was missing. After seeing your answer to my teaser
about voltage vs. power dB, I was really getting worried (about U) on this
one. You DO know. I think the thing here is that BOTH power and Current
are averaged by the chopper. I am, however, surprised that you did not have
a "gut feel" for that.

I just posted another short explanation of MY take on the term "loss-less
resistance".

I wonder why I am not seeing some posts..

There is another thread about the maximum power transfer theorm. This
thread was about the term "loss less resistance".
--
Steve N, K,9;d, c. i My email has no u's.

3694. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:35:46 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2ip31$8gc$1@newshost.mot.com>
Source record: 98866

I wonder what happened to my last post with questions to Richard Harrison.
I don't see it. Boy! I'm not doing well at all on this Usenet thing
today.....

Comments inserted below.

--
Steve N, K,9;d, c. i My email has no u's.

"Walter Maxwell" <w2du@iag.net> wrote in message
news:o8ak405buij4v4cmvrvqsan7v17e3lo1ri@4ax.com...
> On Fri, 05 Mar 2004 21:50:55 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org>
> wrote:
>
> >w2du@iag.net wrote:
> >> Non-dissipative resistance is not well accepted or understood by
> many otherwise well informed engineers...no ...treatment in EE courses.
>
> On Sat. 06 Mar 2004 Cecil Moore wrote:
>
> >Yet the IEEE recognizes those two types of resistances with different
definitions.
> >Definition (A) talks about "dissipation or other permanent loss".
> >Definition (B) simply says "The real part of impedance."
> >Then a note: "Definitions (A) and (B) are *NOT* equivalent ..." (emphasis
mine)
> >
> >The resistance in a resistor satisfies definition (A). The characteristic
> >impedance of a transmission line satisfies definition (B).
>
> What you said above is true, Cecil, but one more statement applies to
Definition B). Although Definitions (A) and (B) are not equivalent,
> Definition (B) does include the real part of the impedance of a
dissipative resistor.
> The only way to tell which is which is to determine which develops heat.
>
> I still maintain that many otherwise well qualified engineers not aware of
> Definition (B), and therefore reject the concept of a resistance that
> doesn't dissipate power. And this applies to much more than the Zo of
transmission
> lines.

I consider myself very well qualified and have no problem with both
of these conditions and believe I understand them fully. (my post of

questions to Richard Harrison would show, if I could see it--wonder if I didn't push the send button)

I can only say that I have never heard the term "non-disipative resistance" either professionally or in the hobby. It is not taught. If I had to say why, it is because it is a self-conflicting term. In my nomenclature, all "resistance" dissipates power as heat. In other words, resistance is what resistors have. Resistance can produce the real part of an impedance, but the real part can come from other things.
In other situations such as the T-Line, there is a "real part" to the impedance. The Engineer understands that this is due to a combinatin of physical things, not only a resistor, so the term in question refers to something that the Engineer does not need to discuss. When there is only a real part (no reactance), then both are indistinguishable to the source -- so from the source's point of view, they are the same. In the bigger picture, however, there is a difference -- heat vs. power going elsewhere. However, I do not believe it is a good term (loss-less resistance) to use in this case.
I would call it an unnecessary complication to add a new term of "loss-less resistance" when you understand all of this. If you were to have a term "loss-less real part", then I'd say you have a more accurate technical term. Although, the Engineer (by this, I mean both me and those I have discussed circuit concepts in school and professionally) knows what is underdiscussion and what the impedance is and where it comes from, so a new term is unnecessary.
I don't know if this helps, but it really seems to be adding a term or name when it is not necessary.

So while the term may "work" for some people, I believe it is a slight mis-use of the term "resistance".
When you first start talking about "loss-less resistance" to a schooled Engineer, he'she gets the wrong idea as to just what you are talking about since it is a conflict in terms.
--
Steve N, K,9;d, c. i My email has no u's.

> And because there still remains many who believe the RF power amplifier absorbs
> and dissipates reflected power, I chose to try again to dispel that notion in my
> post in the 'max power theorem' thread.
>
> Walt Maxwell, W2DU
>

3695. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:39:17 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <tupp409fngm8mimntulgeerlvsu2pivq0k@4ax.com>
Source record: 98867

Hi Richard,

I have just what you are looking for. I will send you an email

73
Gary K4FMX

On Mon, 8 Mar 2004 15:15:55 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Off topic, but you can`t power an antenna without power to the
>transmitter.
>
>I`m looking for a d-c to d-c converter that takes 28 volts on the input
>and supplies 12 volts on the output. Up to 8 amperes may regularly be
>drawn from the supply. That`s about 100 watts.
>
>I need it now. That`s why I`m imposing on this group. There is no more
>knowledgeable group to ask that I know of. I don`t have time to build
>anything, though I`ve built such inverters and converters.
>
>A simple voltage divider or regulator is too lossy for high utilization.
>I need lossless resistance.
>
>Maybe there is an applicable aircraft converter that is surplus
>somewhere, or maybe there is a stock automotive item as there are such
>28-volt battery systems used in some big rigs. I`m in a hurry or I would
>quietly do all the hunting myself and not bother anybody.
>
>I would like rugged, reliable, efficient, replaceable, and cheap.
>
>Thank you in advance for directions to the source of my d-c step-down
>transformer.
>
>Please excuse the misuse of this forum, but I believe it is my best
>resource for most things technical and unusual.
>
>Best regards, Richard Harrison, KB5WZI

3696. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:50:29 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2ipum$8vo$1@newshost.mot.com>
Source record: 98769

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:c2ip31$8gc$1@newshost.mot.com...
> I wonder what happened to my last post with questions to Richard Harrison.
> I don't see it. Boy! I'm not doing well at all on this Usenet thing
> today.....

BTW Richard H. No need to apologize. You made me go back and look closely to make sure I had it correct. You saw the error AND you really do understand -- that is the most important. I frequently have the fear that I will speed through a calculation and get a response wrong. Excel is my friend! Besides, I just finished pages and pages of these same calculations spurred by Bob Schraders (error prone) Watt meter article in QST.

I hope I always sounded as though I was a discussion of concepts rather than emotion. I was beginning to ask friends how to end the thread politely with someone who has it wrong and just doesn't get it. I won't get insulting (nudge, nudge, wink, wink), but I have this bone in my head which makes me WANT to say "I know I'm right, I tried to help you understand so you go prove it to yourself." without sounding insulting...
73,
--
Steve N, K,9;d, c. i My email has no u's.

3697. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:52:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8kqp405fhk696ovnhlme151bnrg68cftos@4ax.com>
Source record: 98868

On Mon, 8 Mar 2004 15:15:55 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>I`m looking for a d-c to d-c converter that takes 28 volts on the input
>and supplies 12 volts on the output. Up to 8 amperes may regularly be
>drawn from the supply. That`s about 100 watts.

Hi Richard,

Try Jameco at:
http://www.jameco.com/Jameco/Products/ProdDS/206041.pdf

73's
Richard Clark, KB7QHC

3698. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 21:59:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <orqp409m48vv7gmd4l4jg706a4gva1mkac@4ax.com>
Source record: 98770

On Mon, 8 Mar 2004 15:35:46 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>I wonder what happened to my last post with questions to Richard Harrison.
>I don't see it. Boy! I'm not doing well at all on this Usenet thing
>today.....
>
>Comments inserted below.

Hi Steve,

Newsgroup material moves across the internet in a bucket brigade style
of relay using NNTP as the control language. It passes from the
source back towards you (such that you can see you own posting) with
delay that is variable.

For me, that delay is on the order of 1 second to three or four
minutes. On bad days it can take as many hours. On Google, the delay
is more pronounced.

73's
Richard Clark, KB7QHC

3699. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 22:23:55 UTC
From: dplatt@radagast.org
Message-ID: <104psjrd75s9gba@corp.supernews.com>
Source record: 98771

In article <24942-404CE28B-455@storefull-3254.bay.webtv.net>,
Richard Harrison <richardharrison@webtv.net> wrote:

>Off topic, but you can`t power an antenna without power to the
>transmitter.
>
>I`m looking for a d-c to d-c converter that takes 28 volts on the input
>and supplies 12 volts on the output. Up to 8 amperes may regularly be
>drawn from the supply. That`s about 100 watts.
>
>I need it now. That`s why I`m imposing on this group. There is no more
>knowledgeable group to ask that I know of. I don`t have time to build
>anything, though I`ve built such inverters and converters.

Check with Vicor (www.vicr.com). They make a whole range of DC-to-DC
converter modules.

Example: their V24B12C200B converter module takes 18-36 volts in, 12
volts out (programmable from 10% to 11% of this, so you could get 13.2
out), efficiency 85%, 200 watts output. Current limit is 17 amps
minimum, 19.2 amps typical.

They do have a 100-watt module, but I suspect you'd be running it
right at the ragged edge of its specs.

There are other manufacturers playing in this market space... Datel is
one.

>A simple voltage divider or regulator is too lossy for high utilization.
>I need lossless resistance.

You won't get 100% efficiency out of anything like this. 80-90% seems
to be achievable with commercial products.

>I would like rugged, reliable, efficient, replaceable, and cheap.

I think you can get the first four if you look around.

The fifth is likely to be the hardest, if you want the first four.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3700. Re: Steppir Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 22:37:06 UTC
From: Ronald Walters <rwalters8@cfl.rr.com>
Message-ID: <mA63c.222316$jH.2391537@twister.tampabay.rr.com>
Source record: 98772

>Art - wrote
>Why not wait until sun spot cycle turns around. I think I would wait a few
>years and then see what is on the market, it is a lot of money to spend for
>bands that are presently deteriating.

That's exactly correct, band conditions are not going to improve over the next few years, openings will be sporadic, a good antenna is needed and that's not to say that I have not been satisfied with the TA-33. Would recommend that beam over all other Tri-banders on the market. On 80-40 and 30 meters I have a 40 meter Double extended center feed Zepp up 65 feet that performs very well.

The TA-33 has been up since 1976 without one problem and still exhibits the same SWR as when it was new. Have worked 295 countries, broken pile ups when needed, but the WARC add on kit will add cost plus not produce one Db of gain on 18 and 24.5 MHz. 18 MHz will be a very valuable band over the next few years as 15 12 and 10 go out. That's the reason I am looking at the Steppir. It gives all of the bands from 20 through 6 meters with solid rated performance (Both forward gain and front to back). The reason I asked earlier, is, statements like "is it to good to be true" and usually something "that is to good to be true" is exactly "to good to be true".

I also am looking at the LP's on the market, have the leading manufacturer right in my back yard her in central Florida and was ready to go the LP until I heard of the Steppir. Both have the plus and negatives. The Steppir has moving parts and motors on the top of a tower, service would be difficult. LP's are fix but suffer in performance across the spectrum.

I have the room, the money (Saved since 1976) and ready to make a change. I put the question out to this news group requesting inputs from other Ham's and I do appreciate your comment and want to thank you for taking the time to do so.

Ron - W4LDE

"aunwin" <aunwin@insightbb.com> wrote in message
news:i%Q2c.201100$uV3.815815@attbi_s51...
> Why not wait until sun spot cycle turns around. I think I would wait a few
> years and then see what is on the market, it is a lot of money to spend
for
> bands that are presently deteriating.
> Art
>
> "Ronald Walters" <rwalters8@cfl.rr.com> wrote in message
> news:8rP2c.189224$B81.2344405@twister.tampabay.rr.com...
> > I am seriously considering replacing a TA-33 with a 3-element Steppir.

> Have
> > heard allot of great things but no negatives. Anyone care to comment?
> Your
> > thoughts are appreciated.
> >
> > Ron W4LDE
> >
> >
>
>
>

3701. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 23:35:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2ivv7jpo1@hercules.btinternet.com>
Source record: 98773

In view of the nil replies to the following posting it's safe to say that's another old wives' tale which bites the dust.

The next ingrained tale on the list is the so-called SWR meter nonsense versus the TLI.

==========

> A TALE OF TWO OLD WIVES
>
> There are two cantankerous old wives:
>
> One old wife asserts it is obvious radiation occurs mainly from the middle
> portion of a dipole because that's where the current is strongest and the
> magnetic field is most concentrated.
>
> The other old wife asserts it is obvious radiation occurs mainly from the
> ends of a dipole because that's where the highest voltages occur and the
> electric field is most intense.
>
> Since the pair of arguments are logically identical in form they are of
> equal validity. But because it is impossible to reconcile the two women
....
> they cannot BOTH be right .... only one conclusion can be drawn ...
>
> ... both arguments are false!
>
> The old wives are telling tales. Citizens - drag 'em off to that old
English
> custom - the ducking stool.
>
>
>

3702. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 23:43:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404d055f$1_8@corp.newsgroups.com>
Source record: 98774

Steve Nosko wrote:
> In my nomenclature, all "resistance" dissipates power as heat.

Even SQRT(L/C)???? The Z0 of transmission line is a resistance,
e.g. 50 ohms, i.e. the "real part of impedance".

Seems the two "non-equivalent" IEEE definitions resolve the
contradictions in your posting.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3703. Re: How to get to r.r.a.a. archives

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 23:46:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404d0605$1_8@corp.newsgroups.com>
Source record: 98775

Steve Nosko wrote:
> Since it looks like a post of mine is either marked as being read or I
> didn't send it, I'd like to get the one I responded to. How?

If it actually made it into the netnews world, it will probably be on
Google. http://groups.google.com/
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3704. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 23:49:25 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <9E73c.2783$Cm3.1768@newsread3.news.pas.earthlink.net>
Source record: 98776

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c2ivv7jpo1@hercules.btinternet.com...
> In view of the nil replies to the following posting it's safe to say
that's
> another old wives' tale which bites the dust.
>
> The next ingrained tale on the list is the so-called SWR meter nonsense
> versus the TLI.
>
> ========================
>
> > A TALE OF TWO OLD WIVES
> >
> > There are two cantankerous old wives:
> >
> > One old wife asserts it is obvious radiation occurs mainly from the
middle
> > portion of a dipole because that's where the current is strongest and
the
> > magnetic field is most concentrated.
> >
> > The other old wife asserts it is obvious radiation occurs mainly from
the
> > ends of a dipole because that's where the highest voltages occur and the
> > electric field is most intense.
> >
> > Since the pair of arguments are logically identical in form they are of
> > equal validity. But because it is impossible to reconcile the two women
> ....
> > they cannot BOTH be right .... only one conclusion can be drawn ...
> >
> > ... both arguments are false!
> >
> > The old wives are telling tales. Citizens - drag 'em off to that old
> English
> > custom - the ducking stool.
> >
> >
> >
>
>

3705. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 23:49:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404d06c1$1_8@corp.newsgroups.com>
Source record: 98777

Steve Nosko wrote:
> For some reason, the above post does not show on my reader. I had to go
> to Google to see what I was missing.

You must be using a computer with Motorola chips. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3706. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 23:51:40 UTC
From: "Peter O. Brackett" <no_such_address@ix.netcom.com>
Message-ID: <gG73c.2788$Cm3.1891@newsread3.news.pas.earthlink.net>
Source record: 98778

Reg:

Compared to current, voltage is just so ephemeral....

Voltage is a line integral, it depends upon the path over which one
evaluates the integral.

While current is something more substantial... one does not have to
plan the path of integration to know the current.

What?

--
Peter K1PO

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c2ivv7jpo1@hercules.btinternet.com...
> In view of the nil replies to the following posting it's safe to say
that's
> another old wives' tale which bites the dust.
>
> The next ingrained tale on the list is the so-called SWR meter nonsense
> versus the TLI.
>
> ========================
>
> > A TALE OF TWO OLD WIVES
> >
> > There are two cantankerous old wives:
> >
> > One old wife asserts it is obvious radiation occurs mainly from the
middle
> > portion of a dipole because that's where the current is strongest and
the
> > magnetic field is most concentrated.
> >
> > The other old wife asserts it is obvious radiation occurs mainly from
the
> > ends of a dipole because that's where the highest voltages occur and the
> > electric field is most intense.
> >
> > Since the pair of arguments are logically identical in form they are of
> > equal validity. But because it is impossible to reconcile the two women
> ....
> > they cannot BOTH be right .... only one conclusion can be drawn ...
> >

> > ... both arguments are false!
> >
> > The old wives are telling tales. Citizens - drag 'em off to that old
> English
> > custom - the ducking stool.
> >
> >
> >
>
>

3707. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 23:55:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404d0810_8@corp.newsgroups.com>
Source record: 98780

Steve Nosko wrote:
> I won't get
> insulting (nudge, nudge, wink, wink), but I have this bone in my head which
> makes me WANT to say "I know I'm right, I tried to help you understand so
> you go prove it to yourself." without sounding insulting...

Well, Steve, maybe you can tell us exactly what happens at the Z0-match
point in the following system. What changes the direction and momentum
of the reflected power wave from the load?

100W XMTR---50 ohm coax---x---1/2 WL 450 ohm ladder-line---50 ohm load
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3708. Re: Anyone with Antenna Modeling software do me a favor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-08 23:57:52 UTC
From: noexqs <PE2WDO@noexqs.demon.nl>
Message-ID: <104q1stidh7nf6f@corp.supernews.com>
Source record: 98779

Perhaps you could model it in MMANA?

http://www.qsl.net/mmhamsoft/

"R. Scott" <washingtonhamTHREAD@yahoo.com> schreef in bericht
news:404CC237.490DF656@yahoo.com...
> Modified G5RV
>
> I just want to try this, heavens knows why, but I like to tinker, and
> its what I ordered for some reason.
>
> 73 feet to a side (150 ft antenna wire 1 foot each end overlap for
> dogbone) One side will be up about 35-40 feet or so (depending on how
> high I get sling shot up) and other side at 10-15 feet (depending on how
> far up the rope goes attached to a 10 foot pole with pulley)
>
> Feed will initially be 50ft +- of 450 window ladder line to 75ft of
> RG9913.
>
>
> Thanks
> --
> Rick N7HJ
> Everett, Washington
> Remove THREAD to reply.

3709. WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 00:00:15 UTC
From: Dennis <Howdy.Doody@howdydoody.net>
Message-ID: <c2j1efret1@xuxa.iecc.com>
Source record: 98781
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

HI,

Does anybody have a circuit that will
decode the WWVB signal,and output to a clock
led circuit?

TIA,

Dennis

3710. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 00:12:56 UTC
From: Allan Butler <ka0ies@hotmail.com>
Message-ID: <c_73c.505879$I06.5406575@attbi_s01>
Source record: 98782

Richard,

try looking at http://www.astroncorp.com

They have two different converters like you are looking for.

3711. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 00:16:09 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <404d0efb_1@news1.prserv.net>
Source record: 98784

Sounds like Major Armstrong's tower in Alpine, N. J.

--
Crazy George
Remove N O and S P A M imbedded in return address
"New & Improved - N/F John" <trompiano2000@yahoo.com> wrote in message
news:404bdb63$0$3101$61fed72c@news.rcn.com...
> I live in Passaic County in New Jersey and I can see a hugh red and white
> antenna east of my location. I can't tell how far it is but it is far.
> From Clifton I can see Garfield and the antenna is in that direction.
>
> Anybody have any clues?
>
>

3712. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 00:22:53 UTC
From: New & Improved - N/F John <trompiano2000@yahoo.com>
Message-ID: <404d0d28$0$3105$61fed72c@news.rcn.com>
Source record: 98783

I did find the answer. http://www.fybush.com/site-021219.html It is the Armstrong Tower in Apline, New Jersey. I found that it is about 24 miles away. I never really looked outside my attic with binoculars before and tried to identify things. This is interesting because there are water towers visible behind it. These water towers must be in New York because the Hudson River is next to Alpine.

"New & Improved - N/F John" <trompiano2000@yahoo.com> wrote in message news:404bdb63$0$3101$61fed72c@news.rcn.com...
> I live in Passaic County in New Jersey and I can see a hugh red and white
> antenna east of my location. I can't tell how far it is but it is far.
> From Clifton I can see Garfield and the antenna is in that direction.
>
> Anybody have any clues?
>
>

3713. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 00:43:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404d134d$1_8@corp.newsgroups.com>
Source record: 98785

Richard Clark wrote:
> This is a product of your shortfall of experience and instruction. I
> can construct a bandpass circuit using only resistors and capacitors.
> There is NOTHING resonant there.

Are you not aware that resistors and capacitors possess inductance?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3714. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 01:02:34 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <KI83c.1117$qu1.269421703@newssvr11.news.prodigy.com>
Source record: 98786

"Dave Platt" <dplatt@radagast.org> wrote in message
news:104psjrd75s9gba@corp.supernews.com...
> In article <24942-404CE28B-455@storefull-3254.bay.webtv.net>,
> Richard Harrison <richardharrison@webtv.net> wrote:
>
> >Off topic, but you can`t power an antenna without power to the
> >transmitter.
> >
> >I`m looking for a d-c to d-c converter that takes 28 volts on the input
> >and supplies 12 volts on the output. Up to 8 amperes may regularly be
> >drawn from the supply. That`s about 100 watts.
> >
> >I need it now. That`s why I`m imposing on this group. There is no more
> >knowledgeable group to ask that I know of. I don`t have time to build
> >anything, though I`ve built such inverters and converters.
>
> Check with Vicor (www.vicr.com). They make a whole range of DC-to-DC
> converter modules.
>
> Example: their V24B12C200B converter module takes 18-36 volts in, 12
> volts out (programmable from 10% to 11% of this, so you could get 13.2
> out), efficiency 85%, 200 watts output. Current limit is 17 amps
> minimum, 19.2 amps typical.

I suspect, since 'up to 8 amperes may be drawn', that
he'll have a hard time meeting the '17 amps minimum'
spec...

--
Steve
KI5YG
.

3715. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 01:13:56 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <loOdnc8r8uPOh9DdRVn-tA@comcast.com>
Source record: 98787

Most of the NY TV stations were transmitting from Alpine on a temporary
bases until they got them up on the Empire State Building. They may still be
there as backups. Note that the cable systems did not even hiccup when the
WTC went down. Must use a direct studio microwave link.

Tam/WB2TT
"New & Improved - N/F John" <trompiano2000@yahoo.com> wrote in message
news:404d0d28$0$3105$61fed72c@news.rcn.com...
> I did find the answer. http://www.fybush.com/site-021219.html It is the
> Armstrong Tower in Apline, New Jersey. I found that it is about 24 miles
> away. I never really looked outside my attic with binoculars before and
> tried to identify things. This is interesting because there are water
> towers visible behind it. These water towers must be in New York because
> the Hudson River is next to Alpine.
>
>
> "New & Improved - N/F John" <trompiano2000@yahoo.com> wrote in message
> news:404bdb63$0$3101$61fed72c@news.rcn.com...
> > I live in Passaic County in New Jersey and I can see a hugh red and
white
> > antenna east of my location. I can't tell how far it is but it is far.
> > From Clifton I can see Garfield and the antenna is in that direction.
> >
> > Anybody have any clues?
> >
> >
>
>

3716. Re: How to get to r.r.a.a. archives

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 01:16:46 UTC
From: wa0goz@arrl.net
Message-ID: <404D1AFE.1FD8@arrl.net>
Source record: 98789

Steve Nosko wrote:
>
> Since it looks like a post of mine is either marked as being read or I
> didn't send it, I'd like to get the one I responded to. How?
>
> --
> Steve N, K,9;d, c. i My email has no u's.

ftp to
sunsite.unc.edu/pub/academic/agriculture/agronomy/electronics+computers/ANTENNAS

This should be all one line in case it wraps.

Henry WA0GOZ

3717. Re: How to get to r.r.a.a. archives

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 01:20:15 UTC
From: wa0goz@arrl.net
Message-ID: <404D1BCF.2000@arrl.net>
Source record: 98790

Steve Nosko wrote:
>
> Since it looks like a post of mine is either marked as being read or I
> didn't send it, I'd like to get the one I responded to. How?
>
> --
> Steve N, K,9;d, c. i My email has no u's.

In case you have trouble

ftp://sunsite.unc.edu/pub/academic/agriculture/agronomy/electronics+computers/ANTENNAS

Henry WA0GOZ

3718. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 01:21:52 UTC
From: dplatt@radagast.org
Message-ID: <104q71gppsmp63a@corp.supernews.com>
Source record: 98788

In article <KI83c.1117$qu1.269421703@newssvr11.news.prodigy.com>,
Stephen Cowell <scowell@sbcglobal.net> wrote:

>>
>> Example: their V24B12C200B converter module takes 18-36 volts in, 12
>> volts out (programmable from 10% to 11% of this, so you could get 13.2
>> out), efficiency 85%, 200 watts output. Current limit is 17 amps
>> minimum, 19.2 amps typical.
>
>I suspect, since 'up to 8 amperes may be drawn', that
>he'll have a hard time meeting the '17 amps minimum'
>spec...

Sorry, I was unclear. What the phraseology means is "The converter's
maximum current output is limited to a value which might, in some
cases, be as low as 17 amperes, but is typically around 19.2 amperes."

I didn't mean to imply that you _must_ draw 17 amperes from the
converter in order for it to work. There doesn't appear to be a
significant lower limit - load reguulation is given as 0.2% typical
"no load to full load, nominal input" as long as you haven't trimmed
the converter to a lower output voltage.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3719. FM antenna recommendation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 03:18:22 UTC
From: Mark Atanovich <m.atanovich@cox.net>
Message-ID: <1la3c.93$Nj.58@fed1read01>
Source record: 98791

Greetings,
I live in Phoenix, AZ greater metro area and am looking for a directional antenna to pick up FM stations only 20 or so miles away but obstructed by the local terrain (Camelback & Mummy Mts. if you're familiar with the area). I currently have a Channel Master 4248 on a 20 ft mast for HDTV and it actually does a fairly good job of picking up the local radio stations except for the PBS affililate. I'm looking for a low cost (<$25) directional antenna that I could simply mast mount along the the CM.

On a related note, if I were to stack dissimilar antennas, what's the best way phase align them? I'm assuming I would line up the driven elements.

Thx.

3720. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 03:30:51 UTC
From: tommyknocker <tomynokr@uucp.hell>
Message-ID: <c2jdpb$f6c$1@xuxa.iecc.com>
Source record: 98793
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Dennis wrote:

> HI,
>
> Does anybody have a circuit that will
> decode the WWVB signal,and output to a clock
> led circuit?

Go to Google and search for "atomic clock". In the first 20 or 30 listings you should find hobbyist sites that have diagrams and maybe even kits.

3721. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 03:30:55 UTC
From: - - ex - - <exray@coqui.gov>
Message-ID: <c2jdpf$f8d$1@xuxa.iecc.com>
Source record: 98792
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Dennis wrote:
> HI,
>
> Does anybody have a circuit that will
> decode the WWVB signal,and output to a clock
> led circuit?
>
> TIA,
>
> Dennis
>
>

You might want to search at http://www.google.com using the terms wwvb decoder clock. There's plenty to select from and a number of kits available.

-BM

3722. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 03:30:56 UTC
From: Tony Hwang <dragon40@shaw.ca>
Message-ID: <c2jdpg$f9h$1@xuxa.iecc.com>
Source record: 98794
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Dennis wrote:

> HI,
>
> Does anybody have a circuit that will
> decode the WWVB signal,and output to a clock
> led circuit?
>
> TIA,
>
> Dennis
>
>
Hi,
Unless you want to have fun building a clock, there are many such clocks
or watches out there. I wear a watch. Very accurate in time keeping.
Tony, VE6CGX

3723. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 04:05:27 UTC
From: richardharrison@webtv.net
Message-ID: <24942-404D4287-514@storefull-3254.bay.webtv.net>
Source record: 98795

Cecil, W5DXP wrote:
"Are you not aware that resistors and capacitors possess inductance?"

Richard Clark well knows that. I`d wager he was thinking of curtailing low-frequency transmission with a small coupling capacitance. He could then limit high-frequency response with a large capacitance shunting the transmission path. Or, he could have been thinking of a gyrator.

With both high-frequwncy and low-frequencies limited, a band-pass filter results. Op-amp gain and feedback produce a rich variety of response tailoring possibilities.

I bought and installed a Thordarson resonant equalizer in one of the 2A3 amplifiers I used to build long ago. It`s amazing the difference passband slopes can make in the sound.

Best regards, Richard Harrison, KB5WZI

3724. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 06:04:39 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403082204.123a9f3a@posting.google.com>
Source record: 98796

Robert Spooner <rls19@psu.edu> wrote in message news:<c2ima6$1dqo$1@f04n12.cac.psu.edu>...
> Tom,
>
> I don't think that's correct. The velocity factor applies inside the
> coax, but not outside. What you have outside is a fat wire in free space.

There is a velocity factor for the coaxial line formed by the outside
of the outer conductor of the feedline coax and the inside of the
sleeve conductor, and whatever dielectric is in there. That coaxial
line is shorted at the top, and you want it to reflect an open at the
bottom. Therefore you need to make it 1/4 wave long, accounting for
the velocity factor of that line. If you do a good enough job on
that, you won't need additional decoupling. If you have good enough
additional decoupling, you won't need the sleeve: just terminate the
feedline outer 1/4 wave above the decoupling, and extend the inner
another 1/4 wave above that. If you only do a so-so job on either
one, you probably ought to have the other, too: belt and suspenders.

Cheers,
Tom

3725. Re: 20m Yagi height

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 06:07:39 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <404c0811_2@newsfeed.slurp.net>
Source record: 98797

Back when I was a Novice, I wandered the neighborhood, looking at some of the local hams' towers. I asked one of them, "I notice most of the guys have 50' towers. Is that some sort of magic number?". His reply was, "Actually, that's about as much tower as most of us can afford to buy!".

The bottom line is that you do what you can...it'll work, to some degree or another.
73,
Mike KI6PR
El Rancho R.F., CA

"John Passaneau wrote
> The really big DXers have more than 1 beam on the tower and they feed them
> stacked or singly to favorer the distance wish to work.
> I have a height limit here of 40' and my antenna works OK, 271 confirmed,
> but I wish it could be another 10' higher. I think it would work a bit
> better. Remember if SWR and SWR bandwidth is important to you, then height
> above ground is important. Check and see if the antenna your using
specifies
> a minimum height, mine did.
>
>

3726. Re: Steppir Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 06:10:51 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <404c08d1_4@newsfeed.slurp.net>
Source record: 98798

Several of the locals are using 3-el and 4-el SteppIR beams. They are exactly as advertised. A good deal for the average (and above-average) ham...

73,
Mike KI6PR
El Rancho R.F., CA

"Ronald Walters" wrote

> I am seriously considering replacing a TA-33 with a 3-element Steppir. Have
> heard allot of great things but no negatives. Anyone care to comment? Your
> thoughts are appreciated.
>
> Ron W4LDE
>
>

3727. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 07:35:47 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <Tpe3c.242$vz.20@newsfe3-win.server.ntli.net>
Source record: 98799

> Sorry, I was unclear. What the phraseology means is "The converter's
> maximum current output is limited to a value which might, in some
> cases, be as low as 17 amperes, but is typically around 19.2 amperes."
>
> I didn't mean to imply that you _must_ draw 17 amperes from the
> converter in order for it to work. There doesn't appear to be a
> significant lower limit - load reguulation is given as 0.2% typical
> "no load to full load, nominal input" as long as you haven't trimmed
> the converter to a lower output voltage.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO

Dave,

Even though you may have been unclear, REAL radio amateurs knew
exactly what you meant - ignore wise-ass comments from those trying to be
a bit more clever than others - it illustrates various weaknesses .....

Nick

3728. Re: 2.4 GHz waveguide/horn antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 09:40:10 UTC
From: Jeppe <no@spam.com>
Message-ID: <ej2r40l41g6qg0sumctp3orepbr2ruvklb@4ax.com>
Source record: 98800

On Mon, 08 Mar 2004 17:02:07 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>For the unbalanced probe, the throat cross section should show
> 1 by 0.5 wavelength dimension.
>The mouth cross section should show
> 2 by 2 wavelengths.
>
>The probe is situated on the face of the wider dimension, thus its tip
>penetrates to the middle (where two diagonals would cross). The
>illustrations are clear to this matter even though the dimensional
>description is a bit rocky.

tnx f ur reply kb7ghc

0.5 wavelenght seems like a intuitively reasonable choice for the
smaller dimension of cross section of the throat / waveguide part. If
the tip of the probe (=1/4 wavelenght antenne rod?) is very close to
the opposite wall it is hard to imagine that it would not affect the
function and the SWR (which, unfortunately, I lack equipment to
measure)

But are you sure that 1 wavelenght is the optimum value for the other
dimension of the cross section? That is more than in the examples I
have seen on the net.

Is there some reason for choosing a 2 : 1 ratio of the two dimensions?

I may add that in the first horn I made, the dimensions were 0.36 x
0.72 wave. It worked, but probably not quite optimallly (I lack real
measuring equipment.) I then tried to put the antenne rod
perpendicular to the SMALLER side instead, but that did not work at
all (very weak signal).

73

Jeppe (former OZ3FV, hav'n't renewed my licence for about 30 years :-(

3729. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 13:38:45 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <ENj3c.1162$sE5.318028976@newssvr11.news.prodigy.com>
Source record: 98801

"nick smith" <NickS@ntlworld.com> wrote in message
news:Tpe3c.242$vz.20@newsfe3-win.server.ntli.net...
> > Sorry, I was unclear. What the phraseology means is "The converter's
> > maximum current output is limited to a value which might, in some
> > cases, be as low as 17 amperes, but is typically around 19.2 amperes."
> >
> > I didn't mean to imply that you _must_ draw 17 amperes from the
> > converter in order for it to work. There doesn't appear to be a
> > significant lower limit - load reguulation is given as 0.2% typical
> > "no load to full load, nominal input" as long as you haven't trimmed
> > the converter to a lower output voltage.
> >
> > --
> > Dave Platt <dplatt@radagast.org> AE6EO
>
>
> Dave,
>
> Even though you may have been unclear, REAL radio amateurs knew
> exactly what you meant - ignore wise-ass comments from those trying to be
> a bit more clever than others - it illustrates various weaknesses .....

Hey Nick... chupe' mis huevos. It was *not* clear, and Dave
knew it, and copped to it.

--
Steve
KI5YG
.

3730. Re: LOG-PER: PCB-layout of LOG-PER by WA5VJB ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 13:56:27 UTC
From: peter_dingemans@hotmail.com
Message-ID: <195e9be4.0403090556.45457687@posting.google.com>
Source record: 98802

Thanks for the replies everyone,

I've contacted Kent Britain (WA5VJB) and he sent the PCB-layout, so I can etch my own. I realise that the price for which they are sold is low, in fact, uneconomical to 'roll your own'. However, it's an 'honour' thing ;) Seriously, I like making the stuff myself, even when it would be more rational to buy... (let's just say that the answer to the 'make or buy' decision is 'biased' towards make.)

Glad to hear from other people that they're satisfied with the antenna.

Grtz,

Peter Dingemans.

3731. Re: FM antenna recommendation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 14:00:39 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c2kim8$1uei1f$1@ID-225206.news.uni-berlin.de>
Source record: 98803

Radio Shack used to have some cheap directional antennas that would pick up
FM band.
In Phoenix, the transmitter site on the south side on the hill is full of
IM, a dirty site, so you may have some selectivity problems if you have to
shoot across or near it.

"Mark Atanovich" <m.atanovich@cox.net> wrote in message
news:1Ia3c.93$Nj.58@fed1read01...
> Greetings,
> I live in Phoenix, AZ greater metro area and am looking for a directional
> antenna to pick up FM stations only 20 or so miles away but obstructed by
> the local terrain (Camelback & Mummy Mts. if you're familiar with the
area).
> I currently have a Channel Master 4248 on a 20 ft mast for HDTV and it
> actually does a fairly good job of picking up the local radio stations
> except for the PBS affililate. I'm looking for a low cost (<$25)
directional
> antenna that I could simply mast mount along the the CM.
>
> On a related note, if I were to stack dissimilar antennas, what's the best
> way phase align them? I'm assuming I would line up the driven elements.
>
> Thx.
>
>

3732. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 14:12:53 UTC
From: "Wolfgang K. Meister" <no.mail@please.com>
Message-ID: <v4kr40d7mkdsce8cohih5c9g7pnfrukfao@4ax.com>
Source record: 98804

On Fri, 05 Mar 2004 07:45:41 GMT, "Alex" <piratearchive@rogers.com>
wrote:

>Has anyone tried building a 1/2 wave coaxial sleeve antenna for 40m?

go to http://www.qsl.net/oe1mww/station.html

I have made several of those. You need to match this antannna.
You will find everything what you need at the bottom of the page.

73s
Wolfgang
OE1MWW

3733. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 14:26:31 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <PYednam_zvOLSdDdRVn-gQ@comcast.com>
Source record: 98805

Richard,

Assuming there is a common ground, and input and output are the same polarity, what you want is called a buck converter. To roll your own, National and TI make chips. To buy a whole unit you need to go to a non hobby distributor's web site like Newark, Allied, Avnet, or Arrow. Some manufacturers of these things are Astec, Condor, Cosell, Elpac, and Lambda(expensive).

Tam/WB2TT
"Richard Harrison" <richardharrison@webtv.net> wrote in message news:24942-404CE28B-455@storefull-3254.bay.webtv.net...
> Off topic, but you can`t power an antenna without power to the
> transmitter.
>
> I`m looking for a d-c to d-c converter that takes 28 volts on the input
> and supplies 12 volts on the output. Up to 8 amperes may regularly be
> drawn from the supply. That`s about 100 watts.
>
> I need it now. That`s why I`m imposing on this group. There is no more
> knowledgeable group to ask that I know of. I don`t have time to build
> anything, though I`ve built such inverters and converters.
>
> A simple voltage divider or regulator is too lossy for high utilization.
> I need lossless resistance.
>
> Maybe there is an applicable aircraft converter that is surplus
> somewhere, or maybe there is a stock automotive item as there are such
> 28-volt battery systems used in some big rigs. I`m in a hurry or I would
> quietly do all the hunting myself and not bother anybody.
>
> I would like rugged, reliable, efficient, replaceable, and cheap.
>
> Thank you in advance for directions to the source of my d-c step-down
> transformer.
>
> Please excuse the misuse of this forum, but I believe it is my best
> resource for most things technical and unusual.
>
> Best regards, Richard Harrison, KB5WZI
>

3734. Re: 40m 1/2 wave coaxial sleeve antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 14:32:11 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <g9lr40pqbuc741meejltb6d5mq5f683f8b@4ax.com>
Source record: 98806

On 8 Mar 2004 22:04:39 -0800, k7itm@aol.com (Tom Bruhns) wrote:

>Robert Spooner <rls19@psu.edu> wrote in message
news:<c2ima6$1dqo$1@f04n12.cac.psu.edu>...
>> Tom,
>>
>> I don't think that's correct. The velocity factor applies inside the
>> coax, but not outside. What you have outside is a fat wire in free space.
>
>There is a velocity factor for the coaxial line formed by the outside
>of the outer conductor of the feedline coax and the inside of the
>sleeve conductor, and whatever dielectric is in there. That coaxial
>line is shorted at the top, and you want it to reflect an open at the
>bottom. Therefore you need to make it 1/4 wave long, accounting for
>the velocity factor of that line. If you do a good enough job on
>that, you won't need additional decoupling. If you have good enough
>additional decoupling, you won't need the sleeve: just terminate the
>feedline outer 1/4 wave above the decoupling, and extend the inner
>another 1/4 wave above that. If you only do a so-so job on either
>one, you probably ought to have the other, too: belt and suspenders.
>
>Cheers,
>Tom

Tom is right about the velocity factor. You have to worry about the
one on the inside of the sleeve and the one on the outside of the
sleeve. They will be different. The outside of the sleeve will be that
of a regular wire like the hot end of the antenna. It will be the
other half of the dipole.

The inside will be a lower velocity like that of coax. It will depend
on dielectric and spacing as Tom said.

Some years back when VHF IMTS mobile phones were popular (remember
those) often times coaxial sleeve VHF antennas were supplied with them
for bumper mounting. That enabled the antenna to be installed high as
if it were mounted on the trunk or roof.
Those had a rather large sleeve on them. About an inch in diameter as
I remember.

73
Gary K4FMX

3735. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 14:50:34 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <eZSdnTLTxPAqRNDdRVn-hw@comcast.com>
Source record: 98807

I see that Astron does make what you want. www.astroncorp.com . I didn't see prices, or info as to where you can buy them. So, you would probably have to call them.

Tam/WB2TT

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message news:PYednam_zvOLSdDdRVn-gQ@comcast.com...
> Richard,
>
> Assuming there is a common ground, and input and output are the same
> polarity, what you want is called a buck converter. To roll your own,
> National and TI make chips. To buy a whole unit you need to go to a non
> hobby distributor's web site like Newark, Allied, Avnet, or Arrow. Some
> manufacturers of these things are Astec, Condor, Cosell, Elpac, and
> Lambda(expensive).
>
> Tam/WB2TT
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:24942-404CE28B-455@storefull-3254.bay.webtv.net...
> > Off topic, but you can`t power an antenna without power to the
> > transmitter.
> >
> > I`m looking for a d-c to d-c converter that takes 28 volts on the input
> > and supplies 12 volts on the output. Up to 8 amperes may regularly be
> > drawn from the supply. That`s about 100 watts.
> >
> > I need it now. That`s why I`m imposing on this group. There is no more
> > knowledgeable group to ask that I know of. I don`t have time to build
> > anything, though I`ve built such inverters and converters.
> >
> > A simple voltage divider or regulator is too lossy for high utilization.
> > I need lossless resistance.
> >
> > Maybe there is an applicable aircraft converter that is surplus
> > somewhere, or maybe there is a stock automotive item as there are such
> > 28-volt battery systems used in some big rigs. I`m in a hurry or I would
> > quietly do all the hunting myself and not bother anybody.
> >
> > I would like rugged, reliable, efficient, replaceable, and cheap.
> >
> > Thank you in advance for directions to the source of my d-c step-down
> > transformer.
> >
> > Please excuse the misuse of this forum, but I believe it is my best

> > resource for most things technical and unusual.
> >
> > Best regards, Richard Harrison, KB5WZI
> >
>
>

3736. Re: Anyone with Antenna Modeling software do me a favor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 15:08:36 UTC
From: "R. Scott" <washingtonhamTHREAD@yahoo.com>
Message-ID: <404DDDF4.FD86C57E@yahoo.com>
Source record: 98808

"R. Scott" wrote:
>
> > Since you like to tinker, simply download the free demo version
> > of EZNEC from: http://www.eznec.com
> > --
> > 73, Cecil http://www.qsl.net/w5dxp

Now Im trying to learn how to use it properly. UGH, but the fun
is in the finding :D

--
Rick N7HJ
Everett, Washington
Remove THREAD to reply.

3737. Re: Steppir Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 15:41:32 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <c2kojc$1dq6$1@f04n12.cac.psu.edu>
Source record: 98809

Ron,

One advantage the Stepir has is that it's frequency selective. That means that your effective dynamic range in the presence of strong out-of-band signals will be greater than for the same receiver using a log periodic antenna (or using a tribander for that matter.)

73,
Bob AD3K

--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

3738. Re: radio information

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 16:37:05 UTC
From: richardharrison@webtv.net
Message-ID: <3328-404DF2B1-521@storefull-3251.bay.webtv.net>
Source record: 98811

Irv Finkleman wrote:
"A little research on the net paid off."

It sure did. The Radio Research Paper is very interesting. Thank you for sharing it.

Best regards, Richard Harrison, KB5WZI

3739. Re: Anyone with Antenna Modeling software do me a favor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 16:42:08 UTC
From: tdonaly@aol.com
Message-ID: <20040309114208.03282.00001096@mb-m23.aol.com>
Source record: 98810

R. Scott wrote,
>
>"R. Scott" wrote:
>>
>> > Since you like to tinker, simply download the free demo version
>> > of EZNEC from: http://www.eznec.com
>> > --
>> > 73, Cecil http://www.qsl.net/w5dxp
>
>Now Im trying to learn how to use it properly. UGH, but the fun
>is in the finding :D
>
>--
>Rick N7HJ
>Everett, Washington
>Remove THREAD to reply.
>

You'll have even more fun if you cough up the cash and buy it.
73,
Tom Donaly, KA6RUH

3740. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 16:46:54 UTC
From: Dennis <Howdy.Doody@howdydoody.net>
Message-ID: <c2ksdurjj1@xuxa.iecc.com>
Source record: 98812
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
>
>
>Dennis wrote:
>
>> HI,
>>
>> Does anybody have a circuit that will
>> decode the WWVB signal,and output to a clock
>> led circuit?
>>
>> TIA,
>>
>> Dennis
>>
>>
>Hi,
>Unless you want to have fun building a clock, there are many such clocks
>or watches out there. I wear a watch. Very accurate in time keeping.
>Tony, VE6CGX
>

Yes, I have one of these clocks also. The thing is, these clocks
are set 6 times in a 24hr perod by the WWVB signal. The rest of the
time the time base is an ordinary crystal. I want my clock to be
set on a more continous basis. This could only happen with the
continous decoding of the signal. This is how the "professional"
clocks, such as those made by Spectracom work.

-Dennis

3741. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 16:46:59 UTC
From: not@home.com
Message-ID: <c2kse3rli1@xuxa.iecc.com>
Source record: 98813
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Sure....$20 at WalMart or RatShack. Mine sync'd up at midnight with a
full-scale signal on 60 Khz.....(c;

On 9 Mar 2004 00:00:15 GMT, Dennis <Howdy.Doody@howdydoody.net> wrote:

>HI,
>
>Does anybody have a circuit that will
>decode the WWVB signal,and output to a clock
>led circuit?
>
>TIA,
>
>Dennis
>
>

Larry W4CSC
POWER is our friend!

3742. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 16:57:12 UTC
From: richardharrison@webtv.net
Message-ID: <24943-404DF768-221@storefull-3254.bay.webtv.net>
Source record: 98814

Steve wrote:
"Chupe` mis huevos."

During the "Tio Paco" (Franco) era in Spain, the story goes that the Madrid newspaper printed the picture of a single egg on the front page. Underneath was printed: "Donde esta el otro?"

Franco`s officials didn`t think it funny and levied heavy penalties on the paper and everyone concerned.

Best regards, Richard Harrison, KB5WZI

3743. Re: Anyone with Antenna Modeling software do me a favor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 17:05:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404df9a3_8@corp.newsgroups.com>
Source record: 98815

Tdonaly wrote:
> You'll have even more fun if you cough up the cash and buy it.

Right on, Tom. No matter what the price, I've never had more fun
out of a piece of software than I have had with ELNEC/EZNEC. If
EZNEC were my motorcycle, it would have been worn out long ago.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3744. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 17:07:51 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2kton$au7$1@newshost.mot.com>
Source record: 98816

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:orqp409m48vv7gmd4l4jg706a4gva1mkac@4ax.com...
> On Mon, 8 Mar 2004 15:35:46 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >I wonder what happened to my last post

> Newsgroup material moves across the internet ...
> delay that is variable.
>
> For me, that delay is on the order of 1 second to three or four

I posted on Friday and couldn'r see it on Monday. I went to Googls and at least saw Richard H.s comment but not my own. I may have goofed. For the last few weeks now, i ALWAYS get an error message when posting though they have always shown up in a few seconds (if I look).
73, Steve

3745. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 17:13:08 UTC
From: kludge@panix.com
Message-ID: <c2ktv4$8ca$1@xuxa.iecc.com>
Source record: 98818
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Dennis <Howdy.Doody@howdydoody.net> wrote:
>In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
>>Dennis wrote:
>>
>>> Does anybody have a circuit that will
>>> decode the WWVB signal,and output to a clock
>>> led circuit?
>>>
>>Hi,
>>Unless you want to have fun building a clock, there are many such clocks
>>or watches out there. I wear a watch. Very accurate in time keeping.
>
>Yes, I have one of these clocks also. The thing is, these clocks
>are set 6 times in a 24hr perod by the WWVB signal. The rest of the
>time the time base is an ordinary crystal. I want my clock to be
>set on a more continous basis. This could only happen with the
>continous decoding of the signal. This is how the "professional"
>clocks, such as those made by Spectracom work.

You might consider the old Heathkit clock, which still turns up cheaply
at hamfests now and then.

If you build your own, make sure you use nixie tubes. That's important.
--scott
--
"C'est un Nagra. C'est suisse, et tres, tres precis."

3746. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 17:16:28 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <MZm3c.509043$I06.5528328@attbi_s01>
Source record: 98817

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:88hp40dqmb3m8n302gbbh3us46sv7ne5j0@4ax.com...
> On Mon, 08 Mar 2004 17:09:08 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
>
> The following excerpt is lifted directly from the Patent database for
> patent 5,625,367 at:
>
http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=/netahtml/search-adv.h
tm&r=1&p=1&f=G&l=50&d=ptxt&S1=unwin-art.INZZ.&OS=in/unwin-art&RS=IN/unwin-art
>
> >So the antenna experts in this group don't understand how it functions
> We need only observe that public record, to observe an obvious error:
> "To increase the directivity of such an antenna, a parasitic
> reflector element, usually tuned to a frequency slightly higher
> than the driver resonant frequency, can be placed parallel to the
> driver element along the boom. For further increased directivity,
> one or more director elements, usually tuned to frequencies
> slightly lower than the driver resonant frequency, can be placed
> at various distances along the boom on the other side of the
> driver element and parallel to the driver element."
> >the patent office accepted it as viable even tho
> >my writing was not clear because they had a samplke.
> Well, um, yes, perhaps.... Is this samplke patented too?

I feel I have to answer this diatribe
The error refered to above was made by me and at least one person made a
huge meal out of it in poast posts.
After I did my initial experiments I decided I wanted it in the record. Past
experience on this ney showed that change is not readily accepted but I felt
strongly enough on what I had found so a patent write up seemed logical. The
cost of a patent is upwards
of $10.000 which if one never had a patent some will pay. That was not the
situation in my case. So I decided to try and do all the work myself. The
main thing in patents are the claims , the claims and the claims and in
legal matters that is what everything revolves around if your intent is to
make money which is not my intent. The patent office requires you to give a
disertation on prior art and also a portion where what you are claiming is
something new. Yes I made an error with regard to yagi elements, an
overcheck by somebody would have revealed that but I omitted to do that and
obviously these portions of a patent aplication didn,t bother the patent
office either. The patent office did ask for explanation and proof which tho
costly I provided. They changed one claim and made it very restrictive with
my permission as my desires was for record only and not for investment

purposes and the patent was granted. So yes I made an error, I have stated this many times on this thread but it is a usefull tool to attack me even if not relavent. I have rejected any sugestions regarding making money from this or promoting it but I do defend the work that went into it as I do with with my present work which arouses anger as it is a fresh aproach to antennas.

>
> The source of your grief with books, trade magazines, periodicals,
> seminars, professionally juried papers, reports, educators,
> instructors, hams, engineers, citizen banders, Boy Scouts, and the
> rest appears to be in the near universality of their teaching that
> directors are tuned higher and reflectors are tuned lower than the
> driven element. Such inversions are consistent in your writings tho'
> with the backwards interpretations of Q, Series/Parallel resonance,
> Efficiency (did I forget anything?).

With respect to my comments on books and the portions that people extract from them to present themselves as experts.
It is not books themselves that I attack After allone must review the past to see the future. They provide the information that allows one to forge ahead AFTER you have received your education and not to provide one with an anchor that prevents thoughts of pushing the envelope. In this thread experts picked on a simple formula from a book as their anchor but they only trotted out the formula without care of the restrictions involved, This simple formula you will find pretty much in every technical book where filters are being discussed. The formula assumes that the little circuit does not radiate and the parts of the circuit are stuck together without connecting links such that radiation could be ignored. When I used that same circuit to make an antenna then I could not ignore the fact that connecting wires will radiate and thus any formula applied must include the radiating parts when using this simple formula, I saw no way around it. And the inclusion of the radiating parts thus did not duplicate the path of high impedance that unfolds with a simple parallel filter circuit
where radiation is ignored. Actually I found that high impedance
was not now a cast iron fact tho it did oftern result in high impedance hich was manageble. I then bought a professional computor program which as large enought to overcome errors that smaller programs can provide. The program came out with the same answers. So then I took even another step and made a antenna with accordance to the figures and again the answers
proved O.K. I then computed another parallel circuit from a different filter form to see if all of this was one large error and by golly that worked as it should and I got on the air (160 metres)
with the antenna in the horizontal position so it rotated and also in the vertical position (it is smaller than normal wavelength designed antennas) and had some very nice QSO .
The bottom line is that the antenna workes great and if the experts
are totaly correct in resisting the idea I put before them then I have found an excelent placebo which does not account for the contacts made around the country and where I have yet to reqire an amplihier (I do have one with 8877)

So for the benefit for some readers who have just happened on this attack I am using the antenna that I describe. With respect to the patent antenna above people in this town have made them by themselves as I am not in any business mode just a sharing mode with fellow experimenters. For the umpteeth time , Yes I, made an error when I said that directer length and reflector lengths on a yagi as the wrong way around. I apologise profusely for misguiding people on what a yagi looks like, an error that would NOT occured if I shelled out $10,000 to lawyers instead of tackling the job myself. I agree that yagi directors are usually shorter than the driven element and a reflector is usually longer
than the driven element, I was in error when I wrote otherwise.

Best Regards
Art Unwin KB9MZ.....XG

st73's
> Richard Clark, KB7QHC
>

3747. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 17:26:24 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2kurgceo1@newshost.mot.com>
Source record: 98719

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:404d0810_8@corp.newsgroups.com...
> Steve Nosko wrote:
> > I won't get
> > insulting (nudge, nudge, wink, wink), but I have this bone in my head
which
> > makes me WANT to say "I know I'm right, I tried to help you understand
so
> > you go prove it to yourself." without sounding insulting...
>
> Well, Steve, maybe you can tell us exactly what happens at the Z0-match
> point in the following system. What changes the direction and momentum
> of the reflected power wave from the load?
>
> 100W XMTR---50 ohm coax---x---1/2 WL 450 ohm ladder-line---50 ohm load

Well, Cecil... First, I don't know what point you refer to as "Z0-match
point".

If it is the "---x---", I proceed...
For the way you pose the problem (with no other constraints), the Z @ "x"
seen toward the load is 50 ohms, so all is happy in the universe. The 100W
enters the ladder line and exits at the "50 ohm load". I'm obviously
assuming I don't have balanced-to-unbalanced-problems and I know the good
'ole G5RV does this.
So I'd have to ask you just what point are you examining? Is it the
use of balanced T-Line as a matching transformer in an unbalanced system, or
something else?
I think this setup is a sub-optimal way to do it...but Hey! if it
works, use it. Manu suboptimal things are used all the time.

I don't know from "momentum" of power. If you asking what is going on
within the section of ladder line... The easy explanation is that the waves
act such that the two ends look line 50 ohms (OH YES, this DOES assume the
TX has a 50 ohm Zout... I think). I'd have to study the detail for a while
to come up with my mental model and be able to put it into words. I know
that the subject of "which way is power flowing" and "what happens at the
source" and "how many reflections really occur" are big topics here. I
don't get into these discussions because 1) it's been a long time since I
studied it and 2) the path and nitty-gritty detail has faded into the far
recesses of my mind and I would surely stumble around for a proper answer.

I am currently teaching a class in communications which will get into
T-lines later. If I need to get this deeply into the subject, perhaps I'll
come back and post my take on it.

--
Steve N, K,9;d, c. i My email has no u's.

3748. Re: How to get to r.r.a.a. archives

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 17:27:07 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2kusrcjq1@newshost.mot.com>
Source record: 98720

TNX, Steve

<wa0goz@arrl.net> wrote in message news:404D1BCF.2000@arrl.net...
> Steve Nosko wrote:
> >
> > Since it looks like a post of mine is either marked as being read or I
> > didn't send it, I'd like to get the one I responded to. How?
> >
> > --
> > Steve N, K,9;d, c. i My email has no u's.
>
> In case you have trouble
>
>
ftp://sunsite.unc.edu/pub/academic/agriculture/agronomy/electronics+computers/ANTENNAS
>
> Henry WA0GOZ

3749. Re: FM antenna recommendation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 17:34:54 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2kvbe$d6t$1@newshost.mot.com>
Source record: 98721

"Mark Atanovich" <m.atanovich@cox.net> wrote in message
news:1Ia3c.93$Nj.58@fed1read01...
> Greetings,
> >
> On a related note, if I were to stack dissimilar antennas, what's the best
> way phase align them? I'm assuming I would line up the driven elements.
>
> Thx.

I think this is not certain. The phase of the signal on the feed line can
also be affected by the other elements and tuning.
--
Steve N, K,9;d, c. i My email has no u's.

3750. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 17:38:26 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2kvi2dkc1@newshost.mot.com>
Source record: 98722
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

"Dennis" <Howdy.Doody@howdydoody.net> wrote in message
news:c2j1efret1@xuxa.iecc.com...
> HI,
>
> Does anybody have a circuit that will
> decode the WWVB signal,and output to a clock
> led circuit?
> TIA, Dennis

http://www.amug.org/~jthomas/wwvb.html

--
Steve N, K,9;d, c. i My email has no u's.

3751. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 17:52:04 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2l0bk$en4$1@newshost.mot.com>
Source record: 98723

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:404d055f$1_8@corp.newsgroups.com...
> Steve Nosko wrote:
> > In my nomenclature, all "resistance" dissipates power as heat.

You need to include the rest of my post to to it justice. I discuss
the terminology distinction. I go on the say that the term "real part (of
an impedance)" is better suited (as a name) to what some like to call
"loss-less resistance".

In the chopper case that Richard Harrison posed, there is no parallel to the
T-line situation. There, he was comparing a chopper with 50% duty cycle to
an equal valued resistor and calling the chopper a "loss-less resistance"

>
> Even SQRT(L/C)???? The Z0 of transmission line is a resistance,

I don't consider that term (resistance) suitable for this situation.
"real part of Z" is better. I think to some this is the same thing, but
obviously it is not. I believe this is what is causing all the confusion.
Remember, the Z0 is properly called "Characteristic Impedance" or "Surge
Impedance". I think this distinction makes the subject easier to understand
since it eliminates the confusing term "loss-less resistance".

> Seems the two "non-equivalent" IEEE definitions resolve the
> contradictions in your posting.

I'd have to read the full this before having an opinion!

--
Steve N, K,9;d, c. i My email has no u's.

3752. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 18:01:04 UTC
From: wa5bdu@yahoo.com
Message-ID: <ca1a467b.0403091001.2a9a8df2@posting.google.com>
Source record: 98724

I see this paper as a variation on a line of reasoning that goes like this:

1) A conjugate match results in maximum power delivered to a load, so it is good.

2) A connection where the load has much higher resistance than the Thevenin equivalent source resistance results in high efficiency, so it is also good.

3) Since (1) and (2) are both good, they must be equivalent to each other. Therefore a conjugate match is what it is not. This is an apparent contradiction.

4) The contradiction is resolved by postulating a special kind of resistance that adds to the source resistance. However, it has no physical effect and exists only to resolve the contradiction in (3).

All good matches are now conjugate matches and everyone is happy!

73--Nick, WA5BDU

"Dave" <noone@nowhere.com> wrote in message news:<FaWdnTbp6v7VPd7dRVn-sQ@crocker.com>...
> have you guys read this one yet?
>
> www.qsl.net/w9dmk/MPTT.pdf

3753. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 18:59:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b7vr405q5o83mjrt4l37hoqlp93mu70cm2@4ax.com>
Source record: 98725

On Tue, 09 Mar 2004 17:16:28 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

>I feel I have to answer this diatribe

The usage of the word "diatribe" is an emotional attack on the simple
statements of fact.

>Yes I made an error with regard to yagi elements, an
>overcheck by somebody would have revealed that but I omitted to do that and
>obviously these portions of a patent aplication didn,t bother the patent
>office either.

Hence the Patent Office does not confer any judgement of validity to
poor interpretations of science.

>So yes I made an error, I have stated
>this many times on this thread but it is a usefull tool to attack me even if
>not relavent.

Here we find the emotional crutch of "attack" (characteristically
without evidence). The relevance is in a lack of contrition. Your
preference to reduce these discussions into diversions of personal and
emotional outbursts with scatological and sexual innuendo simply
underlines the poor logic.

> With respect to my comments on books and the portions that people extract
>from them to present themselves as experts.

You, least of all, have no credentials to pass judgement on who and
what constitutes authority. You have mocked careered Engineers
trained in an art that is foreign to you (as evidenced by such
egregious errors illustrated in the patent extract offered). What is
more, you have rejected references in those books and their authors
who have material that bears against your claims.

>Actually I found that high impedance
>was not now a cast iron fact tho it did oftern result in high impedance hich
>was manageble. I then bought a professional computor program which as large
>enought to overcome errors that smaller programs can provide. The program
>came out with the same answers.

Let me observe one significant quality of engineering and science that
is obvious to all in that community: it is the presentation of ideas
with data and references. Insofar as this "claim" to have done this
work with a program, we see nothing revealed in the nature or scope of
that design, nor the publication of that design, nor published data.

"Claims" in isolation of supporting material are not ideas.

>So then I took even another step and made a
>antenna with accordance to the figures and again the answers
>proved O.K. I then computed another parallel circuit from a different filter
>form to see if all of this was one large error and by golly that worked as
>it should and I got on the air (160 metres)

This is called anecdotal evidence and within the engineering and scientific community is viewed with suspicion when no further details are offered. Does this sound familiar?

>I agree that yagi directors are usually shorter than the driven
>element and a reflector is usually longer
>than the driven element, I was in error when I wrote otherwise.

And the error is compounded and propagated anew. USUALLY? This admission has to be qualified? No single example that diverges from the USUAL case is offered. Such statements as the one above illustrate the extremely poor quality of reportage that is long on unsubstantiated "claims" and totally devoid of any data.

Let's consider, the various issues of Q, Efficiency, Resonance and such, have all been answered but are characteristically met with silence or evasion in response. We have been repeating this cycle for years and you provide no suggestion of amending, retracting, nor explaining your stance with the care that is found in scientific reportage.

I have no doubt that you will also continue to abuse those who are held in higher esteem. I need only reflect on your recent outrageous mistreatment of Richard Harrison, KB5WZI, with your disgusting tone and vile gutter language. I then compare that to this gentleman's recent appeal for a Power supply that was met immediately with rapid responses from 5 different correspondents. You should be so lucky to have such spontaneous, willing, and appreciative compatriots who enthusiastically step forward to aid him.

73's
Richard Clark, KB7QHC

3754. Re: 2.4 GHz waveguide/horn antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 19:15:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k05s4056d0cgh12rkh5vssc8hbtk5mkg0i@4ax.com>
Source record: 98726

On Tue, 09 Mar 2004 10:40:10 +0100, Jeppe <no@spam.com> wrote:

>But are you sure that 1 wavelenght is the optimum value for the other
>dimension of the cross section? That is more than in the examples I
>have seen on the net.
>
>Is there some reason for choosing a 2 : 1 ratio of the two dimensions?
>
>I may add that in the first horn I made, the dimensions were 0.36 x
>0.72 wave. It worked, but probably not quite optimallly (I lack real
>measuring equipment.) I then tried to put the antenne rod
>perpendicular to the SMALLER side instead, but that did not work at
>all (very weak signal).
>
>73
>
>Jeppe (former OZ3FV, hav'n't renewed my licence for about 30 years :-(

Hi Jeppe,

The physical/wavelength dimensioning in microwaves is one of the best ways to visualize transmission concepts. The ratios you observe offer the means to render conduction and isolation. The best treatment of this subject will be found in Frederick Terman's work.

The placement issue of the rod is easily answered. In the picture you have, it aligns with the creation of electrical fields that would be naturally beneficial to propagation. When you experimented by placing the probe on the other wall (90ï¿½ off) you lost what is called mode coupling. This is because what you have is a voltage probe that used to couple to the voltage modes of the resonator. With this 90ï¿½ twist, your voltage probe was trying to excite the current modality. You should have, instead, built a coupling loop to create the magnetic fields that correspond to the cavity's mode. You would have observed the same level of gain then.

Lest some of my treatment lead to confusion, voltage probes (the rod) couple to electric fields; current loops (the alternative for that experimental position) couple to magnetic fields. The electric fields and the magnetic fields are at 90ï¿½ angle to one another in what is called a "mode." The mode is generally fixed in one orientation (we can add complexities of many modalities, but it wouldn't add any significant instruction). Thus with this fixed geometry, you shift the position of the coupling to suit all considerations.
Additionally, you must take care to orient the loop correctly to work.

73's
Richard Clark, KB7QHC

3755. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 19:57:15 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2l7ma$p82$1@newshost.mot.com>
Source record: 98727

"Nick Kennedy" <wa5bdu@yahoo.com> wrote in message
news:ca1a467b.0403091001.2a9a8df2@posting.google.com...
> I see this paper as a variation on a line of reasoning that goes like
> this:
>
> 1) A conjugate match results in maximum power delivered to a load, so
> it is good.
>
> 2) A connection where the load has much higher resistance than the
> Thevenin equivalent source resistance results in high efficiency, so
> it is also good.
>
> 3) Since (1) and (2) are both good, they must be equivalent to each
> other. Therefore a conjugate match is what it is not. This is an
> apparent contradiction.
>
> 4) The contradiction is resolved by postulating a special kind of
> resistance that adds to the source resistance. However, it has no
> physical effect and exists only to resolve the contradiction in (3).
>
> All good matches are now conjugate matches and everyone is happy!
>
> 73--Nick, WA5BDU

nick,
I like your summary. You have captured the essence of my original
efficiency puzzle...except for your #4. My puzzle was not intended to be an
equivlent to maximum power transfer. Only an "efficiency enhancement"
technique/concept.idea/proposal. I did not intend to imply that my solution
was transferring "maximum power" only a higher efficiency than the alternate
case that I described.
Your #3 is clearly only for the discussion. The "they are both good,
therefore, they are equivalent" concept clearly can't be a serious
conclusion, just an argument tool.

--
Steve N, K,9;d, c. i My email has no u's..

3756. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 20:04:46 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <yrp3c.223072$uV3.867517@attbi_s51>
Source record: 98728

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:b7vr405q5o83mjrt4l37hoqlp93mu70cm2@4ax.com...
> On Tue, 09 Mar 2004 17:16:28 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
>
> >I feel I have to answer this diatribe
>
> The usage of the word "diatribe" is an emotional attack on the simple
> statements of fact.
>
> >Yes I made an error with regard to yagi elements, an
> >overcheck by somebody would have revealed that but I omitted to do that
and
> >obviously these portions of a patent aplication didn,t bother the patent
> >office either.
>
> Hence the Patent Office does not confer any judgement of validity to
> poor interpretations of science.
>
> >So yes I made an error, I have stated
> >this many times on this thread but it is a usefull tool to attack me even
if
> >not relavent.
>
> Here we find the emotional crutch of "attack" (characteristically
> without evidence). The relevance is in a lack of contrition. Your
> preference to reduce these discussions into diversions of personal and
> emotional outbursts with scatological and sexual innuendo simply
> underlines the poor logic.
>
> > With respect to my comments on books and the portions that people
extract
> >from them to present themselves as experts.
>
> You, least of all, have no credentials to pass judgement on who and
> what constitutes authority. You have mocked careered Engineers
> trained in an art that is foreign to you (as evidenced by such
> egregious errors illustrated in the patent extract offered). What is
> more, you have rejected references in those books and their authors
> who have material that bears against your claims.
>
> >Actually I found that high impedance
> >was not now a cast iron fact tho it did oftern result in high impedance
hich

> >was manageble. I then bought a professional computor program which as
large
> >enought to overcome errors that smaller programs can provide. The program
> >came out with the same answers.
>
> Let me observe one significant quality of engineering and science that
> is obvious to all in that community: it is the presentation of ideas
> with data and references. Insofar as this "claim" to have done this
> work with a program, we see nothing revealed in the nature or scope of
> that design, nor the publication of that design, nor published data.
> "Claims" in isolation of supporting material are not ideas.
>
> >So then I took even another step and made a
> >antenna with accordance to the figures and again the answers
> >proved O.K. I then computed another parallel circuit from a different
filter
> >form to see if all of this was one large error and by golly that worked
as
> >it should and I got on the air (160 metres)
>
> This is called anecdotal evidence and within the engineering and
> scientific community is viewed with suspicion when no further details
> are offered. Does this sound familiar?
>
> >I agree that yagi directors are usually shorter than the driven
> >element and a reflector is usually longer
> >than the driven element, I was in error when I wrote otherwise.
>
> And the error is compounded and propagated anew. USUALLY? This
> admission has to be qualified? No single example that diverges from
> the USUAL case is offered. Such statements as the one above
> illustrate the extremely poor quality of reportage that is long on
> unsubstantiated "claims" and totally devoid of any data.
>
> Let's consider, the various issues of Q, Efficiency, Resonance and
> such, have all been answered but are characteristically met with
> silence or evasion in response. We have been repeating this cycle for
> years and you provide no suggestion of amending, retracting, nor
> explaining your stance with the care that is found in scientific
> reportage.
>
> I have no doubt that you will also continue to abuse those who are
> held in higher esteem. I need only reflect on your recent outrageous
> mistreatment of Richard Harrison, KB5WZI, with your disgusting tone
> and vile gutter language. I then compare that to this gentleman's
> recent appeal for a Power supply that was met immediately with rapid
> responses from 5 different correspondents. You should be so lucky to
> have such spontaneous, willing, and appreciative compatriots who
> enthusiastically step forward to aid him.
>

> 73's
> Richard Clark, KB7QHC

So Americans dominate this thread and now you have the backing of all American experts that post regularly on this group regarding antennas.It is quite easy for a casual reader to run down the list of some of the posters many of which have written books and articles on antennas that gives legitamacy to your interpretations of science but even if their names are known to many I doubt it will enhance their reputation by their support.
You have a tongue for Shakespeare which when spread around loosely may win debates but it cannot change science even tho
Shakespearian literature is where you obtained your degree does provide benefits. It surely must be clear to readers that connections between passive lumped elements are elements that contain distributed passive elements and thus can radiate. These
elements must clearly be accounted for in any real world arrangement. You and others have been succesfull in debating this
as a non issue and parallel circuits must present a high impedance regardless of the parallel circuit that is employed including the case where I have made an assembly for radiating purposes in parallel form containing only passive devices. So no matter how successful you are in parying details or expanding responses with fractured English from Shakesperian times your knoweledge of
old english literature does not trump the true facts of science.
Smear all you want but those with a scientific background will not align themselves with you that all parallel circuits will have a high impedance tho if you answer the Question posed to you by Cecil asking if you are aware that even a resister has inductive properties it may provide reasons for fellow Americans to back you up against the World. Winning a debate seems more important
to some people as obscuration always defeats education and some prefere the direction taken of some forums at the present time
where anything goes. Well so be it, we have lost very many educated antenna information providers from this group because of personal attacks but it must be said that we have gained many more posters to the attack motives which are preferable to many
so your idea of what this antenna net is all about will prevail.
I really can't see how we can attract the younger generation to this hobby if we crush all ideas of free expression with the denial of anything new and only use the hobby as a platform to attack new ideas with the inference that the old guys know everything there is to know. If comunication in the hobby relies on verbal diarrea or DX converations then the hobby will most certainly die and we should step back from resisting those who want to use the frequencies for the common good and not the diminishing few. Computors have now become exciting to the next generations which is good, where verbal diarea is just a product of a fading hobby dominated by old people and old ideas.
Nuff said ,for now America is to dominate how science is to be seen but the next thing is the World to dominate.

Art Unwin KB9MZ.....XG.

3757. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 20:09:04 UTC
From: "Mark S. Holden" <mark@bmas.org>
Message-ID: <c2l890$7jm$1@xuxa.iecc.com>
Source record: 98729
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Dennis wrote:
> <snip>
>
> Yes, I have one of these clocks also. The thing is, these clocks
> are set 6 times in a 24hr perod by the WWVB signal. The rest of the
> time the time base is an ordinary crystal. I want my clock to be
> set on a more continous basis. This could only happen with the
> continous decoding of the signal. This is how the "professional"
> clocks, such as those made by Spectracom work.
>
> -Dennis

Observatories often use a GPS to feed their computers accurate time. That may be a solution worth looking into.

3758. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 20:45:54 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404e2d2f_3@corp.newsgroups.com>
Source record: 98730

Steve Nosko wrote:
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>100W XMTR---50 ohm coax---x---1/2 WL 450 ohm ladder-line---50 ohm load
>
> I don't know from "momentum" of power. If you asking what is going on
> within the section of ladder line... The easy explanation is that the waves
> act such that the two ends look line 50 ohms

It's a pretty simple question. The energy wave reflected from the load
possesses energy and momentum, both of which must be conserved. There
is no reflected energy on the 50 ohm coax and therefore no momentum in
the reflected waves on the 50 ohm coax. So what changes the direction
and momentum of the energy wave reflected from the load?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3759. Re: 2.4 GHz waveguide/horn antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 20:46:46 UTC
From: richardharrison@webtv.net
Message-ID: <24942-404E2D36-598@storefull-3254.bay.webtv.net>
Source record: 98732

Jeppe wrote:
"Of course the height of the waveguide has to be more than lambda / 4 in order for the lambda / 4 rod to fit in. But how much bigger should it be?"

Not critical.

Circular waveguides work but have a disadvantage of allowing multiple modes. Square waveguides share this disadvantage.

To restrict formation of multiple modes of propagation, elliptical and rectangular waveguides are used.

We are familiar with the illustrative and instructive diagram of formation of a rectangular waveguide from countless 1/4-wave short-circuit stubs attached to a parallel-wire transmission line. That would require one dimension of a waveguide to be at least 1/2-wavelength. That computes and it has less attenuation if the wave has just a tiny bit more elbow room.

There is no requirement on how small the spacing of a transmission line can be as long as it doesn`t short where you don`t want it to short. There is no abrupt minimum spacing for the small dimension of a waveguide either. As in the longer dimension of the waveguide cross-section, the attenuation rises as the guide narrows, but it does not cut off propagation down the guide at 1/4 wavelength as the longer dimension does at 1/2-wavelength.

I don`t have a catalog at hand but it seems to me that rectangular guides are about twice as wide as they are tall. This ratio has proved to work very well.

See page 265 of "Transmission Lines, Antennas, and Wave Guides" by King, Mimno, and Wing for confirmation and more details.

Best regards, Richard Harrison, KB5WZI

3760. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 20:52:54 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404e2ed2_3@corp.newsgroups.com>
Source record: 98731

Steve Nosko wrote:

> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Even SQRT(L/C)???? The Z0 of transmission line is a resistance,
>
> I don't consider that term (resistance) suitable for this situation.
> "real part of Z" is better.

Steve, the "real part of Z" is the IEEE definition of "resistance",
i.e. they are exactly the same thing.

Z = R + jX Guess what the R stands for? Methinks the problem is that
people confuse "resistor" and "resistance". A resistance is not
necessarily a resistor. More often than not, it is simply a V/I ratio.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3761. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 21:29:44 UTC
From: richardharrison@webtv.net
Message-ID: <16977-404E3748-74@storefull-3253.bay.webtv.net>
Source record: 98733

Steve Nosko wrote:
"Remember, the Zo is properly called "Characteristic impedance and Surge impedance."

No doubt impedance is used because some are uncomfortable calling a resistance a resistance when it wastes no energy. I think this is unfortunate because it weakens the important idea that resistance is first and foremost a ratio of voltage to current in which the voltage and current are in-phase. Those who insist that every resistance wastes electrical energy by converting it to heat are still firmly stuck in the d-c era.

Terman writes on page 88 of his 1955 edition:
"The characteristic impedance Zo is the ratio of voltage to current in an individual wave--- it is also the impedance of a line that is infinitely long or the impedance of a finite length of line when ZL=Zo. It will be noted that at radio frequencies the characteristic impedance is a resistance that is independant of frequency."

Best regards, Richard Harrison, KB5WZI

3762. Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 21:48:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404e3bd1_6@corp.newsgroups.com>
Source record: 98734

"The new megaphone being deployed to Iraq can operate at 145 decibels
at 300 yards, according to American Technology, well above the normal
threshold for pain."
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3763. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 22:09:55 UTC
From: Dave <noone@nowhere.com>
Message-ID: <avudnQVsmuVJ3dPdRVn-tw@crocker.com>
Source record: 98735

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:404e3bd1_6@corp.newsgroups.com...
> "The new megaphone being deployed to Iraq can operate at 145 decibels
> at 300 yards, according to American Technology, well above the normal
> threshold for pain."

now how do they transfer the maximum power out of it into the air? does the horn look like a lossless resistance to the standing sound wave, or is it a lossy transformation of the travelling wave? surely there must be an optical equivalent model that can be defined as a 4-port network transfer solution to show how it works?

just trying to pull this totally ot thread into the other ones that have strayed way off of where they started.

3764. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 22:11:50 UTC
From: Dave <noone@nowhere.com>
Message-ID: <t8WdnY7c9YOq3NPdRVn-iQ@crocker.com>
Source record: 98736

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:404e2d2f_3@corp.newsgroups.com...
> Steve Nosko wrote:
> > "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >>100W XMTR---50 ohm coax---x---1/2 WL 450 ohm ladder-line---50 ohm load
> >
> > I don't know from "momentum" of power. If you asking what is going on
> > within the section of ladder line... The easy explanation is that the
waves
> > act such that the two ends look line 50 ohms
>
> It's a pretty simple question. The energy wave reflected from the load
> possesses energy and momentum, both of which must be conserved. There
> is no reflected energy on the 50 ohm coax and therefore no momentum in
> the reflected waves on the 50 ohm coax. So what changes the direction
> and momentum of the energy wave reflected from the load?

oh wow, all the way to momentum calculations now. is it time to point you
all at a design for a pure electromagnetic rocket engine that uses the
momentum of traveling waves to push itself along??

3765. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 22:14:04 UTC
From: richardharrison@webtv.net
Message-ID: <13013-404E41AC-170@storefull-3256.bay.webtv.net>
Source record: 98737

Nick, WA5BDU wrote:
"3) Since (1) and (2) are both good, they must be equivalent to each other."

(1) is the maximum power transfer theorem.

(2) is an efficiency statement.

(1) and (2) are dissimilar.

(1) says that the only way to get all the power you can from a source is to adjust the load resistance to equal that of the source and to eliminate any reactance which opposes power transfer. This is demonstrable; no need to argue.

(2) Resistance of the type which converts electrical energy to heat and that is in the path of energy flow extracts energy and reduces efficiency. It is indubitably minimized to maximize efficiency.

The argument in this thread is on the existence of lossless resistance. Proof of the existence of lossless resistance is demonstrable. We have power sources delivering maximum power without dissipating as much power within as is being delivered to the load. That is conclusive.

Best regards, Richard Harrison, KB5WZI

3766. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 23:10:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7tgs40p6bvm7blc7f0iieq3avkgaqsecqr@4ax.com>
Source record: 98738

On Tue, 09 Mar 2004 20:04:46 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

>So Americans dominate this thread and now you have the backing of all
>American experts that post regularly on this group regarding antennas.

Art, true to my forecast and your character, you dwell on personality
to perpetuate unsubstantiated claims and to avoid technical discourse.
Your first reaction is self-condemning. I am not interested in your
poor opinion of world scientists and engineers. I note you spend very
little time in correspondence with them here in the group, instead
choosing to focus on your trivial issues.

>It is
>quite easy for a casual reader to run down the list of some of the posters
>many of which have written books and articles on antennas that gives
>legitamacy to your interpretations of science but even if their names are
>known to many I doubt it will enhance their reputation by their support.

As if I cared....

>You have a tongue for Shakespeare which when spread around loosely may win
>debates but it cannot change science even tho
>Shakespearian literature is where you obtained your degree does provide
>benefits.

Would I be charged as playing Socrates if I employed the apparently
Greek word Pathetic? Again, you choose to debate style rather than
substance. Unfortunately you have even less capacity to go there.
This continues the observation that you are far more interested in
personalities than technical discussion. To your credit you are aware
of your utter inferiority to challenge one who has command of the
Queen's English and this no doubt throws chaos into the mix of your
rejected allegiances.

>You and others have been succesfull in debating this
>as a non issue and parallel circuits must present a high impedance

This was the topic of your own origination, note the subject line
above as it is entirely your responsibility for its framing. You were
responded to, to the points offered. It is clear that this forum's
mandate for the discussion of technical issues holds no interest for
you.

>I really can't see how we can attract the younger generation to this hobby

Your vulgar gutter language is no attractive feature by any means.

>Nuff said ,for now America is to dominate how science is to be seen but the
>next thing is the World to dominate.

Tell that to the Marines. I am not interested in your hate-America
baiting.

73's
Richard Clark, KB7QHC

3767. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 23:26:28 UTC
From: "Ken Coghill III, WB4ZOH" <wb4zoh@arrl.net>
Message-ID: <2JqdnRX1oIUmz9PdRVn-tw@comcast.com>
Source record: 98739

A real "hot button" topic as BPL is here in the city of Manassas, Va and disrupts 10-40m. AMRAD is conducting "tests", amateur radio operators are sending letters to Congressmen, Representatives, City Officials and the FCC.

However, as the City receives serious $$$, it will become very obvious the Amateur Radio Service will be ignored.

Ken Coghill, WB4ZOH
Manassas, VA

thatcher wrote:

> http://biz.yahoo.com/fool/040303/1078348320_1.html
>
>
> *Motley Fool*
> Broadband and Utilities, Oh My
> Wednesday March 3, 4:12 pm ET
> By Mark Mahorney
>
> Only a year ago, broadband over power line (BPL) was seen as a
> technology with an uncertain future and far from implementation. Despite
> early snafus, BPL has ironed out its kinks and is now being rolled out.
> Though largely ignored, this is one of the most exciting events to hit
> technology news in a long time.
>
> ADVERTISEMENT
>
> Considering how long the Internet has been sharing phone lines, it's
> taken a long time for power lines to reach the dual-use point. Cable and
> DSL Internet service providers have been crossing their fingers hoping
> it wouldn't happen.
>
> It's sneaking up on them just as cable Internet launched a sneak attack
> on dial-up providers. Now, the dial-up providers are largely dependent
> on phone company partnerships and rural customers who can't get cable or
> DSL. But what will become of them if those customers -- which represent
> a significant portion of the population -- can get broadband Internet
> over their power lines? And who would have thought we may soon be paying
> our power company for Internet access?
>
> Yesterday, *Cinergy* (NYSE: CIN <http://finance.yahoo.com/q?s=cin&d=t> -
> News <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
> Broadband subsidiary and partner Current Communications are rolling out

> the BPL service in the Cincinnati, Ohio area. After testing the service
> in a small region, the company is ready to unleash the power (no pun
> intended). It claims its service is faster -- more than three megabytes
> per second compared with cable's roughly two megs per second -- and
> cheaper than cable Internet.
>
> Test customers have been happy with the service, and there have been no
> problems with interference. Furthermore, all that's needed to tap into
> it is a $30 HomePlug power line modem, which the company will be giving
> away.
>
> Cinergy isn't the only utility looking at this technology, either. There
> are numerous power companies developing the capability or watching its
> development closely. Internet start-ups like Current Communications are
> waiting in the wings to help the utilities initiate and manage the service.
>
> It's a potentially huge revenue source for the utilities, with the
> possibility of being a huge revenue drain for the current Internet
> providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
> <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
> <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
> Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
> <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
> <http://finance.yahoo.com/q?s=bls&d=t> - News
> <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications* (NYSE:
> SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
> <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional dial-ups
> like *Time Warner's* (NYSE: TWX <http://finance.yahoo.com/q?s=twx&d=t> -
> News <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
> *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
> News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying attention.
>
> From the look of things, this technology will roll out much faster than
> most people expect. I am certainly willing to give it a try if and when
> it comes to my area. And I recommend you check with your local power
> company to see if it has any plans to implement the technology. If so,
> consider taking a good look at both the stock and the service. It could
> be the next big thing.
>
> /What do you think this new technology means for cable companies like
> Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
> service providers like Time Warner's AOL
> <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
> other Fools on our discussion boards./
>
> /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
> doesn't own shares of any companies mentioned./
>

--
Ken Coghill III, WB4ZOH
"Without music life would be a mistake" - - Nietzsche

3768. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-09 23:46:00 UTC
From: thatcher <thatc4@net.com>
Message-ID: <c2lmq702jcr@enews4.newsguy.com>
Source record: 98742

The FCC should be taken to court for failing to do its responsibility.

Ken Coghill III, WB4ZOH wrote:

> A real "hot button" topic as BPL is here in the city of Manassas, Va
> and disrupts 10-40m. AMRAD is conducting "tests", amateur radio
> operators are sending letters to Congressmen, Representatives, City
> Officials and the FCC.
>
> However, as the City receives serious $$$, it will become very obvious
> the Amateur Radio Service will be ignored.
>
> Ken Coghill, WB4ZOH
> Manassas, VA
>
>
>
>
>
>
>
> thatcher wrote:
>
>> http://biz.yahoo.com/fool/040303/1078348320_1.html
>>
>>
>> *Motley Fool*
>> Broadband and Utilities, Oh My
>> Wednesday March 3, 4:12 pm ET
>> By Mark Mahorney
>>
>> Only a year ago, broadband over power line (BPL) was seen as a
>> technology with an uncertain future and far from implementation.
>> Despite early snafus, BPL has ironed out its kinks and is now being
>> rolled out. Though largely ignored, this is one of the most exciting
>> events to hit technology news in a long time.
>>
>> ADVERTISEMENT
>>
>> Considering how long the Internet has been sharing phone lines, it's
>> taken a long time for power lines to reach the dual-use point. Cable
>> and DSL Internet service providers have been crossing their fingers
>> hoping it wouldn't happen.
>>
>> It's sneaking up on them just as cable Internet launched a sneak

>> attack on dial-up providers. Now, the dial-up providers are largely
>> dependent on phone company partnerships and rural customers who can't
>> get cable or DSL. But what will become of them if those customers --
>> which represent a significant portion of the population -- can get
>> broadband Internet over their power lines? And who would have thought
>> we may soon be paying our power company for Internet access?
>>
>> Yesterday, *Cinergy* (NYSE: CIN
>> <http://finance.yahoo.com/q?s=cin&d=t> - News
>> <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
>> Broadband subsidiary and partner Current Communications are rolling
>> out the BPL service in the Cincinnati, Ohio area. After testing the
>> service in a small region, the company is ready to unleash the power
>> (no pun intended). It claims its service is faster -- more than three
>> megabytes per second compared with cable's roughly two megs per
>> second -- and cheaper than cable Internet.
>>
>> Test customers have been happy with the service, and there have been
>> no problems with interference. Furthermore, all that's needed to tap
>> into it is a $30 HomePlug power line modem, which the company will be
>> giving away.
>>
>> Cinergy isn't the only utility looking at this technology, either.
>> There are numerous power companies developing the capability or
>> watching its development closely. Internet start-ups like Current
>> Communications are waiting in the wings to help the utilities
>> initiate and manage the service.
>>
>> It's a potentially huge revenue source for the utilities, with the
>> possibility of being a huge revenue drain for the current Internet
>> providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
>> <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
>> <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
>> Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
>> <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
>> <http://finance.yahoo.com/q?s=bls&d=t> - News
>> <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications*
>> (NYSE: SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
>> <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional
>> dial-ups like *Time Warner's* (NYSE: TWX
>> <http://finance.yahoo.com/q?s=twx&d=t> - News
>> <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
>> *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
>> News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying
>> attention.
>>
>> From the look of things, this technology will roll out much faster
>> than most people expect. I am certainly willing to give it a try if
>> and when it comes to my area. And I recommend you check with your
>> local power company to see if it has any plans to implement the

>> technology. If so, consider taking a good look at both the stock and
>> the service. It could be the next big thing.
>>
>> /What do you think this new technology means for cable companies like
>> Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
>> service providers like Time Warner's AOL
>> <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
>> other Fools on our discussion boards./
>>
>> /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
>> doesn't own shares of any companies mentioned./
>>
>
>

3769. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 00:01:12 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2llvpgsr1@newshost.mot.com>
Source record: 98740

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:13013-404E41AC-170@storefull-3256.bay.webtv.net...
> [...]
> The argument in this thread is on the existence of lossless resistance.
> Proof of the existence of lossless resistance is demonstrable. We have
> power sources delivering maximum power without dissipating as much power
> within as is being delivered to the load. That is conclusive.
>
> Best regards, Richard Harrison, KB5WZI
>

Ahhh! Thanks, Richard. Now I see the essence of the discussion. I believe there is an inherent conflict in the terms you have, namely; "delivering maximum power" and "without dissipating as much power...as ...the load".

This is an interesting tack, but I don't see the demonstration you refer to. I am missing just what it is that gets to the "Loss-less resistance" conclusion.

We know that the MPT Theorem says the source and load powers must be equal for THAT situation...so. I think (I hope) you agree that in this case, the limiting factor for the delivered power is the source's "Internal" resistance. Now lets look at a case where the source Z is LESS than the load Z.

I will take for a first example (at the risk of being accused of being "stuck" in DC) a standard series regulated power supply. (this is the same example I described with my "change the load Z to a higher value" example earlier.) The supply can be designed to supply many watts, right! Yet they have very low output resistances, right!

Lets look here:

1- Is it putting out its "maximum power" when loaded to its rating?

2- Is it dissipating an amount equal to the load?

3- What is the limiting factor for its output current (what is it that allows us to only draw its rated current?)?

SO, are you saying that we have some "Loss-Less Resistance", in this case, which equals the load resistance?

If we were to put a load on it which equaled the 0.05 ohm output resistance, then what situation do we have? Maximum power transfer?

In the above case, the series pass transistor power dissipation ability is the limiting factor on the output power of the supply, not the internal

resistance. I can make the same case for a switching supply and my "raise the supply voltage" example is the same thing.

SO...?

--
Steve N, K,9;d, c. i My email has no u's.

3770. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 00:10:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8ils401ufej0mqmn3pmefc4qrvppejjhm7@4ax.com>
Source record: 98741

On 9 Mar 2004 10:01:04 -0800, wa5bdu@yahoo.com (Nick Kennedy) wrote:

>I see this paper as a variation on a line of reasoning that goes like
>this:
>
>1) A conjugate match results in maximum power delivered to a load, so
>it is good.

It is also a cliche unless another outcome was expected. As there are other types of match, "good" becomes a speculation of value judgements.

>2) A connection where the load has much higher resistance than the
>Thevenin equivalent source resistance results in high efficiency, so
>it is also good.

At this point it is well to point out that there is no expectation of "efficiency" implied or expressed in conjugation. Good follows from application, application does not drive good.

>3) Since (1) and (2) are both good, they must be equivalent to each
>other. Therefore a conjugate match is what it is not. This is an
>apparent contradiction.

"is what it is not" I am the Walrus? Coo-coo ca choo!

Two goods have no inherent relationship. Scratching an itch, and solving world hunger also have no equivalency. Contradictions and correlations can be forced across innumerable topics by this standard.

>4) The contradiction is resolved by postulating a special kind of
>resistance that adds to the source resistance. However, it has no
>physical effect and exists only to resolve the contradiction in (3).

This has descended into the conventional mixing of theories to argue one example. There is no reason to call on any resistance to perform matching for efficiency's sake. There is no reason to enforce efficiency upon a conjugate match.

A Conjugate Match is simply the observation of the inverse Load Impedance presented to it by the source. The quality of that is that the combination of inverse reactances yields a purely resistive solution. Conjugation is an artifice to protect the source from circulating currents and elevated potentials, it has no other purpose.

The Zo Match is not a Conjugate Match although it may be in special circumstances. A Conjugate Match is not a Zo Match although it may be in special circumstances. The Zo Match closely mimics the Thevenin

topology.

The Thevenin Theorem never contained a resistance to later argue its necessity. Thevenin offered a source with an Impedance. An Impedance "may" contain resistance, but it is not a necessity. The argument for dissipationless resistances within the source automatically reject themselves from the Thevenin category through being non-linear. Attempts to re-embrace this linearity are convincing (the flywheel argument of the finals' plate tank); but it does not deny the physical resistance rendering heat that inhabits the source interior.

73's
Richard Clark, KB7QHC

3771. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 00:30:03 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <404E618B.1F6837C5@uci.edu>
Source record: 98743

Dave wrote:
> oh wow, all the way to momentum calculations now.

I don't think we should expect to see any momentum "calculations" from Cecil. He can't even explain how the energy magically reverses direction and heads back toward the load. That's why he always phrases that as a question. The fact is, in a matched system, energy obviously isn't reflected from the load.

73, Jim AC6XG

3772. T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 00:34:43 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2lnujjja1@newshost.mot.com>
Source record: 98745

Yikes! Long wind alert!

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:404e2d2f_3@corp.newsgroups.com...
> Steve Nosko wrote:
> > "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >>100W XMTR---50 ohm coax---x---1/2 WL 450 ohm ladder-line---50 ohm load
> >
> > I don't know from "momentum" of power. If you asking what is going on
> > within the section of ladder line... The easy explanation is that the
waves
> > act such that the two ends look line 50 ohms
>
> It's a pretty simple question. The energy wave reflected from the load

First I must understand where we are looking. I think is is best to
take small steps in the descriptions. (or is this a troll, Cecil) You want
to look at a point on the 450 ohm line, is that correct?

Assuming yes... I think you are saying that we have a 450 ohm line and a 50
ohm load and therefore there is a reflection. Is that where you are?

...pause...

I would rather take one step at a time and stick to the above as the main
discussion, but will comment as follows anyway, so the following may be a
digression.

> possesses energy and momentum, both of which must be conserved.

Again, I do not know what momentum is for an EM wave on coax and don't
believe it is necessary for this discussion. Waves move along the line and
we are trying to come to a common understanding of what happens at the
junctions, I think... As far as conservation is concerned, I assume a
loss-less line.

> There
> is no reflected energy on the 50 ohm coax and therefore no momentum in
> the reflected waves on the 50 ohm coax.

I think you contradicted yourself here. Are you saying that there IS or
IS NOT reflected energy/waves on the 50 ohm section (to the left of the
"--x--"??

I say there is none. It is loaded by the 1/2 wave of 450 ohm line which
presents a 50 ohm appearance. To be honist, I don't think I can remember
what happens at this junction. I think there is a jump in voltage since 450

is greater than 50 - for the forward wave. In any case, the sum result of the forward wave and the reflected wave is such that E/I=50 at this junction. This is just to the right of the "--x--".

> So what changes the direction
> and momentum of the energy wave reflected from the load?

You lost me here. Perhaps you are asking; "If there is a wave reflected at the end with the 50 ohm, back toward the left, how does this power then get absorbed IN that load?" Is this the question?

The wave, in the 450 section, reflected from the load is NOT the power being delivered TO the load, so it does not have to be "changed' to be delivered there. The wave traveling to the right on the 450 ohm section is *significantly* diffeernt that what is absorbed in the load. I'd be hard pressed to give a value since school was some odd...mumble mummble years ago... Perhaps this is a stumbling block. The wave traveling to the right on the 450 section can be much larger than the power delivered to the load. Weird, but true. It has to be if there is some bounced back to the left and still deliver 100W to the load. I'm sure there is some math to show this...reflection coef and all...

73,

--
Steve N, K,9;d, c. i My email has no u's.

3773. Wanted 3 el 20 meter RAI BEAM

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 00:38:05 UTC
From: Josh <xppq@ispwest.com>
Message-ID: <c2lo1h09rh@enews1.newsguy.com>
Source record: 98747

Anyone have a 3 element 20 meter RAI beam for SALE?

xppq@ispwest.com

3774. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 00:49:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d9ns40tccbmcu0dl8v58jvnqkt1gqv2g05@4ax.com>
Source record: 98744

On Tue, 9 Mar 2004 18:01:12 -0600, "Steve Nosko" >Ahhh! Thanks,
Richard. Now I see the essence of the discussion. I believe
>there is an inherent conflict in the terms you have, namely; "delivering
>maximum power" and "without dissipating as much power...as ...the load".

This is an efficiency statement.

> This is an interesting tack, but I don't see the demonstration you refer
>to. I am missing just what it is that gets to the "Loss-less resistance"
>conclusion.
>
>We know that the MPT Theorem says the source and load powers must be equal

It says nothing of the sort. The comparisons are Z based.

>for THAT situation...so. I think (I hope) you agree that in this case, the
>limiting factor for the delivered power is the source's "Internal"
>resistance. Now lets look at a case where the source Z is LESS than the
>load Z.
>
>I will take for a first example (at the risk of being accused of being
>"stuck" in DC) a standard series regulated power supply. (this is the same
>example I described with my "change the load Z to a higher value" example
>earlier.) The supply can be designed to supply many watts, right! Yet they
>have very low output resistances, right!

You started with a Z and ended with an R. As you are confined to a DC
argument that is allowable, but the logic does not extend to an RF
source.

>Lets look here:
>
>1- Is it putting out its "maximum power" when loaded to its rating?

Rating is a marketing issue.

>2- Is it dissipating an amount equal to the load?

Only if the load R equals the internal Ohmic loss.

>3- What is the limiting factor for its output current (what is it that
>allows us to only draw its rated current?)?

Thevenin explicitly describes the source Z as the ratio of open
circuit voltage divided by short circuit current. Substitute R for Z
in this special case.

The internal Ohmic loss defines the total current available. This is
not necessarily the rated current as the system components may not
tolerate the heat even though the current is "available." This is the
distinction of the "marketing."

>SO, are you saying that we have some "Loss-Less Resistance", in this case,
>which equals the load resistance?

You have crossed the line from DC to other less restricted examples.
Your logic will fail at some point. The "Loss-Less Resistance"
cannot avoid Ohmic losses; but through clever engineering, DC supplies
(switchers) can reduce the amount of current through them. If you put
as large of a conventional heat sinking on switchers, their capacity
would rise (that marketing term of "rated"), but then it intrudes on
the quality of switchers for being small (and is a facile response
that belies more complex issues).

If a switcher is 99% efficient, it still dissipates 1% power in heat
from Ohmic loss.

>If we were to put a load on it which equaled the 0.05 ohm output resistance,
>then what situation do we have? Maximum power transfer?

You've switched back (no pun) to the DC argument? I presume so. Can
you envision any other outcome? If we are to allow an infinitely
adaptable source, then this becomes a tediously futile exercise.
However, that is often the argument offered (hence the violation of
Thevenin's requirement for linearity).

>In the above case, the series pass transistor power dissipation ability is
>the limiting factor on the output power of the supply, not the internal
>resistance.

It would be difficult to separate the two wouldn't it? This delves
back into the marketing term of "rated." You can certainly design a
finals deck without a heat sink to power limit it. Anyone can design
for failure to prove that outcome.

The actual, real answer is that the power out is current density
limited at the emitter-collector junction. Nearly all failures of
solid state power designs devolve to melt-down, a catastrophic thermal
failure borne of resistance. The current density is an abstract
expression of the inability of the device to shed heat through another
resistance: thermal resistance which is expressed in degrees per Watt.
If the junction temperature rises to melting through the concurrent
availability of so many Watts - BINGO! Failure. In the parlance of
the wire trade, this is called the fusing current.

> I can make the same case for a switching supply and my "raise
>the supply voltage" example is the same thing.

Only if you neglect heat, sinking, thermal resistance, melt-down and
the host of real concerns.

>SO...?

Hi Steve,

If you care to look at any power transistor operating curves, absolutely NONE run to "rated" capacity. Across the board, they are "de-rated" at the upper limit (observe the dashed lines that clip the maximum region). Like the specification of GainBandWidth, power ratings are mutable against a myriad of considerations, most of which do not allow full blown power.

73's
Richard Clark, KB7QHC

3775. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 00:58:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tkps401mpkbtmfui850lplcoi4m75bvqut@4ax.com>
Source record: 98746

On Tue, 9 Mar 2004 18:34:43 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>Yikes! Long wind alert!
>> >>100W XMTR---50 ohm coax---x---1/2 WL 450 ohm ladder-line---50 ohm load
>> > I don't know from "momentum" of power. If you asking what is going on
>> > within the section of ladder line...
...
>take small steps in the descriptions. (or is this a troll, Cecil)
...
>
>Is that where you are?
>...pause...
...
>Again, I do not know what momentum is for an EM wave on coax and don't
>believe it is necessary for this discussion.
...
> I think you contradicted yourself here. Are you saying that there IS or
>IS NOT
...
> You lost me here. Perhaps you are asking
...
> Is this the question?

This is going to take a looooooooooong time, Steve. Follow your
instincts and accept it only for its entertainment value.

73's
Richard Clark, KB7QHC

3776. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 01:07:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2lpoj$d5l$1@hercules.btinternet.com>
Source record: 98749

> "The new megaphone being deployed to Iraq can operate at 145 decibels
> at 300 yards, according to American Technology, well above the normal
> threshold for pain."

==========

Yet another weapon of mass destruction in the hands of the US military, eh?

All for sake of oil.

3777. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 01:07:32 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <ohqs40lh1pvuksdfqvn64b9gpo1j2qsf9j@4ax.com>
Source record: 98748
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

On Tue, 9 Mar 2004 11:38:26 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>
>"Dennis" <Howdy.Doody@howdydoody.net> wrote in message
>news:c2j1efret1@xuxa.iecc.com...
>> HI,
>>
>> Does anybody have a circuit that will
>> decode the WWVB signal,and output to a clock
>> led circuit?
>> TIA, Dennis
>
>
>http://www.amug.org/~jthomas/wwvb.html

Why not use a computer and an NTP server?

Russ

3778. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 01:16:44 UTC
From: tommyknocker <tomynokr@uucp.hell>
Message-ID: <c2lq9s$6tv$1@xuxa.iecc.com>
Source record: 98751
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Dennis wrote:

> In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
> >
> >
> >Dennis wrote:
> >
> >> HI,
> >>
> >> Does anybody have a circuit that will
> >> decode the WWVB signal,and output to a clock
> >> led circuit?
> >>
> >> TIA,
> >>
> >> Dennis
> >>
> >>
> >Hi,
> >Unless you want to have fun building a clock, there are many such clocks
> >or watches out there. I wear a watch. Very accurate in time keeping.
> >Tony, VE6CGX
> >
>
> Yes, I have one of these clocks also. The thing is, these clocks
> are set 6 times in a 24hr perod by the WWVB signal. The rest of the
> time the time base is an ordinary crystal. I want my clock to be
> set on a more continous basis. This could only happen with the
> continous decoding of the signal. This is how the "professional"
> clocks, such as those made by Spectracom work.
>
> -Dennis

You'll find that most of the schematics on the net for atomic clocks are of the crystal variety-they set once or twice a day with WWVB and the rest of the time use a crystal. You'll have to do some digging to come up with something that does continuous decoding, but I'm sure it's out there.

3779. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 01:21:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2rqs40de1jr8ks4i46ql4tuv4of1cd0p80@4ax.com>
Source record: 98750

On Mon, 08 Mar 2004 15:39:34 +0100, Toni - EA3FYA <ea3fya@hotmail.com>
wrote:

>Hi,
>
>For various reasons I am considering building a trapped dipole
>without traps. Well, not really. I would use pneumatical
>(compressed-air) switches in place of the traps.
>
>What I don't know is if the switches rated for 16A 250V AC will
>stand the voltage at the edge of the antenna when open. Power
>would be 100W, but I wouldn't mind reducing to 50W or even 25W if
>that would make the switches work. Of course I would always
>operate the switches without RF on the antenna. I know normal
>voltages an antenna edges are much higher, but I also think that
>250V working voltage probably means much higher isolation
>voltage. Just don't know how much more.
>
>Thanks for answers / ideas.
>
>Toni - EA3FYA

Hi Toni,

It depends an how wide the switch opens the contact.

As we have exhausted a debate on the Q of an antenna (variously
computed between values of 8 to 16, let's call it 10 for simplicity
and rough guessing); then the potential present at the tips (with
respect to ground) are
Q ï¿½ Vapplied

For 100W applied to 72 Ohms (more rough guessing) presents us with
10 ï¿½ 100V = 1000V

This is not an exact value (ï¿½6dB), but you get the idea. Even with as
wild a figure as that, it should not prohibit you from trying,
especially if you can increase the throw of the switch (to open the
contacts wider).

73's
Richard Clark, KB7QHC

3780. Wire Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 01:34:31 UTC
From: Matthew&Wendy <mapwam@frontiernet.net>
Message-ID: <Hgu3c.1513$YB2.656@news02.roc.ny>
Source record: 98752

I have a simple scanner/shortwave receiver and have recently installed a wire antenna. I have been able to pick up stations over 500 miles away. However, it seems as though the stations are grouped in very narrow bands. Is there a way to make the antenna "look" longer or shorter electronically so that I have a greater range of frequencies? Thanks your help in advance. Matthew

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.605 / Virus Database: 385 - Release Date: 3/1/2004

3781. Re: Wire Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 01:46:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <afss4056fnhegls447dvgpehgatmcdscob@4ax.com>
Source record: 98753

On Wed, 10 Mar 2004 01:34:31 GMT, "Matthew&Wendy"
<mapwam@frontiernet.net> wrote:

>I have a simple scanner/shortwave receiver and have recently installed a
>wire antenna. I have been able to pick up stations over 500 miles away.
>However, it seems as though the stations are grouped in very narrow bands.
>Is there a way to make the antenna "look" longer or shorter electronically
>so that I have a greater range of frequencies? Thanks your help in advance.
>Matthew

Hi Matthew,

There is a certain amount of vagueness in your description. Is a 500
mile range unexpectedly good, or bad? Over what band of frequencies?
How long is the wire? How high is it? Put a tuner between the two
and you kill the scanning ability to some degree, however a tuner may
be necessary for good Shortwave.

For instance, in the Shortwave region, that is not particularly good,
but for VHF that would be gang-busters.

As for the grouping of active signals. What frequencies? It would be
a common observation anywhere across a lot of frequencies, but if you
were worried about Shortwave being deaf from 9.5 to 10 MHz, you would
have a complaint; bump it down between 9 and 9.5 and that would be no
surprise.

73's
Richard Clark, KB7QHC

3782. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 01:47:50 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <atu3c.159080$Xp.717640@attbi_s54>
Source record: 98754

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:7tgs40p6bvm7blc7f0iieq3avkgaqsecqr@4ax.com...
> On Tue, 09 Mar 2004 20:04:46 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
>
> >So Americans dominate this thread and now you have the backing of all
> >American experts that post regularly on this group regarding antennas.
>
> Art, true to my forecast and your character, you dwell on personality
> to perpetuate unsubstantiated claims and to avoid technical discourse.
> Your first reaction is self-condemning. I am not interested in your
> poor opinion of world scientists and engineers. I note you spend very
> little time in correspondence with them here in the group, instead
> choosing to focus on your trivial issues.

Well it is you who attacks not I and I will not turn the other cheek
as would have me do. It is you and the other experts who say all parallel
circuits must be high impedance not I. It is you who refuses to answer the
question posed by Cecil asking if you were aware that even resistance has
inductance. It is you that belittle the idea that one would make an antenna
based on a filter circuit and
ignore the fact that connection lines between lumped circuits actually
radiate. It is you with the support of the other american experts who
belittle the idea of devising an antenna that was not based on wavelength
and I would readily admit that the names on the 'three simple answers'
thread following this one are knoweledgable but in this case they are in
error in supporting your point of contention as they are many times on this
newsgroup when they regularly attack others.
>
> >It is
> >quite easy for a casual reader to run down the list of some of the
posters
> >many of which have written books and articles on antennas that gives
> >legitamacy to your interpretations of science but even if their names are
> >known to many I doubt it will enhance their reputation by their support.
>
> As if I cared....

Well you should, they all support your contention that All parallel circuits
will have a high impedance as radiation is not regarded as a factor. I for
one do not agree with the many experts on that one since they are refering
to a special case as in small filter circuits, it does not apply when
interconnections are taken into consideration. But then they write articles
so they must be right and one of them has a zillion books that he can
extract formulas from.

>
> >You have a tongue for Shakespeare which when spread around loosely may
win
> >debates but it cannot change science even tho
> >Shakespearian literature is where you obtained your degree does provide
> >benefits.
>
> Would I be charged as playing Socrates if I employed the apparently
> Greek word Pathetic? Again, you choose to debate style rather than
> substance. Unfortunately you have even less capacity to go there.
> This continues the observation that you are far more interested in
> personalities than technical discussion.

Well every thing hinges around antennas as far as I am concerned\
Cecil asked a antenna based question of you, that surely was not personal
but you refuse to respond, why?

To your credit you are aware
> of your utter inferiority to challenge one who has command of the
> Queen's English and this no doubt throws chaos into the mix of your
> rejected allegiances.

What rejected allegiances are you refering to

>
> >You and others have been succesfull in debating this
> >as a non issue and parallel circuits must present a high impedance
>
> This was the topic of your own origination, note the subject line
> above as it is entirely your responsibility for its framing. You were
> responded to, to the points offered. It is clear that this forum's
> mandate for the discussion of technical issues holds no interest for
> you.

You are fully are of why I posed the question and that was to force people
to debate on parallel circuits from a scientific point of view. Yes, you
were good at deception in suggesting you were serious this time and I acknow
ledge that you were succesfull,
now you want me to turn the other cheek to you because Americans on this
forum back you up on a technical point which I disagree with.
I told you before that I was English borne and I will stand firm if I am
attacked even if those come from my adopted country.

>
> >I really can't see how we can attract the younger generation to this
hobby
>
> Your vulgar gutter language is no attractive feature by any means.

Jimminy you of all people saying such a thing !

>
> >Nuff said ,for now America is to dominate how science is to be seen but

the
> >next thing is the World to dominate.
>
> Tell that to the Marines. I am not interested in your hate-America

No, I do not hate America I came here by choice and by invitation which included money not an accident of birth (it was an accident wasn't it or did your mother never tell you). America wants people from other countries desperately such that every ten years amnesty is offered to the rate of a million per year for those that enter illegally. Police do not interfere even if a crime is committed unless it is a serious felony . I have met many from Europe who now do the same thing, yes, old Europe also as on the accepted nation list for immigrationis lead by a dozen countries that are non white so it is quicker to get on a plane and come over. This is a free country and immigrants showed their value in Florida during the elections and will do so this time in other states to show their value and thanks for medical care andschooling for their children...all free because America wants them. However I was legal, all travelling expenses paid for including family. Even gave me a green card before I set foot in this land. As with all other immigrant americans I think this is a great country, certainly no complaints from me, my children and my grandchildren. True, immigrants are looked down upon but that happens in all countries but we do vote and have a real impact on this country as we do not have the need for viagra as much as those born here and thus soon will be a majority. Tell it to the servicemen you say, well yes I would even tho it was never said to me when I was in uniform.

> baiting.
>
> 73's
> Richard Clark, KB7QHC

Your turn, I am holding on a point of science and the antenna that I use and will not retreat even tho you appear to be well supported by " experts" on this side of the pond. I suspect that experts in other parts of the World are watching with a smile as reputations
fall.

Art Unwin KB9MZ.....XG from East London but living quite well
over here. Yes the mercedes I like to drive is an old one but I do have a new E type in one of my garages that I take out once a week. Large house and grounds, great pension for engineers from General Electric.. Social Security.IRAs..travels to Europe,.how can I be against America?
And a big plus is my amateur Radio antenna that nobody else has
because you say it is impossible amongst other things.
Eat your heart out as you watch mexican immigrants walk across your yard every day because of where you live. You should have saved your money instead of procrastinating all your life and attacking people if they disagree with you.

3783. Re: Wire Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 02:00:02 UTC
From: Matthew&Wendy <mapwam@frontiernet.net>
Message-ID: <CEu3c.1519$OY2.776@news02.roc.ny>
Source record: 98756

OK, Sorry if I was unspecific. The antenna is about thirty feet long, with one leg at twenty feet. The entire antenna is twenty feet off the ground. The Five hundered mile range is great, but it was an AM station out of North Carolina. The BBC broadcast on 5975 came in great too. But about 100 kilohertz on either side, and I can only pick up locals, within 200 miles. I saw a vertical antenna that with a switch, the operator could change something and make the antenna resonant on different frequencies. Is this possible with a wire antenna?

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.605 / Virus Database: 385 - Release Date: 3/1/2004

3784. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 02:02:12 UTC
From: "Dr. Daffodil Swain" <wa4jm@earthlink.net>
Message-ID: <EGu3c.4703$Cm3.4420@newsread3.news.pas.earthlink.net>
Source record: 98757

Maybe you numb nuts have not figured out, that the FCC doesn't give a crap
about hams.
"thatcher" <thatc4@net.com> wrote in message
news:c2lmq702jcr@enews4.newsguy.com...
> The FCC should be taken to court for failing to do its responsibility.
>
>
>
> Ken Coghill III, WB4ZOH wrote:
>
> > A real "hot button" topic as BPL is here in the city of Manassas, Va
> > and disrupts 10-40m. AMRAD is conducting "tests", amateur radio
> > operators are sending letters to Congressmen, Representatives, City
> > Officials and the FCC.
> >
> > However, as the City receives serious $$$, it will become very obvious
> > the Amateur Radio Service will be ignored.
> >
> > Ken Coghill, WB4ZOH
> > Manassas, VA
> >
> >
> >
> >
> >
> >
> >
> > thatcher wrote:
> >
> >> http://biz.yahoo.com/fool/040303/1078348320_1.html
> >>
> >>
> >> *Motley Fool*
> >> Broadband and Utilities, Oh My
> >> Wednesday March 3, 4:12 pm ET
> >> By Mark Mahorney
> >>
> >> Only a year ago, broadband over power line (BPL) was seen as a
> >> technology with an uncertain future and far from implementation.
> >> Despite early snafus, BPL has ironed out its kinks and is now being
> >> rolled out. Though largely ignored, this is one of the most exciting
> >> events to hit technology news in a long time.
> >>
> >> ADVERTISEMENT

> >>
> >> Considering how long the Internet has been sharing phone lines, it's
> >> taken a long time for power lines to reach the dual-use point. Cable
> >> and DSL Internet service providers have been crossing their fingers
> >> hoping it wouldn't happen.
> >>
> >> It's sneaking up on them just as cable Internet launched a sneak
> >> attack on dial-up providers. Now, the dial-up providers are largely
> >> dependent on phone company partnerships and rural customers who can't
> >> get cable or DSL. But what will become of them if those customers --
> >> which represent a significant portion of the population -- can get
> >> broadband Internet over their power lines? And who would have thought
> >> we may soon be paying our power company for Internet access?
> >>
> >> Yesterday, *Cinergy* (NYSE: CIN
> >> <http://finance.yahoo.com/q?s=cin&d=t> - News
> >> <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
> >> Broadband subsidiary and partner Current Communications are rolling
> >> out the BPL service in the Cincinnati, Ohio area. After testing the
> >> service in a small region, the company is ready to unleash the power
> >> (no pun intended). It claims its service is faster -- more than three
> >> megabytes per second compared with cable's roughly two megs per
> >> second -- and cheaper than cable Internet.
> >>
> >> Test customers have been happy with the service, and there have been
> >> no problems with interference. Furthermore, all that's needed to tap
> >> into it is a $30 HomePlug power line modem, which the company will be
> >> giving away.
> >>
> >> Cinergy isn't the only utility looking at this technology, either.
> >> There are numerous power companies developing the capability or
> >> watching its development closely. Internet start-ups like Current
> >> Communications are waiting in the wings to help the utilities
> >> initiate and manage the service.
> >>
> >> It's a potentially huge revenue source for the utilities, with the
> >> possibility of being a huge revenue drain for the current Internet
> >> providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
> >> <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
> >> <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
> >> Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
> >> <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
> >> <http://finance.yahoo.com/q?s=bls&d=t> - News
> >> <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications*
> >> (NYSE: SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
> >> <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional
> >> dial-ups like *Time Warner's* (NYSE: TWX
> >> <http://finance.yahoo.com/q?s=twx&d=t> - News
> >> <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
> >> *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -

> >> News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying
> >> attention.
> >>
> >> From the look of things, this technology will roll out much faster
> >> than most people expect. I am certainly willing to give it a try if
> >> and when it comes to my area. And I recommend you check with your
> >> local power company to see if it has any plans to implement the
> >> technology. If so, consider taking a good look at both the stock and
> >> the service. It could be the next big thing.
> >>
> >> /What do you think this new technology means for cable companies like
> >> Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
> >> service providers like Time Warner's AOL
> >> <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
> >> other Fools on our discussion boards./
> >>
> >> /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
> >> doesn't own shares of any companies mentioned./
> >>
> >
> >

3785. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 02:04:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <huss4052qsi4orcucoqmer38ob095fci63@4ax.com>
Source record: 98758

On Wed, 10 Mar 2004 01:47:50 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

>Well it is you who attacks not I and I will not turn the other cheek

Yo' Momma!

>as would have me do. It is you and the other experts who say all parallel
>circuits must be high impedance not I.

:-)

>It is you who refuses to answer the
>question posed by Cecil asking if you were aware that even resistance has
>inductance.

Gad, what triviality. Can you or he tell us how much? I won't hold
my breath for that answer of Whining of Minimal Distraction.

> american experts who

Like I said, I am not interested in your hate-America notions.

>> >It is
>> >quite easy for a casual reader to run down the list of some of the
>posters
>> >many of which have written books and articles on antennas that gives
>> >legitamacy to your interpretations of science but even if their names are
>> >known to many I doubt it will enhance their reputation by their support.
>>
>> As if I cared....
>
>Well you should,

And I still don't.

>> This was the topic of your own origination, note the subject line
>> above as it is entirely your responsibility for its framing. You were
>> responded to, to the points offered. It is clear that this forum's
>> mandate for the discussion of technical issues holds no interest for
>> you.
>
>You are fully are of why I posed the question and that was to force people
>to debate on parallel circuits from a scientific point of view.

Then take issue with yourself.

>because Americans on this

More hate-America.

>Your turn, I am holding on a point of science and the antenna that I use and
>will not retreat even tho you appear to be well supported by " experts" on
>this side of the pond. I suspect that experts in other parts of the World
>are watching with a smile as reputations
>fall.

... dreaming in techniclowner and surrender sound.

73's
Richard Clark, KB7QHC

3786. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 02:20:59 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <4ous40piu85efnfecj52ks1o1h5u6nl6jd@4ax.com>
Source record: 98759

On Tue, 9 Mar 2004 20:48:13 -0800, "Newby" <nobody@nowhere.net> wrote:

>
>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>news:c2lpoj$d5l$1@hercules.btinternet.com...
>> > "The new megaphone being deployed to Iraq can operate at 145 decibels
>> > at 300 yards, according to American Technology, well above the normal
>> > threshold for pain."
>>
>Wonder if a set of hearing protectors (like shooters wear) will defeat this
>thing?
>
The best hearing protectors I've seen are in the range of a 30-35 dB
reduction. That would take it from "ears bleeding" down to "10 feet
from jet engine" level.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

3787. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 02:37:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <aevs40h75sevrfpi6rh7t97bseq2dvhtdg@4ax.com>
Source record: 98760

On Wed, 10 Mar 2004 01:47:50 GMT, "aunwin" <aunwin@insightbb.com>
wrote:
>Eat your heart out as you watch mexican immigrants walk across your yard
>every day because of where you live.

This is possibly the most vile piece of white trash talk I have ever
encountered. Both of my neighbors, of mexican heritage, to either
side would take serious offense at your ignorant comments as I
encourage their children to free roam my front and back yards in their
innocent play.

Your loathsome comments belong in the gutter.

I will not offer my standard closing and simply sign,
Richard Clark, KB7QHC

3788. Re: Wire Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 02:51:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ajus405fq21h4jbh3vku906ua5iutq1o5e@4ax.com>
Source record: 98761

On Wed, 10 Mar 2004 02:00:02 GMT, "Matthew&Wendy"
<mapwam@frontiernet.net> wrote:

> OK, Sorry if I was unspecific. The antenna is about thirty feet long, with
>one leg at twenty feet. The entire antenna is twenty feet off the ground.
>The Five hundered mile range is great, but it was an AM station out of North
>Carolina. The BBC broadcast on 5975 came in great too. But about 100
>kilohertz on either side, and I can only pick up locals, within 200 miles. I
>saw a vertical antenna that with a switch, the operator could change
>something and make the antenna resonant on different frequencies. Is this
>possible with a wire antenna?
>

Hi Matthew,

That would have been either a preselector, or a tuner. Such a device
will restrict your scanning capacity by removing signals outside of a
band of frequencies (this is both an asset and downside if you want to
scan VHF/UHF through the tuner). The chief asset, especially when
wire antennas are added to portable radios for shortwave, is that it
will kill local AM stations that will desensitize your receiver
without you knowing it (complex explanation will be skipped here).
Get a tuner (cheapest ham one will do just fine, spend $20 - $30; skip
any that offer meters, you can't use them anyway). This does not mean
it will kill AM stations if you choose to listen to them, you just
need to adjust the tuner to accomplish it.

The antenna sounds fine, and is far better than using a whip. It is
unlikely that there were local signals in the 49 Meter band unless
they were the bible thumpers. If you are new to shortwave, keep in
mind that the same band that is dead now, may be kicking up a storm in
4 hours.

73's
Richard Clark, KB7QHC

3789. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 03:13:02 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <1Jv3c.510773$I06.5676239@attbi_s01>
Source record: 98762

This is great ! One benefit of standing up to the likes of you even tho it is distastfull is that the more you write the more one can see who you really are. You and others have trashed many people over the years and yes nasty comments about jews and other antenna experts. Heck didn't Walter just finish trashing a guy about antennas. (EH antennas was it) Even Roy Lewellen did the same thing until the tables turned on him and he left. Remember how you trashed Chip who talked about fractals, then you trashed some guy on EH antenas.
There was also the guy who advertises a two element antenna ,boy you really trashed him and he left. Not sure why W8TI tom left tho I remember many arguements that ensued regarding his article in QST that many disagreed with. None of these guys are left even tho they had a huge knowledge about antennas so it must be galling to you that someone who you disagree with and are trying to trash is still here, still going like a ever ready battery and is standing up to you regarding a point of science and will not go away no matter how much you wriggle and turn or try to paint derogatory things . Believe me I will hold my ground against you no matter what flowery language you constantly use which is really fractured english. And the so called experts can back you up as much as they want but I know that there are people in this world
reading this thread who are wondering about their education.
Spouting from a book is not enough, if you cannot understand the basics from which a formula is derived from then you are doomed
to repeat conclusions about impedance in areas where they don't apply and it would appear that the so called experts are now fully exposed in the same way they have tried to expose and trash others.
What goes around comes around. To imitate shakespeare
is not enough to present yourself as an expert in technical matters, even I as a learner with respect to antennas can see that. What the World sees regarding all the experts is for themselves to decide.
The technical point at hand is quite clear and has been stated clearly in this thread and I am absolutely positive that others outside of America fully understands where you and others have gone wrong. If it goes to print it will be in RADCOM of the U.K. which has not been contaminated as yet like QST and where I hope to supply names that are cherry picked who resist anything new. That will not include you since you are not seen to be a 'name' in antennas but there are plenty of quotes left to draw upon from the archives.
Your turn Richard, keep writing as it can only be to my benefit
for people to see you for what you are. You could respond to Cecils post however, remember he wants to know if you are aware that even a resister can have inductive qualities. The answer can be found in " As you like it" why are you so embarrased about a simple question? It is just a simple technical question.

Art Unwin KB9MZ....XG

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:huss4052qsi4orcucoqmer38ob095fci63@4ax.com...
> On Wed, 10 Mar 2004 01:47:50 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
>
> >Well it is you who attacks not I and I will not turn the other cheek
>
> Yo' Momma!
>
> >as would have me do. It is you and the other experts who say all parallel
> >circuits must be high impedance not I.
>
> :-)
>
> >It is you who refuses to answer the
> >question posed by Cecil asking if you were aware that even resistance has
> >inductance.
>
> Gad, what triviality. Can you or he tell us how much? I won't hold
> my breath for that answer of Whining of Minimal Distraction.
>
> > american experts who
>
> Like I said, I am not interested in your hate-America notions.
>
> >> >It is
> >> >quite easy for a casual reader to run down the list of some of the
> >posters
> >> >many of which have written books and articles on antennas that gives
> >> >legitamacy to your interpretations of science but even if their names
are
> >> >known to many I doubt it will enhance their reputation by their
support.
> >>
> >> As if I cared....
> >
> >Well you should,
>
> And I still don't.
>
> >> This was the topic of your own origination, note the subject line
> >> above as it is entirely your responsibility for its framing. You were
> >> responded to, to the points offered. It is clear that this forum's
> >> mandate for the discussion of technical issues holds no interest for
> >> you.
> >
> >You are fully are of why I posed the question and that was to force
people

> >to debate on parallel circuits from a scientific point of view.
>
> Then take issue with yourself.
>
> >because Americans on this
>
> More hate-America.
>
> >Your turn, I am holding on a point of science and the antenna that I use
and
> >will not retreat even tho you appear to be well supported by " experts"
on
> >this side of the pond. I suspect that experts in other parts of the World
> >are watching with a smile as reputations
> >fall.
>
> ... dreaming in techniclowner and surrender sound.
>
> 73's
> Richard Clark, KB7QHC

3790. Comet Dual Bander question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 03:21:46 UTC
From: Dan <lists@elp.rr.com>
Message-ID: <i72t40p81oaerd3oh32ebnf9giq7a4kcsn@4ax.com>
Source record: 98763

I have a SBB% Comet mobile dual band antenna.. I have lost the mobile mount so borrowed a friedns Larsen mag mount (239 type).. anyway.. the comet fails badly seems like a dead short. Went to a buddy's house that has a comet SBB@ AND a comet mount.. My SBB% works great in his mount ..

Does anyone know does the comet dual band mobile REQUIRE I use a comet maount??

seems unlikely but we did a number of test.. we see a great report and a difference I would expect between my SBB% (5/8) and his SBB@ (1/4) wave.. so it does work great as long as I use the COmet mount..

can anyone advise??
thanks

3791. Re: Comet Dual Bander question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 03:22:42 UTC
From: Dan <lists@elp.rr.com>
Message-ID: <bf2t40p7h6h16oufgaalcksekja2u6atnf@4ax.com>
Source record: 98764

Note SBB%= SBB5

On Tue, 09 Mar 2004 20:21:46 -0700, Dan <lists@elp.rr.com> wrotd:

>I have a SBB% Comet mobile dual band antenna.. I have lost the mobile
>mount so borrowed a friedns Larsen mag mount (239 type).. anyway.. the
>comet fails badly seems like a dead short. Went to a buddy's house
>that has a comet SBB@ AND a comet mount.. My SBB% works great in his
>mount ..
>
>Does anyone know does the comet dual band mobile REQUIRE I use a comet
>maount??
>
>seems unlikely but we did a number of test.. we see a great report and
>a difference I would expect between my SBB% (5/8) and his SBB@ (1/4)
>wave.. so it does work great as long as I use the COmet mount..
>
>can anyone advise??
>thanks

3792. Re: Wanted 3 el 20 meter RAI BEAM

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 03:30:35 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <vZv3c.92056$ko6.671231@attbi_s02>
Source record: 98765

Josh , there was a heated augument about this antennaa with this group and finally after being trashed the manufacturer left. I don't agree with what they did or said since I had heard that it was of good quality and performed well. Search the archives by using the manufacturers personal name to read how the group man handled him to see if their assertions were correct. As I said earlier I had heard nothing but good about the antenna, its performance and the quality of its assembly which means that hams hold on to them.
Best regards
Art

"Josh" <xppq@ispwest.com> wrote in message
news:c2lo1h09rh@enews1.newsguy.com...
> Anyone have a 3 element 20 meter RAI beam for SALE?
>
> xppq@ispwest.com
>
>

3793. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 03:38:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <j33t40hhe9aasvir4oc2vg0sds1ccef0el@4ax.com>
Source record: 98766

On Wed, 10 Mar 2004 03:13:02 GMT, "aunwin" <aunwin@insightbb.com>
wrote:
Racist and hate comments snipped
>Your turn Richard,

I see no further technical comment coming from you and I am certainly
not going to respond to your hate-America and anti-immigrant comments
any further.

I will point out all errors you post, but I will no longer respond to
your rebuttals.

Richard Clark, KB7QHC

3794. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 03:47:50 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403091947.76460ae@posting.google.com>
Source record: 98767

Why doesn't the ARRL offer BPL people the code portions of amateur
bands.
With removal of the code from exams around the World and the aging of
the hobby
being generous with an offer will help the hobby to survive a bit
longer. If the interference created is not to the common good then BPL
goes out the window, if the interference does NOT occur then the
common good should benefit.
We have to recognise that the hobby is not attracting sufficient new
members as more auguements occur and as computors become the prime
vehicle for communication via forums such as this.
Regards
Art
the bansthatcher <thatc4@net.com> wrote in message
news:<c265ct027k1@enews2.newsguy.com>...
> http://biz.yahoo.com/fool/040303/1078348320_1.html
>
>
> *Motley Fool*
> Broadband and Utilities, Oh My
> Wednesday March 3, 4:12 pm ET
> By Mark Mahorney
>
> Only a year ago, broadband over power line (BPL) was seen as a
> technology with an uncertain future and far from implementation. Despite
> early snafus, BPL has ironed out its kinks and is now being rolled out.
> Though largely ignored, this is one of the most exciting events to hit
> technology news in a long time.
>
> ADVERTISEMENT
>
> Considering how long the Internet has been sharing phone lines, it's
> taken a long time for power lines to reach the dual-use point. Cable and
> DSL Internet service providers have been crossing their fingers hoping
> it wouldn't happen.
>
> It's sneaking up on them just as cable Internet launched a sneak attack
> on dial-up providers. Now, the dial-up providers are largely dependent
> on phone company partnerships and rural customers who can't get cable or
> DSL. But what will become of them if those customers -- which represent
> a significant portion of the population -- can get broadband Internet
> over their power lines? And who would have thought we may soon be paying
> our power company for Internet access?
>

> Yesterday, *Cinergy* (NYSE: CIN <http://finance.yahoo.com/q?s=cin&d=t> -
> News <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
> Broadband subsidiary and partner Current Communications are rolling out
> the BPL service in the Cincinnati, Ohio area. After testing the service
> in a small region, the company is ready to unleash the power (no pun
> intended). It claims its service is faster -- more than three megabytes
> per second compared with cable's roughly two megs per second -- and
> cheaper than cable Internet.
>
> Test customers have been happy with the service, and there have been no
> problems with interference. Furthermore, all that's needed to tap into
> it is a $30 HomePlug power line modem, which the company will be giving
> away.
>
> Cinergy isn't the only utility looking at this technology, either. There
> are numerous power companies developing the capability or watching its
> development closely. Internet start-ups like Current Communications are
> waiting in the wings to help the utilities initiate and manage the service.
>
> It's a potentially huge revenue source for the utilities, with the
> possibility of being a huge revenue drain for the current Internet
> providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
> <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
> <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
> Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
> <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
> <http://finance.yahoo.com/q?s=bls&d=t> - News
> <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications* (NYSE:
> SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
> <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional dial-ups
> like *Time Warner's* (NYSE: TWX <http://finance.yahoo.com/q?s=twx&d=t> -
> News <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
> *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
> News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying attention.
>
> From the look of things, this technology will roll out much faster than
> most people expect. I am certainly willing to give it a try if and when
> it comes to my area. And I recommend you check with your local power
> company to see if it has any plans to implement the technology. If so,
> consider taking a good look at both the stock and the service. It could
> be the next big thing.
>
> /What do you think this new technology means for cable companies like
> Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
> service providers like Time Warner's AOL
> <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
> other Fools on our discussion boards./
>
> /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
> doesn't own shares of any companies mentioned./

3795. Re: Power Converter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 03:50:26 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <6gw3c.1287$E64.376084575@newssvr11.news.prodigy.com>
Source record: 98768

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:24943-404DF768-221@storefull-3254.bay.webtv.net...
> Steve wrote:
> "Chupe` mis huevos."
>
> During the "Tio Paco" (Franco) era in Spain, the story goes that the
> Madrid newspaper printed the picture of a single egg on the front page.
> Underneath was printed: "Donde esta el otro?"
>
> Franco`s officials didn`t think it funny and levied heavy penalties on
> the paper and everyone concerned.

Oh, was Franco like Hitler in that regard, as well?

--
Steve
KI5YG
.

3796. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 03:55:13 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <Bkw3c.531401$na.1311573@attbi_s04>
Source record: 98669

Newby wrote:

> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:c2lpoj$d5l$1@hercules.btinternet.com...
>
>>>"The new megaphone being deployed to Iraq can operate at 145 decibels
>>>at 300 yards, according to American Technology, well above the normal
>>>threshold for pain."
>>
SNIP

> Wonder if a set of hearing protectors (like shooters wear) will defeat this
> thing?
>
>

Huh??

3797. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 04:03:10 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <2sw3c.161982$4o.257821@attbi_s52>
Source record: 98670

Heh I am for immigration that is why I am here. As the immigrtion population gets larger the quicker american polotics will get turned around. But forget that let Cecil know what you understand regarding his question. It is you who is now demanding technical
comunication which delights me but you refuse to respond to Cecils technical question that relates to what is being discussed.
In your absence Richard responded on your behalf but there were assumptions about what you know. Surely you can respond to a simple technical question that falls into your field of expertise.
Sooner or later you will run out of silly stuff and people are going to wonder why you don't respond possibly because your answer
will expose your position with respect to parallel circuits. This thread carries an awfull lot of your position on parallel circuits for people to read.
Justify your position for the rest of the World
Art Unwin KB9MZ...XG and still hanging in there and resisting the trash.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:j33t40hhe9aasvir4oc2vg0sds1ccef0el@4ax.com...
> On Wed, 10 Mar 2004 03:13:02 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
> Racist and hate comments snipped
> >Your turn Richard,
>
> I see no further technical comment coming from you and I am certainly
> not going to respond to your hate-America and anti-immigrant comments
> any further.
>
> I will point out all errors you post, but I will no longer respond to
> your rebuttals.
>
> Richard Clark, KB7QHC

3798. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 04:25:53 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <INw3c.162071$4o.259694@attbi_s52>
Source record: 98671

No it is not me, it was you who commented about immigrants walking across your yard when you referred to me as some sort of immigrant when I disagreed with you in the past. You live thousands of miles away from me and I have not been to your State so that information was given to me by you or possibly passed as a second hand comment of you by one of your friends on the air. I have a large amount of mexicans and other nationalities living on my road and they are all doing well via the performance of hard work and their numbers have swelled in the thirty five years that I have lived in this community where they are welcome. We also have enough Indians that live here to support
a full league for playing cricket which comprises of 100 plus young men many of which are temporary computor engineers for a local company. To be able to watch a game of cricket in the Midwest is just terrific as is being taken care of by the Indian doctors that abound. All of these immigrants are to the benefit of America and is why we are willing to give amnesty to so many. And you know you would be hard put to match the supreme technical knowledge that immigrants bring to this country especially since we now have to export jobs to find people who are capable. And you know many of the immigrants are placed into the military and fight for us on foreign shores. One of the american bases I visited a few years ago in Germany had a whole block of mexicans as residents in uniform which was not to shabby.
Art Unwin KB9MZ......XG...still hanging in there and resisting being trashed on a technical issue.
Your turn to show what you are made of to add to your description already revealed.
"Richard Clark" <kb7qhc@comcast.net> wrote in message news:aevs40h75sevrfpi6rh7t97bseq2dvhtdg@4ax.com...
> On Wed, 10 Mar 2004 01:47:50 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
> >Eat your heart out as you watch mexican immigrants walk across your yard
> >every day because of where you live.
>
> This is possibly the most vile piece of white trash talk I have ever
> encountered. Both of my neighbors, of mexican heritage, to either
> side would take serious offense at your ignorant comments as I
> encourage their children to free roam my front and back yards in their
> innocent play.
>
> Your loathsome comments belong in the gutter.
>
> I will not offer my standard closing and simply sign,
> Richard Clark, KB7QHC

3799. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 04:32:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404e9aa6_5@corp.newsgroups.com>
Source record: 98672

Jim Kelley wrote:
> I don't think we should expect to see any momentum "calculations" from
> Cecil. He can't even explain how the energy magically reverses
> direction and heads back toward the load.

It's not magic and is explained on the Melles-Groit web page at:

http://www.mellesgriot.com/products/optics/oc_2_1.htm

Here's a quote: "Clearly, if the wavelength of the incident light and the thickness of the film are such that a phase difference exists between reflections of p, then REFLECTED WAVEFRONTS INTERFERE DESTRUCTIVELY, and overall reflected intensity is a minimum. If the two reflections are of equal amplitude, then this amplitude (and hence intensity) minimum will be ZERO."

Destructive interference stops the energy flow and momentum of the two reflected waves toward the source (at the Z0-match point 'x' below.

Continuing: "In the absence of absorption or scatter, the principle of conservation of energy indicates all "lost" reflected intensity will appear as ENHANCED INTENSITY (constructive interference) in the transmitted beam" (traveling toward the load).

The energy involved in the destructive interference is not lost and appears as constructive interference in the opposite direction. That energy has changed direction and had its momentum reversed.

> The fact is, in a matched system, energy obviously isn't reflected from the load.

No reflections from the load? Neglecting losses, I calculate 178 watts reflected from the load and 278 watts of forward power on the 450 ohm feedline in the following matched system.

100w XMTR---50 ohm feedline---x---1/2WL 450 ohm feedline---50 ohm load
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3800. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 04:43:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c37t409r74hba8340ec2gcvah282r3294v@4ax.com>
Source record: 98673

On Wed, 10 Mar 2004 04:25:53 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

>No it is not me, it was you who commented about immigrants walking across
>your yard

Art,

You are a liar.

Richard Clark, KB7QHC

3801. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 04:44:48 UTC
From: richardharrison@webtv.net
Message-ID: <13012-404E9D40-627@storefull-3256.bay.webtv.net>
Source record: 98676

Steve Nosko wrote:
"I am missing just what it is that gets to the "Loss-less resistance" conclusion."

If part of the source resistance were not lossless, efficiency would be limited to 50%.

Fact is, Class-C amplification frequently is 2/3 or 66.6% efficient. Twice the power is delivered to the load as is lost in the source.

If we deliver 1000 watts into 50 ohms, we have 224 volts and 4.47 amps as a load.

Our source is identical,, 224 volts and 4.47 amps. Its volts to amps is the same ratio, but its loss is not the same power as the power delivered to the load because part of the source resistance is lossless because it is the product of interrupted energy delivery, not energy conversion into heat.

With 2/3 efficiency, when we have 1000 watts into the load, we have 500 watts lost in the source.

500 watts lost means only 1/2 the dissipative resistance as we have resistance in the load, and thus the source resistance consists of 25 ohms of dissipative resistance and 25 ohms of non-dissipative resistance. The total source resistance is 50 ohms which matches the load resistance.

A match allows maximum power transfer.

The less than 360 degrees of energy supplied to the load makes 25 ohms of dissipationless resistance as a part of our 50-ohm source in our example.

Keep working on the idea and eventually you may get the model.

Best regards, Richard Harrison, KB5WZI

3802. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 04:46:06 UTC
From: Biz WD=?ISO-8859-1?B?2A==?=HCO <wd0hco@ev1.net>
Message-ID: <c2m6ie$t0m$1@xuxa.iecc.com>
Source record: 98675
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Here is a nice circuit:

http://users.viawest.net/~aloomis/seistime.htm

This guy has info on kits for WWV, CHU and GPS systems:

http://www.pacificsites.com/~brooke/timefreq.shtml

Enjoy - Biz WD&#65533;HCO

3803. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 04:48:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404e9e38_5@corp.newsgroups.com>
Source record: 98674

Steve Nosko wrote:
>>>>100W XMTR---50 ohm coax---x---1/2 WL 450 ohm ladder-line---50 ohm load

> Assuming yes... I think you are saying that we have a 450 ohm line and a 50
> ohm load and therefore there is a reflection. Is that where you are?

Yes, there are reflections on the 450 ohm ladder line and none on the 50
ohm coax.

>>There
>>is no reflected energy on the 50 ohm coax and therefore no momentum in
>>the reflected waves on the 50 ohm coax.
>
> I think you contradicted yourself here. Are you saying that there IS or
> IS NOT reflected energy/waves on the 50 ohm section (to the left of the
> "--x--"??

No contradiction. There's no reflected energy on the 50 ohm coax because
those two reflections are cancelled at the Z0-match point 'x'. They are
equal in magnitude and opposite in phase.

>> So what changes the direction
>>and momentum of the energy wave reflected from the load?
>
> You lost me here. Perhaps you are asking; "If there is a wave
> reflected at the end with the 50 ohm, back toward the left, how does this
> power then get absorbed IN that load?" Is this the question?

No, there is 178 joules/sec rejected by the load on the 450
ohm line. That energy possesses direction and momentum toward the source.
What reverses the direction and momentum of that reflected energy?

> The wave, in the 450 section, reflected from the load is NOT the power being
> delivered TO the load, so it does not have to be "changed' to be delivered
> there.

There is 100 joules/sec traveling to the right and none to the left on the 50 ohm
coax. There is 278 joules/sec traveling to the right and 178 joules/sec to the left
on the 450 ohm ladder-line. How does the rearward traveling 178 joules/sec, rejected
by the load, get turned around and join the forward traveling 100 source joules/sec
in order to add up to 278 joules/sec of forward power on the ladder line that is
incident upon the load?

It's a simple question: How does energy rejected by the load become energy incident
upon the load?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3804. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 04:48:13 UTC
From: Newby <nobody@nowhere.net>
Message-ID: <104st6tjoh603ee@corp.supernews.com>
Source record: 98755

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c2lpoj$d5l$1@hercules.btinternet.com...
> > "The new megaphone being deployed to Iraq can operate at 145 decibels
> > at 300 yards, according to American Technology, well above the normal
> > threshold for pain."
>
> ==========
>
> Yet another weapon of mass destruction in the hands of the US military,
eh?
>
> All for sake of oil.
>
>
Wonder if a set of hearing protectors (like shooters wear) will defeat this
thing?

3805. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 04:56:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404ea047_5@corp.newsgroups.com>
Source record: 98677

Gary S. wrote:
> The best hearing protectors I've seen are in the range of a 30-35 dB
> reduction. That would take it from "ears bleeding" down to "10 feet
> from jet engine" level.

The article said that even with fingers in the ears, a migraine-like
headache is likely.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3806. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 05:42:22 UTC
From: dplatt@radagast.org
Message-ID: <104talugntv2e47@corp.supernews.com>
Source record: 98678

>> The best hearing protectors I've seen are in the range of a 30-35 dB
>> reduction. That would take it from "ears bleeding" down to "10 feet
>> from jet engine" level.
>
>The article said that even with fingers in the ears, a migraine-like
>headache is likely.

The military has also experimented with high-amplitude infrasound.
Hearing protectors don't help a bit, apparently. The results of
exposure are unpleasant, to say the least. Biggest drawback seems to
be that it's very difficult to shield the operator and other nearby
"friendlies" - infrasound is highly nondirectional.

A Google search on "military infrasound weapon" turns up some
interesting tidbits.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3807. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 05:46:09 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <404EABBD.6010005@get.lost>
Source record: 98679
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

Tony P. wrote:

> We really need to fight this and make them do the right thing. And it's
> a bit like un-ringing the bell. There are a whole lot of transceivers
> out there that put out anywhere from 50W to 200W right out of the box.
> And a whole lot more amps that kick up to the 1.5KW range. Granted, the
> FCC knows who and where every ham in the U.S. happens to be, but they
> don't know exactly what gear you've got do they? I mean I'm an extra
> without an HF rig right now.
>
> And when you think about it, a properly placed 5W transmitter will do
> stuttering wonders for BPL.
>
> BPL needs to be killed and pronto.

The FCC tune has already changed. Read the article at:

http://www.arrl.org/news/stories/2004/03/09/1/?nc=1

Notice the FCC statement "...Powell responded to the question by saying
the FCC would not let BPL interfere with critical services."

Now the protection appears to have migrated to "critical" services only,
and the burden of proof is thus shifted to amateur radio to show how our
service is "critical" and worthy of protection against the
best-thing-since-sliced-bread BPL.

And they are about to lock up a goddamn housewife while these vultures
roam unimpeded...

73 ... WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

3808. FS 19 Strand 1/4" OD All Copper Antenna Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 05:50:10 UTC
From: rfpexec@yahoo.com
Message-ID: <676011a0.0403092150.44735f34@posting.google.com>
Source record: 98680

I have 90 feet of NEW 19 strand 1/4" OD all copper antenna wire listed on eBay.

Click here to see a picture of it:
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3083121559

If you have any questions, please email me.

Thanks,

Bill

3809. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 06:12:48 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <Aly3c.532640$na.1325605@attbi_s04>
Source record: 98681

But Richard you have called me that many times. I am fairly sure that the comment was made by you on this very forum. And this forum has archives!. If you didn't comment about mexicans walking across your yard then somebody posted under your name.
Calling me a liar doesn't phase me any more as it is a tactic that you often use when placed into a corner. Now on this technical thing just to remind you The Q formula supplied regarding filter circuits does not include radiation factors, it also assumes that connecting lengths are absent (which would normally radiate)
Now my antenna is based on a parallel circuit such as a bandpass filter which means the connections are such that they do radiate. This must be taken into account if you trot out the normal Q formula espoused in books regarding various filter circuits. This can void what you state regarding parallel circuits and high impedance statements.In fact it doesnt have to be a filter type circuit to invalidate your position, I would imagine that many items placed in any parallel circuit would affect it simpedance
but I will stay on track with regard to your statements.
It is for this reason that Cecil asks if you are aware that even resisters have inductive properties which is a reasonable technical question based on what you have posted. The antenna that I have is based on a bandpass parallel circuit and is used for
160 metres and has a band pass of around 7 Khz which is moveable. This antenna offers a reasonable impedance which does not require an additional matching circuit so you call me a liar again because of your failure to understand what the formula for Q was founded upon when dealing with those small filter circuits to which the formula accompanies. That the so called antenna experts on this group agrees with you does not phase me a bit unless you come up with something completely new in an answer to Cecil. I am sure the experts will give you advice on what to say if you ask them as there is a definite conflict from this group with the rest of the World. You are welcome to work 160 metres on my antenna for yourself and measure anything you want
IF you include a search method to reveal this high impedance which apparently cannot be avoided and thus be able to call me a liar to my face when you finally prove your position .Surely that will give you some satisfaction in finally placing my claim into a trash can and be able to tell the World that your technical assertions were proved to be correct. But then you could answer
the question posed to you by another poster and achieve the same thing. So call me a lier or anything that you want, the more comments you make helps me to expose you for what you are.
I am not going away for fear of being trashed over a technical point regardless of how many antenna experts support your position. because of a formula that is in a book.

Still going, it must fraustrate you that someone who you are attempting to trash has not gone away as others have done when faced with attack. I am hoping for some gutter language to break loose as in the past so keep posting and help me out.
Art Unwin...KB9MZ.....XG, yes and also an alien from another country and paid well to come here and partake in the American dream which rewards hard work well where words only do not get the job done.
Good night, will check back tomorrow to check out the language that surely will come out eventually so all can read for themselves..

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:c37t409r74hba8340ec2gcvah282r3294v@4ax.com...
> On Wed, 10 Mar 2004 04:25:53 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
>
> >No it is not me, it was you who commented about immigrants walking across
> >your yard
>
> Art,
>
> You are a liar.
>
> Richard Clark, KB7QHC

3810. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 06:27:08 UTC
From: richardharrison@webtv.net
Message-ID: <3329-404EB53C-230@storefull-3251.bay.webtv.net>
Source record: 98682

Cecil, W5DXP wrote:
"It`s not magic and is explained on the Melles-Groit web page---. (how the energy magically reverses direction and heads back toward the load.)

I agree. It isn`t magic. Optical examples are good because we can see reflections.

I think we have impedances which are inherent from the physical and electrical characteristics that describe the path the electrical energy takes. The path enforces the voltage to current ratio called impedance.

First example is Zo. Second example is 377 ohms of free-space. Third example is resistor type resistance. Resistance is a property based on configuration, dimensions, material, and temperature which make a certain voltage to current ratio, which is measured in ohms. One ohm is the resistance at zero degrees C of a uniform column of mercury 106.300 cm long and weighing 14.451 grams. One volt across a resistor of one ohm causes a current of one ampere.

A wave travels down a transmission line and it consists of a traveling electric field and an associated traveling magnetic field. Relative strengths of the electric and magnetic fields on a practical uniform transmission line are forced into a ratio Zo which is the square root of the ratio of the inductance per unit length divided by the capacitance per unit length. Zo is measured in ohms.

If the line is terminated in an impedance other than Zo, one of the two fields is in limited supply as compared with its travel partner. As the termination only accepts energy in its fixed ohms ratio of voltage to current, surplus energy in the ample field is all rejected and reflected as it has nowhere else to go other than to reverse its course.

The reflected wave must conform to Zo the same as the incident must.

Seems to me there`s no magic. The waves just do what they must.

Best regards, Richard Harrison, KB5WZI

3811. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 07:00:36 UTC
From: "Eric F. Richards" <efricha@dim.com>
Message-ID: <c2meekrhd1@xuxa.iecc.com>
Source record: 98683
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

What I did is use a GPS-disciplined receiver to give me a highly accurate 10 MHz standard. The receiver costs $250 from www.buylegacy.com but you'll end up paying (way too much) for a power supply/line lump and the antenna. I also spent money on software to use with it on my win2k box.

Every 10 minutes that software updates a web page with the sky view and how the high-grade crystal oven is functioning, including estimated error over 24 hours if it loses contact with the GPS satellites.

http://www.dim.com/~efricha/GPS/

--
Eric F. Richards, efricha@dim.com
"Nature abhors a vacuum tube." -- J. R. Pierce, Bell Labs, c. 1940

3812. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 07:20:11 UTC
From: Toni <post_to_usenet@hotmail.com>
Message-ID: <55ft40tnpru419rcec29vku6liu35dkv2b@4ax.com>
Source record: 98684

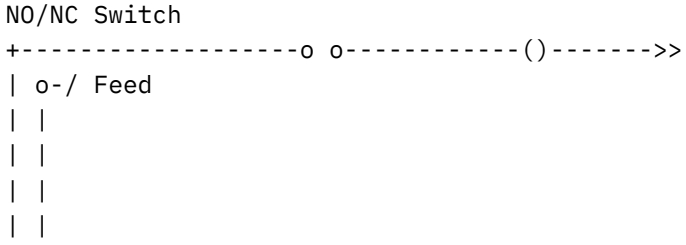
En Richard Clark va escriure en Wed, 10 Mar 2004 01:21:39 GMT:

>On Mon, 08 Mar 2004 15:39:34 +0100, Toni - EA3FYA <ea3fya@hotmail.com>
>wrote:
>
>>Hi,
>>
>>For various reasons I am considering building a trapped dipole
>>without traps. Well, not really. I would use pneumatical
>>(compressed-air) switches in place of the traps.
>>...
>>I know normal
>>voltages an antenna edges are much higher, but I also think that
>>250V working voltage probably means much higher isolation
>>voltage. Just don't know how much more.
>>
>>Thanks for answers / ideas.
>>
>>Toni - EA3FYA
>
>Hi Toni,
>
>It depends an how wide the switch opens the contact.
>
>As we have exhausted a debate on the Q of an antenna (variously
>computed between values of 8 to 16, let's call it 10 for simplicity
>and rough guessing); then the potential present at the tips (with
>respect to ground) are
> Q ï¿½ Vapplied
>
>For 100W applied to 72 Ohms (more rough guessing) presents us with
> 10 ï¿½ 100V = 1000V
>
>This is not an exact value (ï¿½6dB), but you get the idea. Even with as
>wild a figure as that, it should not prohibit you from trying,
>especially if you can increase the throw of the switch (to open the
>contacts wider).

Thanks Richard. I was already thinking nobody would bother to
answer.

Your point about Q is a good one. I was already thinking on how
to lower the Q for better bandwidth -cage dipole or similar- but
I had not thought it also reduces voltages.

Aside, I have been trying several options with the free version of EZNEC replacing the open contacts with 1MOhm loads. The apparently easier and safest way to go is not switching at the very edge but at some 70% of the element. This both reduces a lot the voltage that the switch has to stand (to ~200V) and will allow (I guess) for easier band trimming.



By letting the edges hang it also better approaches the 50 Ohm of the line. I know this reduces a bit the gain, but in a city lot where the main problem is RX noise and the second is space on the roof this is not very important.

73's
Toni - EA3FYA

3813. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 09:17:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <memt40tf6c0f8gja784lgel02pf11rr1cb@4ax.com>
Source record: 98685

On Wed, 10 Mar 2004 08:20:11 +0100, Toni <post_to_usenet@hotmail.com>
wrote:

>Thanks Richard. I was already thinking nobody would bother to
>answer.

Morbid debates (flaming) have a way of captivating other's attention.

>Your point about Q is a good one. I was already thinking on how
>to lower the Q for better bandwidth -cage dipole or similar- but
>I had not thought it also reduces voltages.

Hi Toni,

You have to be careful about interpreting switch ratings. They are
almost always referenced to a resistive load at DC or low frequency
AC. The 250V specification presumes you are switching a live circuit,
and the specification is more concerned with the arc that will be
developed breaking the circuit. The opening contacts will try to
maintain a current with a plasma until you get to the extinguishing
potential (if ever). This current causes point erosion with metal
migrating from one switch face to the other (a pit in one, a point on
the other). This worsens the problem because of the sharp point
developed with reduced spacing.

The simple solution to this is to change the switch setting when your
transmitter is not keyed. It thus becomes a problem of that same
contact separation distance being sufficiently wide so that an arc
does not develop and jump the gap when you key down.

73's
Richard Clark, KB7QHC

3814. 20:1 Balun Help FT240-67 Core

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 10:57:08 UTC
From: Greg <SPAM-qrp73@talk21.com>
Message-ID: <404ef404_1@news.iprimus.com.au>
Source record: 98686

I need to wind a 20 to 1 Balun on a ft240-67 core. I need it for a terminated broadband antenna.

Can anyone suggest a winding format. I need it for 160m through 10, 1000 ohms to 50.

I have used a balun program but not really sure if its right. The program suggested quadrifla at 20 turns, is this about right.

Thanks
Greg

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.614 / Virus Database: 393 - Release Date: 05/Mar/04

3815. Re: 2.4 GHz waveguide/horn antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 11:11:13 UTC
From: Jeppe <no@spam.com>
Message-ID: <lest40p99463d83qmb7d5kbn9knn43hsj6@4ax.com>
Source record: 98687

On Tue, 9 Mar 2004 14:46:46 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:
>There is no requirement on how small the spacing of a transmission line
>can be as long as it doesn`t short where you don`t want it to short.
>There is no abrupt minimum spacing for the small dimension of a
>waveguide either. As in the longer dimension of the waveguide
>cross-section, the attenuation rises as the guide narrows, but it does
>not cut off propagation down the guide at 1/4 wavelength as the longer
>dimension does at 1/2-wavelength.
>
>I don`t have a catalog at hand but it seems to me that rectangular
>guides are about twice as wide as they are tall. This ratio has proved
>to work very well.

Tnx a lot for your reply Richard

I have no in-depth knowledge of the physics/mathematics involved but I
think I have gathered by now a meaningfull understanding of how wave
guides work and the importance of their dimensions.

So my problem is really mostly that I am trying to guess how close the
tip of the 1/4 wavelength probe / antenne rod can be to the opposite
wall of the wave guide - without "detuning" the probe / affecting the
SWR in a detrimental way.

As I wrote I have no measuring equipment. I just disassembled the
dipole antenna of a 30-Euro Belkin Wireless USB adapter and inserted
the 1/4 stub into a cardboard/aluminium-foil horn antenna. That way I
do not have to solder anything and there is no extra transmission wire
loss. Crude electronics? I dare say it is. But it helps me share an
internet connection with a friend living half a block away. And it is,
of course, kind of interesting for an old radio amateur...

Jeppe

3816. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 11:25:59 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403100325.4190b36a@posting.google.com>
Source record: 98688

"aunwin" <aunwin@insightbb.com> wrote in message
news:<1Jv3c.510773$I06.5676239@attbi_s01>...
> This is great ! One benefit of standing up to the likes of you even tho it
> is distastfull is that the more you write the more one can see who you
> really are. You and others have trashed many people over the years and yes
> nasty comments about jews and other antenna experts.

Art, that is just plain BS.

Heck didn't Walter just
> finish trashing a guy about antennas. (EH antennas was it)

No, he just pointed out the guy is full of BS.
Even Roy
> Lewellen did the same thing until the tables turned on him and he left.

No, I suspect he got tired of beating his head against the wall trying
to expose BS.

> Remember how you trashed Chip who talked about fractals,

He didn't trash Chip. He just pointed out that certain aspects of his
claims are basically BS. Actually, I think Steve Best was the leading
"thug" in this case.

> then you trashed
> some guy on EH antenas.

EH antennas? Do you think the claims applied to EH antennas are true?
Yes or no?

> There was also the guy who advertises a two element antenna ,boy you really
> trashed him and he left.

I don't know about this guy, but if he were trashed on this group,
there was probably a valid scientific basis for it.

Not sure why W8TI tom left tho I remember many
> arguements that ensued regarding his article in QST that many disagreed
> with.

I suspect same reason as Roy...Got tired of the brick marks on his
head from beating his head against the wall trying to expose BS.

None of these guys are left even tho they had a huge knowledge about
> antennas

OK, you say these two guys have a huge knowledge base. "Which I agree
with"

What was the conclusion of their study of your antenna plans? Did you
agree with them? Or did you shun their advice, and claim they were
wrong? Yes or no will do.. This is not trick question.

>so it must be galling to you that someone who you disagree with and
> are trying to trash is still here, still going like a ever ready battery and
> is standing up to you regarding a point of science and will not go away no
> matter how much you wriggle and turn or try to paint derogatory things

No I suspect he thinks it's about as funny as I do. I actually live to
read your threads. Best source of entertainment since the comedy
channel.

> . Believe me I will hold my ground against you no matter what flowery
> language you constantly use which is really fractured english.

We don't doubt that. You do seem to have fortitude.

> And the so
> called experts can back you up as much as they want but I know that there
> are people in this world
> reading this thread who are wondering about their education.

And yours also I suspect.

> Spouting from a book is not enough, if you cannot understand the basics from
> which a formula is derived from then you are doomed
> to repeat conclusions about impedance in areas where they don't apply and it
> would appear that the so called experts are now fully exposed in the same
> way they have tried to expose and trash others.

Right....Art, Richard Harrisons posts were quite clear to *most*. He
also provides references, which you seem to dislike for some reason.
You seem to dislike that he quotes from books often. Myself, I'm glad
he does. That way people can study the appropriate material and decide
for themselves.
The same applies to Richard Clarks posts. They were very clear to
most.
But you seem to believe his whole point of replying to *your*
questions was just another exercise of molesting poor ole
Art...Pitiful...

> What goes around comes around. To imitate shakespeare
> is not enough to present yourself as an expert in technical matters, even I
> as a learner with respect to antennas can see that.

He obviously knows more than you do. In spades. But as a "learner
with respect to antennas", you insist on arguing with him and telling
him he's obviously full of BS. This could apply to many of the other
vanished posters also...
Do you see a pattern here?

> What the World sees
> regarding all the experts is for themselves to decide.

What do the "experts" have to do with it? The world only cares if the
antenna works as claimed or not.

> The technical point at hand is quite clear and has been stated clearly in
> this thread and I am absolutely positive that others outside of America
> fully understands where you and others have gone wrong.

Right...

If it goes to print
> it will be in RADCOM of the U.K. which has not been contaminated as yet like
> QST and where I hope to supply names that are cherry picked who resist
> anything new.

I don't resist anything new. I just resist anything new that is
obviuosly BS.
The EH antenna is a prime example. If you want to join this
illustrious group, be my guest. I won't cut you any more slack than I
do the EH guys. The end results won't be pretty. I imagine the EH guys
hate my guts being I dis their masterpiece of blunder. I would also
add deception, but like you and your *program*, I think they are
equally convinced what they have actually works as they claim.

> That will not include you since you are not seen to be a
> 'name' in antennas but there are plenty of quotes left to draw upon
> from the archives.

Maybe he should start selling "Clarksticks"....Would he be real to you
then?

> Your turn Richard, keep writing as it can only be to my benefit
> for people to see you for what you are.

Quite true...:/

So lets see....Who will have the funniest retort for me to read
tommorow morning?
I'm betting on you Art. Don't let me down.
Let the races begin....Ready, steady, GO!!!
MK

3817. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 11:42:53 UTC
From: Jeppe <no@spam.com>
Message-ID: <4out401p7guk25p3a4e1easstmssjogf2b@4ax.com>
Source record: 98689

On Tue, 09 Mar 2004 15:48:19 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>"The new megaphone being deployed to Iraq can operate at 145 decibels
>at 300 yards, according to American Technology, well above the normal
>threshold for pain."

Not only that. It will produce permanent hearing loss in less than a
second on at least 50% of the people exposed.

But, of course, this contraption had to come sooner or later in a
country that authorizes the use of electrical torture equipment in
prisons and court rooms (i.g. the so-called "stun belt")

I am glad that those peculiar Americans are not teaching my country
democracy yet.

The safety limit for noise is 85 dBa (EU) / 90 dBa (US) with 8 hours
exposure. The relationship between exposure time and sound energy is
inversely proportional. The safety limit for impulse noise is 140 dBa.

Jeppe

3818. Mobile antenna for 1296 MHz?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 12:02:29 UTC
From: tad danley <nospam@atsbcglobal.net>
Message-ID: <ptD3c.27742$PE4.2866@newssvr24.news.prodigy.com>
Source record: 98690

I'm looking for a commercial mobile antenna (vertical) for 1296 MHz.
Would prefer something with a little gain over a 1/4 wave, but I don't
want anything taller than my 1/4 wave for 2 meters and I don't need
anything that is multiband. Something like a base loaded 5/8 wave or
even 5/8 over 5/8 would be fine.

Everything I've seen on the commercial market is too tall for my
application and has too much gain, or is too tall because it is multiband.

Thanks in advance and 73,

--
* Do NOT use Reply *

Reply to K3TD via arrl dot net

Tad, K3TD

3819. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 12:16:59 UTC
From: Jeppe <no@spam.com>
Message-ID: <ll1u405arqtsr2mgsrk3f33p7qivt36p45@4ax.com>
Source record: 98691

On Wed, 10 Mar 2004 12:42:53 +0100, Jeppe <no@spam.com> wrote:
>The relationship between exposure time and sound energy..

Sorry, it it sound effect, not energy.

Jeppe

3820. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 12:56:56 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <104u4at3vpl0r77@corp.supernews.com>
Source record: 98692

"Bill Turner" <noway@nohow.com> wrote in message
news:mrrt401jukfaf4nftih5fs9v9hlseb2nb8@4ax.com...
> On Wed, 10 Mar 2004 01:07:31 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >All for sake of oil.
>
> --
>
> Could be worse... what if it were for the sake of religion?
>
> --
> Bill, W6WRT
> QSLs via LoTW
>
It is; Awl and Jeezus!
Its Tha Crusades!!
Got any 30 weight??

Say hallelulah!!

H.
NQ5H

3821. Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 14:04:26 UTC
From: jaroslavlipka@msn.com
Message-ID: <d7855f42.0403100604.1bfb2a63@posting.google.com>
Source record: 98693

Hi Art

it is my experience that people with the greatest mastery of
the queen's english use it with great effect to deflect questions and
to avoid giving straight answers,and to change the subject without you
realising that they have done so. Politicians and Richards 1and 2
being good examples. What i have witnessed going on in your last
couple of threads has not led me to change my opinion.

Your tenacity and conviction in the face of the opposition on
this group is admirable. Stick to your guns, for what it is worth my
money is on you.

Jaro.

3822. Radial Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 14:12:09 UTC
From: Mike Coslo <mjc5@psu.edu>
Message-ID: <404F2239.9020603@psu.edu>
Source record: 98694

I'm getting ready to install my tree mounted 80 m vertical now that the ground is thawing.

It will be a 1/4 wave vertical for 80 meters.

I have a question regarding the radials I'll be putting out. I was planning on using solid #12 copper, and was going to lay out about 500 feet total of radial.

Am I better off to use fewer and longer, or shorter and more? I'm inclined toward 10 50 foot radials. I have heard opposing views on the "proper" length of radials. (I'm assuming that longer and more would be much better, but I have some practical considerations here)

- Mike KB3EIA -

3823. Re: 2.4 GHz waveguide/horn antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 14:47:27 UTC
From: richardharrison@webtv.net
Message-ID: <6875-404F2A7F-6@storefull-3258.bay.webtv.net>
Source record: 98696

Jeppe wrote:
"So my problem is really mostly that I am trying to guess how close the tip of the 1/4 wavelength probe antenna rod can be to the opposite wall of the wave guide - without "detuning" the probe / affecting the SWR in a detrimental way."

I don`t know, so I`m glad you asked the question. This is a good newsgroup and I`d wager that someone will provide the answer. It`s been a long time since I worked with microwaves and then it was with commercial equipment.

My first thought was that the open-circuit end of a probe has an energy about-face at its end which produces a null. Then out of curiosity I went to my 3rd edition of the RSGB VHF-UHF Manual where I found tuning adjustments made by adjusting depth of insertion of probes into cavities and waveguides. There is much practical information in the RSGB Manual but the microwave is mostly centered on 10 GHz. That`s OK because most of it scales to your frequency of interest.

Best regards, Richard Harrison, KB5WZI

3824. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 14:47:54 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040310094754.08817.00001246@mb-m13.aol.com>
Source record: 98695

>The
>apparently easier and safest way to go is not switching at the
>very edge but at some 70% of the element.

Why do you want use pneumatic switches to disconnect part of the antenna?
Why not use the LC traps? They provide "automatic" switching.

Yuri, K3BU

3825. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:06:31 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040310100631.08817.00001247@mb-m13.aol.com>
Source record: 98697

I just read this quote:

18. Don't argue with an idiot; people watching may not be able to tell
the difference.

HiH

3826. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:16:35 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <24cu40pjeepsnmuumtvdjbrk109dei9d28@4ax.com>
Source record: 98700

On Wed, 10 Mar 2004 01:07:31 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> "The new megaphone being deployed to Iraq can operate at 145 decibels
>> at 300 yards, according to American Technology, well above the normal
>> threshold for pain."
>
>==========
>
>Yet another weapon of mass destruction in the hands of the US military, eh?
>
>All for sake of oil.
>

Hey, the people at Halliburton gotta eat...

I believe they're justifying it, saying it's probably better to make
someone deaf than to shoot them. I dunno...

Bob
k5qwg

3827. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:22:23 UTC
From: Toni <ea3fya@hotmail.com>
Message-ID: <h3cu40tql015kmoghoeek2ceptusren9eq@4ax.com>
Source record: 98698

En Yuri Blanarovich va escriure en 10 Mar 2004 14:47:54 GMT:

>>The
>>apparently easier and safest way to go is not switching at the
>>very edge but at some 70% of the element.
>
>
>Why do you want use pneumatic switches to disconnect part of the antenna?
>Why not use the LC traps? They provide "automatic" switching.

Because, appart from being dificult to build and tune (to me)
they restrict a lot the useful bandwidth. I have not found a
trapped design that didn't present a very narrow SWR curve.

With a switched diople for 10/15/17/40 I should be able to
operate full-band moderatelly well on all of them (specially, all
of 28-30 MHz), even if the antenna detunes a bit with aging.

As for pneumatic operation it is for simplicity. I would have
used relays but then you have to start thinking on RF chokes and
decoupling both the feeding and the control line. Compressed air
tubes are non-conductive = no-problem. Again, I like the
simplicity of it. Price is not very diferent.

Toni - EA3FYA

3828. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:26:02 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <esG3c.225812$uV3.976153@attbi_s51>
Source record: 98699

You are certainly correct . I thought you lived in Oregon and I have been informed that you live in Northern California. So yes, I have visited the State of California and thus I am certainly a liar ,but I am unaware if I have been near your locale or on your front yard.
Like you I would not enjoy it if people trespass on my lawn.
Art Unwin KB9MZ......XG. Still going!

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:c37t409r74hba8340ec2gcvah282r3294v@4ax.com...
> On Wed, 10 Mar 2004 04:25:53 GMT, "aunwin" <aunwin@insightbb.com>
> wrote:
>
> >No it is not me, it was you who commented about immigrants walking across
> >your yard
>
> Art,
>
> You are a liar.
>
> Richard Clark, KB7QHC

3829. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:34:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f35c5_4@corp.newsgroups.com>
Source record: 98702

Richard Harrison wrote:
> Seems to me there`s no magic. The waves just do what they must.

Reckon why some people believe that wave energy is allowed to change directions at the load but not allowed to change directions at the match point?

One of the problems in the field of RF (that the optics people don't have) is the effective reflection coefficient Vs the physical reflection coefficient. I have never heard an optics engineer say, "Since reflections are eliminated at the thin-film surface, the effective index of refraction of the thin-film is 1.0." The optics reflection coefficient doesn't change with the magnitude of reflected energy. It is always (n2-n1)/(n2+n1) where 'n' is the index of refraction.

Yet RF engineers will say, "Since reflections are eliminated at the 50 ohm to 450 ohm impedance discontinuity, the reflection coefficient is zero." Why isn't the reflection coefficient always (Z2-Z1)/(Z2+Z1) as it is in the field of optics?

Note: [(Z2-Z1)/(Z2+Z1)]^2 = [(n2-n1)/(n2+n1)]^2

The term on the left side of the equation is the RF power reflection coefficient. The term on the right side of the equation is the Reflectance (the irradiance optical reflection coefficient). Irradiance is energy per unit time per unit area and is equal to power per unit area. Thus the irradiance of a confined laser beam is equivalent to power in a confined transmission line.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3830. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:38:45 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <yzG3c.6778$XB.4310@newsfe1-gui.server.ntli.net>
Source record: 98701

To stop the arcing, why not put a condenser across
the points, like on my old Morris Minor contact breaker points ?

Kevin
i
M3 TW T

(Sorry - couldn't resist that)

3831. Re: Wire Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:42:47 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <BsidnS7o6ufvqtLdRVn-gg@comcast.com>
Source record: 98703

First off, for frequencies less than about 5 MHz, 30 feet is really too short. Try to at least double that, and try to get it as high as possible.

The stations will be bunched. that is how they are allocated. International broadcast stations will be bunched around 6 MHz (49 meters),7 Mhz (39 meters), 9 Mhz (31 meters), 11 MHz (25 meters), and up around 16 Mhz.

Keep in mind that which band will work at any given time will depend on the time of day. You will only hear long distance stations on 7 MHz and below after dark. The higher frequency stations might come in all day long, or only during the day. Afternoon is usually good. Long distance on the AM band is strictly after dark. With a short antenna you will have the best luck on stations above 1300 KHz, or so. The biggest problem will be hearing distant stations that are close in frequency to a local stations. Tune for "clear channel" stations (unfortunately, mostly on lower frequencies, like WABC and WCBS NY, WJR Detroit. WLW Cincinnati, WLS New Orleans, etc. 1000 miles is not a big deal.

Above all, you need a radio with good selectivity. A high end audiophile receiver is absolutely the worst thing; old car radios work well.

Tam/WB2TT
"Matthew&Wendy" <mapwam@frontiernet.net> wrote in message
news:Hgu3c.1513$YB2.656@news02.roc.ny...
> I have a simple scanner/shortwave receiver and have recently installed a
> wire antenna. I have been able to pick up stations over 500 miles away.
> However, it seems as though the stations are grouped in very narrow bands.
> Is there a way to make the antenna "look" longer or shorter electronically
> so that I have a greater range of frequencies? Thanks your help in
advance.
> Matthew
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.605 / Virus Database: 385 - Release Date: 3/1/2004
>
>

3832. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:50:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f397a$1_4@corp.newsgroups.com>
Source record: 98704

Reg Edwards wrote:
> In view of the nil replies to the following posting it's safe to say that's
> another old wives' tale which bites the dust.

Reg, we have a clear example of where the high voltage part of the antenna is not allowed to radiate (much). That would be a balanced top hat. Not allowing the high voltage part of the antenna to radiate leaves the high current part to do most of the radiating. We know from field strength measurements that a mobile antenna with a balanced top hat can radiate as well (or better than) an antenna equipped with a radiating high voltage top section.

If you keep the high voltage portion of the antenna and replace the high current portion with an antenna tuner, the field strength falls by some 12 dB.

Lengthening the high current section under the loading coil has a much greater effect than lengthening the high-voltage section on top of the loading coil.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3833. Re: Radial Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:54:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2ndob$94d$1@titan.btinternet.com>
Source record: 98705

Mike,

I assume you will have ground surface or shallow buried radials.

There are hardly any resonant effects in shallow-buried radials so no need to concern yourself with particular lenghts.

You will be far better off with more and shorter wires. The attenuation along radial wires is quite high. There's no current flowing in them beyond a small fraction of a wavelength from the focal point. They may as well not be there.

Wire diameter selected solely on your ideas about durability. Enamelled copper wire is fine and may be less expensive, easier to obtain than the bare stuff.

Not much point in having radials longer than 1/10th or 1/15th wavelengths in moderately good soil at the lowest frequency of interest. A little longer in poor soil. Shorter in very good soil. Moisture content and fertility is the guide.

Begin with one radial and increase the number by 50% until the RECEIVED signal strength from lower frequency, stable, reliable transmitters stops increasing. Then add a few more for luck. You will probably end up with fewer radials than recommended in the handbooks.

Reg, G4FGQ

3834. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 15:59:43 UTC
From: Toni <ea3fya@hotmail.com>
Message-ID: <tdeu40t6udi144vhmgjbdlhfqmdk0lpopt@4ax.com>
Source record: 98706

En nick smith va escriure en Wed, 10 Mar 2004 15:38:45 -0000:

>To stop the arcing, why not put a condenser across
>the points, like on my old Morris Minor contact breaker points ?
>
>Kevin
> i
>M3 TW T

Not that bad an idea. Had already thought so for a rotable 10/15
rigid dipole. With a 15 pF capacitor / short at 50% on each leg
you get both a good 10 and 15 meters dipole with a little (very
little) extra gain for 10 meters. Operation voltage on capacitor
with 100W is only 170V -> No arcing. SWR is about 2 for 28-30 and
< 1.7 for 15m

>
>(Sorry - couldn't resist that)

(Sorry I couldn't resist either)

Toni - EA3FYA

3835. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 16:09:29 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <c2nejp$3c8$1@xuxa.iecc.com>
Source record: 98707
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

```
= = = tommyknocker <tomynokr@uucp.hell> wrote in message
= = = news:<c2lq9s$6tv$1@xuxa.iecc.com>...
> Dennis wrote:
>
> > In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
> > >
> > >
> > >Dennis wrote:
> > >
> > >> HI,
> > >>
> > >> Does anybody have a circuit that will
> > >> decode the WWVB signal,and output to a clock
> > >> led circuit?
> > >>
> > >> TIA,
> > >>
> > >> Dennis
> > >>
> > >>
> > >Hi,
> > >Unless you want to have fun building a clock, there are many such clocks
> > >or watches out there. I wear a watch. Very accurate in time keeping.
> > >Tony, VE6CGX
> > >
> >
> > Yes, I have one of these clocks also. The thing is, these clocks
> > are set 6 times in a 24hr perod by the WWVB signal. The rest of the
> > time the time base is an ordinary crystal. I want my clock to be
> > set on a more continous basis. This could only happen with the
> > continous decoding of the signal. This is how the "professional"
> > clocks, such as those made by Spectracom work.
> >
> > -Dennis
>
> You'll find that most of the schematics on the net for atomic clocks are
> of the crystal variety-they set once or twice a day with WWVB and the
> rest of the time use a crystal. You'll have to do some digging to come
> up with something that does continuous decoding, but I'm sure it's out
> there.
>

TK,
```

For a normal 'ordinary' Consumer Time Standard that is Accurate to
within a Tenth of Second: Every Minute; Every Hour; Every Day . . .
The above Time Synchronization Process is more than adequate.

~ RHF
.

3836. Re: Radial Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 16:10:45 UTC
From: Mike Coslo <mjc5@psu.edu>
Message-ID: <404F3E05.5040300@psu.edu>
Source record: 98708

Reg Edwards wrote:
> Mike,
>
> I assume you will have ground surface or shallow buried radials.

They will be shallow buried.

> There are hardly any resonant effects in shallow-buried radials so no need
> to concern yourself with particular lenghts.

> You will be far better off with more and shorter wires. The attenuation
> along radial wires is quite high. There's no current flowing in them beyond
> a small fraction of a wavelength from the focal point. They may as well not
> be there.
>
> Wire diameter selected solely on your ideas about durability. Enamelled
> copper wire is fine and may be less expensive, easier to obtain than the
> bare stuff.

Okay, I thought I heard something about this in here somewhere! So I can use insulated wire? I do have some #12 insulated solid wire - it's of the house wiring type, with a relatively hard insulation on it. I don't know if this would work or not, but it would seem to make things last a lot longer. and I wouldn't have to buy more nekkid wire.

> Not much point in having radials longer than 1/10th or 1/15th wavelengths in
> moderately good soil at the lowest frequency of interest. A little longer
> in poor soil. Shorter in very good soil. Moisture content and fertility is
> the guide.

> Begin with one radial and increase the number by 50% until the RECEIVED
> signal strength from lower frequency, stable, reliable transmitters stops
> increasing. Then add a few more for luck. You will probably end up with
> fewer radials than recommended in the handbooks.

Thank you much!

- Mike KB3EIA -

3837. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 16:13:44 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <HuDBqw.Dx7@bath.ac.uk>
Source record: 98709

Art Unwin KB9MZ wrote:

> Why doesn't the ARRL offer BPL people the code portions of amateur
> bands.
> With removal of the code from exams around the World and the aging of
> the hobby
> being generous with an offer will help the hobby to survive a bit
> longer. If the interference created is not to the common good then BPL
> goes out the window, if the interference does NOT occur then the
> common good should benefit.
> We have to recognise that the hobby is not attracting sufficient new
> members as more auguements occur and as computors become the prime
> vehicle for communication via forums such as this.
> Regards
> Art

Put your asbestos suit on, Art. ;-)

The BPL or PLC problem will be temporary IMHO. It just doesn't
make economic sense to install all that stuff for a _shared_
speed of a few megabits a second, which is all that can be realised
at HF. Share that out among a hundred or more users and suddenly
it's not really all that fast. During the first uptake when there
are few users it will look fast, but as the number of subscribers
gets up to economic levels it'll slooow down to modem speeds. In
most areas users will be predominantly either business or residential
so the apparent speed gains from diversity of usage patterns will
not be realisable.

ADSL and wireless will continue to follow Moore's law for speed and BPL
will be up against Nyquist limits in short order. Our expectations and
appetite for network bandwidth will continue to grow for the foreseeable
future. Once the consumers start to realise that the BPL system is no
longer speed competitive they will melt away and the BPL providers will
shut up shop.

A technology with a very short life, I certainly wouldn't recommend
shares in that technology for the long term. ;-)

vy 73

Andy Cowley

3838. Re: Steppir Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 16:28:51 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <7nH3c.163583$4o.286388@attbi_s52>
Source record: 98710

Yuri,
Lets face it, if he spends a $1000 for a new antenna and puts it up this summer. It is with certaincy that he will not have more QSOs than he had with his present antenna this pass winter When propagation is not there you can spend even more money and still not overcome the problem. Even the antenna that you sell would be a better choice, (Lazer beam is it called?) if it means forking out less money.For 10 and 15 metres when there is propagation $1000 antennas doesn't make a real difference.
Regards
Art

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message news:20040307225531.29724.00001125@mb-m21.aol.com...
> >
> >Why not wait until sun spot cycle turns around. I think I would wait a few
> >years and then see what is on the market, it is a lot of money to spend for
> >bands that are presently deteriating.
> >Art
> >
>
> When the bands are "deteriating", that's when you need good antenna. When bands
> are good, the wet noodle will suffice. It is cheaper now than in the next
> sunspot cycle.
>
> Nothing like a "good" advice :-)
>
> Yuri

3839. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 16:40:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <legu405fegevv5i0o7rpln65k5ugbg1mt6@4ax.com>
Source record: 98711

On Wed, 10 Mar 2004 16:59:43 +0100, Toni <ea3fya@hotmail.com> wrote:

>En nick smith va escriure en Wed, 10 Mar 2004 15:38:45 -0000:
>
>>To stop the arcing, why not put a condenser across
>>the points, like on my old Morris Minor contact breaker points ?
>>
>>Kevin
>> i
>>M3 TW T
>
>Not that bad an idea. Had already thought so for a rotable 10/15
>rigid dipole. With a 15 pF capacitor / short at 50% on each leg
>you get both a good 10 and 15 meters dipole with a little (very
>little) extra gain for 10 meters. Operation voltage on capacitor
>with 100W is only 170V -> No arcing. SWR is about 2 for 28-30 and
>< 1.7 for 15m
>
>>
>>(Sorry - couldn't resist that)
>
>(Sorry I couldn't resist either)
>
>Toni - EA3FYA

(I can resist it)

Hi All,

The reason for the condenser in the breakers contacts was to RESONATE the system so that current dumped through the (this time I will call it by its more modern name) capacitor. Given this dump was a damped one cycle wave (the spark current) it both enhanced the boost to the ignition coil and opened the circuit effectively in the DC path. If you chose the wrong value, it snubbed the spark and eroded the contact faces: in other words, worse than useless.

You should take stock of the terms RESONATE and DC, two situations that are antithetical to the application. If you want to open an AC circuit path, the addition of this capacitor is counter-intuitive. It is also a tuning complexity: too big a value, it makes the switch useless; too small a value, it retains the arc potential. Any value, it causes a shift of the operating frequency - you are back in trap city, without the necessary inductor, with an added switch, and nothing seems to be gained.

Much simpler to not key-down while changing the switch.

73's
Richard Clark, KB7QHC

3840. Compact VHF fox hunting antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 16:41:20 UTC
From: George <look@signature_to.reply>
Message-ID: <QyH3c.13133$%06.11434@newsread2.news.pas.earthlink.net>
Source record: 98712

Is anyone aware of a small directional antenna that is useful for direction finding at VHF? My understanding is that Doppler antennas work only while moving (true?) and what I need is a directional antenna that can be used while at rest. Low efficiency and relatively broad main lobe are OK as long as physical size is small.

Thanks,
George K6GW

3841. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 16:59:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2nhia$64l$1@hercules.btinternet.com>
Source record: 98713

Cec, I don't doubt your experimental results. It's your extrapolated
imagination and logic which worries me. ;o)

Yours, Reg.

3842. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 17:10:26 UTC
From: thatcher <thatc4@net.com>
Message-ID: <c2nkdj0ah1@enews1.newsguy.com>
Source record: 98716

I guess I better learn how to 'copy' BPL at 3 MBPS.

Art Unwin KB9MZ wrote:

>Why doesn't the ARRL offer BPL people the code portions of amateur
>bands.
>With removal of the code from exams around the World and the aging of
>the hobby
>being generous with an offer will help the hobby to survive a bit
>longer. If the interference created is not to the common good then BPL
>goes out the window, if the interference does NOT occur then the
>common good should benefit.
>We have to recognise that the hobby is not attracting sufficient new
>members as more auguements occur and as computors become the prime
>vehicle for communication via forums such as this.
>Regards
>Art
>the bansthatcher <thatc4@net.com> wrote in message
news:<c265ct027k1@enews2.newsguy.com>...
>
>
>>http://biz.yahoo.com/fool/040303/1078348320_1.html
>>
>>
>>*Motley Fool*
>>Broadband and Utilities, Oh My
>>Wednesday March 3, 4:12 pm ET
>>By Mark Mahorney
>>
>>Only a year ago, broadband over power line (BPL) was seen as a
>>technology with an uncertain future and far from implementation. Despite
>>early snafus, BPL has ironed out its kinks and is now being rolled out.
>>Though largely ignored, this is one of the most exciting events to hit
>>technology news in a long time.
>>
>>ADVERTISEMENT
>>
>>Considering how long the Internet has been sharing phone lines, it's
>>taken a long time for power lines to reach the dual-use point. Cable and
>>DSL Internet service providers have been crossing their fingers hoping
>>it wouldn't happen.
>>
>>It's sneaking up on them just as cable Internet launched a sneak attack
>>on dial-up providers. Now, the dial-up providers are largely dependent
>>on phone company partnerships and rural customers who can't get cable or

>>DSL. But what will become of them if those customers -- which represent
>>a significant portion of the population -- can get broadband Internet
>>over their power lines? And who would have thought we may soon be paying
>>our power company for Internet access?
>>
>>Yesterday, *Cinergy* (NYSE: CIN <http://finance.yahoo.com/q?s=cin&d=t> -
>>News <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
>>Broadband subsidiary and partner Current Communications are rolling out
>>the BPL service in the Cincinnati, Ohio area. After testing the service
>>in a small region, the company is ready to unleash the power (no pun
>>intended). It claims its service is faster -- more than three megabytes
>>per second compared with cable's roughly two megs per second -- and
>>cheaper than cable Internet.
>>
>>Test customers have been happy with the service, and there have been no
>>problems with interference. Furthermore, all that's needed to tap into
>>it is a $30 HomePlug power line modem, which the company will be giving
>>away.
>>
>>Cinergy isn't the only utility looking at this technology, either. There
>>are numerous power companies developing the capability or watching its
>>development closely. Internet start-ups like Current Communications are
>>waiting in the wings to help the utilities initiate and manage the service.
>>
>>It's a potentially huge revenue source for the utilities, with the
>>possibility of being a huge revenue drain for the current Internet
>>providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
>><http://finance.yahoo.com/q?s=cmcsa&d=t> - News
>><http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
>>Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
>><http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
>><http://finance.yahoo.com/q?s=bls&d=t> - News
>><http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications* (NYSE:
>>SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
>><http://finance.yahoo.com/q/h?s=sbc>), and even the traditional dial-ups
>>like *Time Warner's* (NYSE: TWX <http://finance.yahoo.com/q?s=twx&d=t> -
>>News <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
>>*Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
>>News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying attention.
>>
>>From the look of things, this technology will roll out much faster than
>>most people expect. I am certainly willing to give it a try if and when
>>it comes to my area. And I recommend you check with your local power
>>company to see if it has any plans to implement the technology. If so,
>>consider taking a good look at both the stock and the service. It could
>>be the next big thing.
>>
>>/What do you think this new technology means for cable companies like
>>Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
>>service providers like Time Warner's AOL

>><http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
>>other Fools on our discussion boards./
>>
>>/Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
>>doesn't own shares of any companies mentioned./
>>
>>

3843. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 17:12:02 UTC
From: thatcher <thatc4@net.com>
Message-ID: <c2nkgi1ah1@enews1.newsguy.com>
Source record: 98718

Andy Cowley wrote:

> Art Unwin KB9MZ wrote:
>
>> Why doesn't the ARRL offer BPL people the code portions of amateur
>> bands.
>> With removal of the code from exams around the World and the aging of
>> the hobby
>> being generous with an offer will help the hobby to survive a bit
>> longer. If the interference created is not to the common good then BPL
>> goes out the window, if the interference does NOT occur then the
>> common good should benefit.
>> We have to recognise that the hobby is not attracting sufficient new
>> members as more auguements occur and as computors become the prime
>> vehicle for communication via forums such as this.
>> Regards
>> Art
>
>
> Put your asbestos suit on, Art. ;-)
>
> The BPL or PLC problem will be temporary IMHO. It just doesn't
> make economic sense to install all that stuff for a _shared_
> speed of a few megabits a second, which is all that can be realised
> at HF. Share that out among a hundred or more users and suddenly
> it's not really all that fast. During the first uptake when there
> are few users it will look fast, but as the number of subscribers
> gets up to economic levels it'll slooow down to modem speeds. In
> most areas users will be predominantly either business or residential
> so the apparent speed gains from diversity of usage patterns will
> not be realisable.
>
> ADSL and wireless will continue to follow Moore's law for speed and BPL
> will be up against Nyquist limits in short order. Our expectations and
> appetite for network bandwidth will continue to grow for the foreseeable
> future. Once the consumers start to realise that the BPL system is no
> longer speed competitive they will melt away and the BPL providers will
> shut up shop.
>
> A technology with a very short life, I certainly wouldn't recommend
> shares in that technology for the long term. ;-)
>
> vy 73
>

> Andy Cowley

Unless there are the inevitable technological advances in BPL.

3844. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 17:17:22 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2nimjeas1@newshost.mot.com>
Source record: 98714

Interesting question and actually BEFORE I read R. Clark's post I decided to say that I will begg off at this point. I may be overcome with curiosity on this question in the near future (like I did for the QST WATTMETER article calculations), but for now I prefer not to take the challenge. Joules are much more than I want to consider. Job, Wife, Mother, Mother-in-law, sister-in-law all needing care and a job that is full of crap. I use this for enjoyable discussions that I can contribute to and this a way more brain power that I want to devote. I suspect you, Cecil, can explain it. I know that a 1/2 wave repeats the load Z, smith Chart and all that and can work with that.

you win. 73

--
Steve N, K,9;d, c. i My email has no u's.
"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:404e9e38_5@corp.newsgroups.com...
> Steve Nosko wrote:
> >>>>100W XMTR---50 ohm coax---x---1/2 WL 450 ohm ladder-line---50 ohm load
>
> > Assuming yes... I think you are saying that we have a 450 ohm line and a
50
> > ohm load and therefore there is a reflection. Is that where you are?
>
> Yes, there are reflections on the 450 ohm ladder line and none on the 50
> ohm coax.
>
> >>There
> >>is no reflected energy on the 50 ohm coax and therefore no momentum in
> >>the reflected waves on the 50 ohm coax.
> >
> > I think you contradicted yourself here. Are you saying that there
IS or
> > IS NOT reflected energy/waves on the 50 ohm section (to the left of the
> > "--x--"??
>
> No contradiction. There's no reflected energy on the 50 ohm coax because
> those two reflections are cancelled at the Z0-match point 'x'. They are
> equal in magnitude and opposite in phase.
>
> >> So what changes the direction
> >>and momentum of the energy wave reflected from the load?
> >
> > You lost me here. Perhaps you are asking; "If there is a wave
> > reflected at the end with the 50 ohm, back toward the left, how does

this
> > power then get absorbed IN that load?" Is this the question?
>
> No, there is 178 joules/sec rejected by the load on the 450
> ohm line. That energy possesses direction and momentum toward the source.
> What reverses the direction and momentum of that reflected energy?
>
> > The wave, in the 450 section, reflected from the load is NOT the power
being
> > delivered TO the load, so it does not have to be "changed' to be
delivered
> > there.
>
> There is 100 joules/sec traveling to the right and none to the left on the
50 ohm
> coax. There is 278 joules/sec traveling to the right and 178 joules/sec to
the left
> on the 450 ohm ladder-line. How does the rearward traveling 178
joules/sec, rejected
> by the load, get turned around and join the forward traveling 100 source
joules/sec
> in order to add up to 278 joules/sec of forward power on the ladder line
that is
> incident upon the load?
>
> It's a simple question: How does energy rejected by the load become energy
incident
> upon the load?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3845. Re: 2.4 GHz waveguide/horn antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 18:01:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bjju401tuluv56t17hi0jahat66pg1jiiu@4ax.com>
Source record: 98715

On Wed, 10 Mar 2004 08:47:27 -0600 (CST), richardharrison@webtv.net (Richard Harrison) wrote:

>Jeppe wrote:
>"So my problem is really mostly that I am trying to guess how close the
>tip of the 1/4 wavelength probe antenna rod can be to the opposite wall
>of the wave guide - without "detuning" the probe / affecting the SWR in
>a detrimental way."
>
>I don`t know, so I`m glad you asked the question. This is a good
>newsgroup and I`d wager that someone will provide the answer. It`s been
>a long time since I worked with microwaves and then it was with
>commercial equipment.
>

Hi Guys,

I thought that was pretty well evident by the photograph alone. It should also be quite obvious by the sheer ratio metrics of wavelength dimensions: A quarter wave element penetrating into a half wave dimension finds the tip of the element one quarter wave from the opposite wall. When you reduce the fractions, the answer is simply half way across. It is like a key, if it doesn't fit, you've done something very wrong.

You can observe that the tip resides at a spot defined by the intersection of two lines drawn from the four corners of the interior box dimension of the throat.

The physics of wavelength, the size of scale for microwaves, the regularity of surfaces, and common sense combine naturally to allow anyone to manipulate and visualize all interactions with more ease than attempting to perform the same operations at HF.

Adding inline lumped reactances is also visually elegant. You erect short walls on opposite faces of the throat to build inductors or capacitors (capacitive and inductive elements are 90ï¿½ from each other; inductors are erected across the shorter face, capacitors across the longer face - all should note the correlation to e-field and h-field geometries) and if you want to build a resonant trap (LC) you construct a window frame (the combination of the four short walls built) or iris occupying the interior of the throat.

One dimension that has lacked discussion is how far from the back of the throat (the back wall) should this probe be placed. The link offered reveals that this, too, maintains the standard ratio metric of

a quarter wavelength. However, other sources of mine suggest this is variable for matching issues and may be as great as 3/8ths wavelength or as short as 1/5th wavelength. Such adjustments add inductance or capacitance to the rod to balance out its reactance (if present). This is of less importance to receiving and the recommended quarter wave placement is sufficient.

73's
Richard Clark, KB7QHC

3846. Re: Radial Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 18:15:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2nlvmorb1@titan.btinternet.com>
Source record: 98717

Mike,
Relatively thick plastic insulated wire will do fine for shallow-buried radials.

Funnily enough, they result in slightly lower input loss resistance. (If you take them out of the ground entirely, so that they behave as elevated radials, you get a very low loss of course and with strong resonance effects.)

Thick plastic insulated buried radials will have slightly greater resonance effects than bare or enamelled wire which have next to none. They will also have lower attenuation in the ground. In principle they could be made somewhat longer than the equivalent bare wires. But as the length of bare wires is all wishy-washy anyway you can forget about it. Go ahead and lay it.

By the way, on 160 and 80 meters, if the shape of your property is suitable, include your domestic plumbing system in the radial system. The best radial you have is the incoming metal water main pipe. ;o)

At present I have a 160m inverted-L. Had it for years. The ONLY radial is the domestic incoming main water pipe. At one time there were 7 other radial wires of various lenghts around the garden but these were all disconnected when part of the garden was paved with concrete slabs. I noticed no difference in performance with the solitary but very good water-pipe radial.

Reg.

3847. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 18:33:51 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2nn5v$kt0$1@newshost.mot.com>
Source record: 98620

High Wind alert!

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:13012-404E9D40-627@storefull-3256.bay.webtv.net...
> Steve Nosko wrote:
> > "I am missing just what it is that gets to the "Loss-less resistance"
> > conclusion."
> If part of the source resistance were not lossless, efficiency would be
> limited to 50%.

I disagree.
DC or RF:
Real source = XX volts
Real source resistance = 10 ohms
Real load 50 ohms

Efficiency is >50% DONE. (and I have no "loss-less resistance" anywhere)

I can't figure out where you are going nor what the hole is in the
technology that needs this extra stuff... are there formulas for it?

> Fact is, Class-C amplification frequently is 2/3 or 66.6% efficient.
> Twice the power is delivered to the load as is lost in the source.

Yea. We both know all this. I'm trying to get to the WHY part. The
issue is WHERE or WHAT is this loss-less resistance? Where is it? Why is
is even needed?

>
> If we deliver 1000 watts into 50 ohms, we have 224 volts and 4.47 amps
> as a load.
>
> Our source is identical,, 224 volts and 4.47 amps. Its volts to amps is
> the same ratio, but its loss is not the same power as the power
> delivered to the load because part of the source resistance is lossless

I stop right here and say: It is because the source resistanace is
less than the load resistance. Simple as that! I can not come to any
other conclusion.

> because it is the product of interrupted energy delivery, not energy
> conversion into heat.

My eyes glaze over here. "interrupted energy delivery" -- can't
get a grip on this.

> With 2/3 efficiency, when we have 1000 watts into the load, we have 500
> watts lost in the source.

Yep. I believe the true issue is WHY does this happen? What is the cause of this effect?
"Loss-less resistance" or Rs < RL?
I say the latter, I think you say the former.

> 500 watts lost means only 1/2 the dissipative resistance as we have
> resistance in the load, and thus the source resistance consists of 25
> ohms of dissipative resistance and 25 ohms of non-dissipative

Why is this needed? I think I see. You are saying that because we have a "match" We are at the "conjugate match" condition and therefore *MUST* be at Rs=RL. Here's where I disagree. I believe this is absolutely NOT the case as I say above. It's as simple as the fact that the amplifire IS NOT internal resistance limited, but either dissipation limited or perhaps breakdown voltage limited or cathode emission limited. NOW I THINK I GET IT (your tack)!. You believe that the source resistance MUST equal the load resistance.. Well I say Nope!
DC or RF:
Real source = XX volts
Real source resistance = 10 ohms
Real load 50 ohms

Efficiency is >50% DONE. What was that guy's name Ocam? of the Ocam's razor fame:"Take the simple answer", or something to that effect.

> resistance. The total source resistance is 50 ohms which matches the
> load resistance.

I beileve this is where your error of reasoning is. I can not accept that there is some other resistance which is not quantifiable/observable/measureable. The source resistance must be less than the load R for Eff > 50%. I believe you are making this much more complicated that is really is.

> A match allows maximum power transfer.

I believe this is what is leading you astray. I believe you are assuming that the maximum power of the maximum power theorem, and the maximum power out of the real transmitter, are the same maximum power. This is where I believe the error in reasoning is that requires the loss-less resistance. They are not the same maximum power.

The typical DC power supply is operated with Rs <<< RL. The power output is limited by factors other than the maximum power transfer theorem (its output resistance) suggest. The power supply is not limited by its internal resistanse, but usually its ability to dissipate what little amount of heat (relative to the load power) that is can.

I'll stick my neck out (because I believe I have a firm understanding of what physical laws can not be violated) and say that my conclusion is that the tube amplifier we commonly think of, when "tuned up" absolutely can not be operating in an Rs=RL configuration. This is for the very reasons you have stated. Because the power dissipated in the tube is less than in the load, Rs does not = RL. This is is, of course, looking at

the load R presented to the tube by its output tank circuit. I believe that this (the RL.-RS stuff) is the natural law which can not be violated.

There is indeed SOME load which the tube likes to see in order to get whatever power it can provide to come out. And it AIN'T Rs.

>
> The less than 360 degrees of energy supplied to the load makes 25 ohms
> of dissipationless resistance as a part of our 50-ohm source in our
> example.
>
> Keep working on the idea and eventually you may get the model.
> Best regards, Richard Harrison, KB5WZI

I 'spose it's briefly is an interesting idea for discussion, but sorry Richard, I find it hard to beieve it actually has any merit. My (I think generally accepted) model works fine, it can explain all the phenomona(sp) so far observed and... I work in the field and have never met anyone with this idea and I have yet to see anything in the (uh, oh, here it comes. nose in the air Engineer snob talk) profession which suggests this lossless stuff is there, nor is there anything that remains unexplained which needs some other effect.

I guess we close disagreeing.

If it works for you...

Interesting journey into some serious examination of principles, however.
--
Steve N, K,9;d, c. i My email has no u's.

3848. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 18:34:09 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <kbJ3c.27984$gC2.9363@newsfe5-gui.server.ntli.net>
Source record: 98619

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:legu405fegevv5i0o7rpln65k5ugbg1mt6@4ax.com...
> On Wed, 10 Mar 2004 16:59:43 +0100, Toni <ea3fya@hotmail.com> wrote:
>
> >En nick smith va escriure en Wed, 10 Mar 2004 15:38:45 -0000:
> >
> >>To stop the arcing, why not put a condenser across
> >>the points, like on my old Morris Minor contact breaker points ?
> >>
> >>Kevin
> >> i
> >>M3 TW T
> >
> >Not that bad an idea. Had already thought so for a rotable 10/15
> >rigid dipole. With a 15 pF capacitor / short at 50% on each leg
> >you get both a good 10 and 15 meters dipole with a little (very
> >little) extra gain for 10 meters. Operation voltage on capacitor
> >with 100W is only 170V -> No arcing. SWR is about 2 for 28-30 and
> >< 1.7 for 15m
> >
> >>
> >>(Sorry - couldn't resist that)
> >
> >(Sorry I couldn't resist either)
> >
> >Toni - EA3FYA
>
> (I can resist it)
>
> Hi All,
>
> The reason for the condenser in the breakers contacts was to RESONATE
> the system so that current dumped through the (this time I will call
> it by its more modern name) capacitor. Given this dump was a damped
> one cycle wave (the spark current) it both enhanced the boost to the
> ignition coil and opened the circuit effectively in the DC path. If
> you chose the wrong value, it snubbed the spark and eroded the contact
> faces: in other words, worse than useless.
>
> You should take stock of the terms RESONATE and DC, two situations
> that are antithetical to the application. If you want to open an AC
> circuit path, the addition of this capacitor is counter-intuitive. It
> is also a tuning complexity: too big a value, it makes the switch
> useless; too small a value, it retains the arc potential. Any value,

> it causes a shift of the operating frequency - you are back in trap
> city, without the necessary inductor, with an added switch, and
> nothing seems to be gained.
>
> Much simpler to not key-down while changing the switch.
>
> 73's
> Richard Clark, KB7QHC

I think Richard missed that one then !!!!

3849. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 18:36:13 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c2nnad$l28$1@newshost.mot.com>
Source record: 98621

Uhhh... I think this is what I said (in other words of course)....I
think...73
--
Steve N, K,9;d, c. i My email has no u's.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:8ils401ufej0mqmn3pmefc4qrvppejjhm7@4ax.com...
> On 9 Mar 2004 10:01:04 -0800, wa5bdu@yahoo.com (Nick Kennedy) wrote:
>
> >I see this paper as a variation on a line of reasoning that goes like
> >this:
> >
> >1) A conjugate match results in maximum power delivered to a load, so
> >it is good.
>
> It is also a cliche unless another outcome was expected. As there are
> other types of match, "good" becomes a speculation of value
> judgements.
>
> >2) A connection where the load has much higher resistance than the
> >Thevenin equivalent source resistance results in high efficiency, so
> >it is also good.
>
> At this point it is well to point out that there is no expectation of
> "efficiency" implied or expressed in conjugation. Good follows from
> application, application does not drive good.
>
> >3) Since (1) and (2) are both good, they must be equivalent to each
> >other. Therefore a conjugate match is what it is not. This is an
> >apparent contradiction.
>
> "is what it is not" I am the Walrus? Coo-coo ca choo!
>
> Two goods have no inherent relationship. Scratching an itch, and
> solving world hunger also have no equivalency. Contradictions and
> correlations can be forced across innumerable topics by this standard.
>
> >4) The contradiction is resolved by postulating a special kind of
> >resistance that adds to the source resistance. However, it has no
> >physical effect and exists only to resolve the contradiction in (3).
>
> This has descended into the conventional mixing of theories to argue
> one example. There is no reason to call on any resistance to perform
> matching for efficiency's sake. There is no reason to enforce

> efficiency upon a conjugate match.
>
> A Conjugate Match is simply the observation of the inverse Load
> Impedance presented to it by the source. The quality of that is that
> the combination of inverse reactances yields a purely resistive
> solution. Conjugation is an artifice to protect the source from
> circulating currents and elevated potentials, it has no other purpose.
>
> The Zo Match is not a Conjugate Match although it may be in special
> circumstances. A Conjugate Match is not a Zo Match although it may be
> in special circumstances. The Zo Match closely mimics the Thevenin
> topology.
>
> The Thevenin Theorem never contained a resistance to later argue its
> necessity. Thevenin offered a source with an Impedance. An Impedance
> "may" contain resistance, but it is not a necessity. The argument for
> dissipationless resistances within the source automatically reject
> themselves from the Thevenin category through being non-linear.
> Attempts to re-embrace this linearity are convincing (the flywheel
> argument of the finals' plate tank); but it does not deny the physical
> resistance rendering heat that inhabits the source interior.
>
> 73's
> Richard Clark, KB7QHC

3850. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 18:39:18 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f6106_2@corp.newsgroups.com>
Source record: 98623

Reg Edwards wrote:
> Cec, I don't doubt your experimental results. It's your extrapolated
> imagination and logic which worries me. ;o)

I didn't imagine those experimental results, Reg, and all I did was
report those results. My logic tells me that there is a grain of
valid circumstantial evidence in there somewhere.

What you need to do to prove your point is present an antenna where the
high-current portion is prohibited from radiating yet still yields a
high field strength.

Example #1: The top half of an electrical 1/4WL antenna is prohibited
from radiating by a balanced top hat. Field strength results are
similar to a 1/4WL monopole. This has already been presented.

Example #2: The bottom half of an electrical 1/4WL antenna is
prohibited from radiating by _____. Fill in the blank
and prove that field strength results are similar to a 1/4WL monopole.
That's all you need to do to make a believer (instead of a doubter)
out of me.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3851. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 18:39:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0knu40losrtkgrhbfng4funhk2rr2468ls@4ax.com>
Source record: 98622

On 10 Mar 2004 06:04:26 -0800, jaroslavlipka@msn.com (jaroslav lipka)
wrote:
> Your tenacity and conviction in the face of the opposition on
>this group is admirable. Stick to your guns, for what it is worth my
>money is on you.
>
> Jaro.

Ah Jaro!

It takes more than two munchkins to populate the Land of Oz.

Knowing this will irritate both of you, but please the majority who
actually enjoy the addition of new information (this time in the field
of literature) I shall diverge to "The Life of Johnson."

"Even fools received his personal attention.

Said one: 'But I don't understand you, Sir.'

'Sir, I have found you an argument. I am not obliged to find you
an understanding.'

'Sir, you are irascible,' said Boswell;
'you have no patience with folly or absurdity.'"

73's
Richard Clark, KB7QHC

3852. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 18:47:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qeou40dpmu2qv9altu46pd0lv6rkhu5rpg@4ax.com>
Source record: 98624

On Wed, 10 Mar 2004 18:34:09 -0000, "nick smith" <NickS@ntlworld.com>
wrote:
>I think Richard missed that one then !!!!
>
Why? Because I had a Hillman Minx, or was it the MG-TD?

3853. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 18:50:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f63a5$1_2@corp.newsgroups.com>
Source record: 98625

Steve Nosko wrote:
> you win. 73

It's not a contest, Steve, it is a search for the truth. I thought maybe you could offer something compelling. The following two questions are very similar:

1. How does RF power (joules/sec) rejected by the load wind up being incident upon that same load some time later in a Z0-matched system?

2. How does irradiance (joules/sec) rejected by a pane of glass wind up being incident upon that same glass pane some time later in a non-glare air/thin-film/glass system?

Question #2 was answered decades ago by optics physicists. Question #1 still remains unanswered by RF physicists and engineers even though it has virtually the same answer as Question #2.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3854. Re: Radial Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 19:11:30 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <m3eks04ivx.fsf@qmc.ph.msstate.edu>
Source record: 98627

>It will be a 1/4 wave vertical for 80 meters.
>
> I have a question regarding the radials I'll be putting out. I
>was planning on using solid #12 copper, and was going to lay out about
>500 feet total of radial.
>
> Am I better off to use fewer and longer, or shorter and more?
>I'm inclined toward 10 50 foot radials. I have heard opposing views on
>the "proper" length of radials. (I'm assuming that longer and more
>would be much better, but I have some practical considerations here)

If you only use that much wire, go with shorter. However, you will want to put down quite a but more wire than that to get good performance.

The rule of thumb I use is a minimum of 50 radials, with length at least the length of the vertical.

I currently have up a similar antenna- a full size wire 80m vertical hanging from a tree fed in parallel with a 160m inverted L. So far I have about 65 radials ranging from 50' to 100' in length. The antenna works great on 80, even for far DX such as 9M6. On 160 it is fairly good, but I feel I still need more radials.

Torsten
N4OGW

3855. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 19:14:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2npe0lcv1@hercules.btinternet.com>
Source record: 98626

Its the voltage parts of the antenna which do the radiating.

That is proved by cutting off the top part of the antenna and replacing it with a top hat which has a much larger capacitance so it radiates the power harder.

Reg.

3856. mobile ant base voltage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 19:33:35 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <j4K3c.1420$Rt7.420884539@newssvr11.news.prodigy.com>
Source record: 98628

QST March 2004 page 34, upper left hand corner mentions that at 100 watts
the voltage at the base of an 8 foot mobile whip could exceed 1000 volts and
arc over a CB-ball. Can anyone plase show me the math?
tnx
Hank WD5JFR

3857. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 19:38:44 UTC
From: Arnold <pigs@pink.floyd>
Message-ID: <89K3c.106222$jx3.7931333@twister.southeast.rr.com>
Source record: 98629

On Wed, 10 Mar 2004 09:12:02 -0800, thatcher stood up and said:
>
> Unless there are the inevitable technological advances in BPL.

The only technological advance in BPL will be when they abandon HF and
move over to UHF/SHF. That's the only way they'll increase *speed*.
Never assume bandwidth = speed.

3858. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 19:51:16 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f71e3$1_3@corp.newsgroups.com>
Source record: 98630

Reg Edwards wrote:
> Its the voltage parts of the antenna which do the radiating.
>
> That is proved by cutting off the top part of the antenna and replacing it
> with a top hat which has a much larger capacitance so it radiates the power
> harder.

Reg, let's say we have an elevated antenna system where the radial system
and top hat system are identical and balanced. Energy flows back and
forth between the radials and top hat. Very little energy is radiated
from either the top hat or the radials since they are balanced. Virtually
all of the radiated energy comes from the high-current vertical portion
of the antenna.

Such antennas are described in Appendix II - Short Ground-Mounted Verticals
in _Building_and_Using_Baluns_and_Ununs_ by Jerry Sevick, w2fmi.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3859. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 19:53:20 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <PmK3c.96067$aH3.2920303@bgtnsc04-news.ops.worldnet.att.net>
Source record: 98631

Cecil,

With reference to question #2:

Who says such a silly thing? Not Melles-Griot, who appear to be your favorite optical reference source. Not Born and Wolf in "Principles of Optics", which is the ultimate optics reference book. Not any professional optics experts I have ever encountered.

If you go ahead and solve the antireflective glass problem using standard Maxwell's equations (sorry, Reg and Peter) with standard boundary conditions for E and H fields you will find there is not the slightest bit of confusion. This analysis is shown in many optics and E&M textbooks.

In the perfectly antireflective case all of the waves keep moving in the same direction, from air to thin film to glass. If one postulates the existence of a wave in the reverse direction it will be discovered that the amplitude of that wave is zero, meaning it does not exist. There is no "bouncing back and forth" of confused energy not knowing where and how to turn around.

The interference model is useful and intuitive for what it is meant to explain. However, don't expect this sort of simple handwaving model to be extendable to all sorts of silliness about energy and momentum transfer.

73,
Gene
W4SZ

Cecil Moore wrote:
> Steve Nosko wrote:
>
>> you win. 73
>
>
> It's not a contest, Steve, it is a search for the truth. I thought
> maybe you could offer something compelling. The following two
> questions are very similar:
>
> 1. How does RF power (joules/sec) rejected by the load wind up being
> incident upon that same load some time later in a Z0-matched system?
>
> 2. How does irradiance (joules/sec) rejected by a pane of glass wind
> up being incident upon that same glass pane some time later in a non-
> glare air/thin-film/glass system?

>
> Question #2 was answered decades ago by optics physicists. Question #1
> still remains unanswered by RF physicists and engineers even though it
> has virtually the same answer as Question #2.

3860. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 19:58:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <smsu40hfkoomvfpurs2bs9c65o1131envd@4ax.com>
Source record: 98632

On Wed, 10 Mar 2004 19:53:20 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

> However, don't expect this sort of simple handwaving model to
>be extendable to all sorts of silliness about energy and momentum transfer.

It all goes to the measure of Standard handWaving Ridiculousness.

3861. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 19:59:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2ns31qom1@hercules.btinternet.com>
Source record: 98633

Cec, who's Jerry Sevick. I don't seem to have a copy of his works around me
at present.

Reg.

3862. Re: cobwebb

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:11:56 UTC
From: David L Thompson <thompson@mindspring.com>
Message-ID: <gEK3c.126$CJ5.71@newsread2.news.atl.earthlink.net>
Source record: 98634

Are you talking about the antenna from the UK? If so Its 20 to 10 only.
73 Dave K4JRB

David Browne <dddd@ddd> wrote in message
news:20040228155705.179$Wv@news.newsreader.com...
> hi has any one used this ant, will it tune to 40 meters using atu
> thanks dave browne
>
>

3863. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:17:05 UTC
From: richardharrison@webtv.net
Message-ID: <6875-404F77C1-19@storefull-3258.bay.webtv.net>
Source record: 98638

Steve Nosko wrote:
"I disagree." (If part of the source resistance were not lossless efficiencies would be limited to 50%.)

Before I sent that I asked myself if it were necessary to include the peoviso that the statement only applies to maximum power transfer. Sez to myself, no don`t bother. Any schoolboy knows that when the load resistance is large as compared with the source resistance, you may exceed 50% efficiency. That`s the norm for power distribution. Also, sez to myself, the title of the thread is:
"Re: max power transfer theorem"

Surely it`s understood the comments refer to maximum power transfer and not to a less demanding condition.

Me, myself, and I were wrong.

Best regards, Richard Harrison, KB5WZI

3864. Re: mobile ant base voltage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:21:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2ntc3$t1s$1@hercules.btinternet.com>
Source record: 98635

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:j4K3c.1420$Rt7.420884539@newssvr11.news.prodigy.com...
> QST March 2004 page 34, upper left hand corner mentions that at 100 watts
> the voltage at the base of an 8 foot mobile whip could exceed 1000 volts
and
> arc over a CB-ball. Can anyone plase show me the math?
> tnx
> Hank WD5JFR
>
==========
At what frequency ?

At a frequency of 10 KHz and 100 watts, an 8-foot vertical will have a
voltage across the feedpoint of many thousands of volts.

Calculation is easy. All you need to know is feedpoint reactance and
radiation resistance at the operating frequency. From then on its all Ohms
Law. Calculate the current which will generate 100 watts in the radiation
resistance. Multiply the current by the input reactance to give you the
volts.

The lower the frequency, the smaller the radiation resistance, the higher
the reactance and the higher the volts.

Reg, G4FGQ

3865. Re: mobile ant base voltage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:22:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f793d_3@corp.newsgroups.com>
Source record: 98636

Henry Kolesnik wrote:
> QST March 2004 page 34, upper left hand corner mentions that at 100 watts
> the voltage at the base of an 8 foot mobile whip could exceed 1000 volts and
> arc over a CB-ball. Can anyone plase show me the math?

Assuming that an 8 ft. whip plus autotuner may be 0.5% efficient on 75m,
1/2 watt is reaching the 0.5-j2000 ohm feedpoint impedance predicted by
EZNEC. To get 1/2 watt into the 0.5 ohms requires a voltage of 0.5 volts
across the 0.5 ohms. It follows that the voltage across the -j2000 ohms
will be about 4000 times the voltage across the 0.5 ohms. So 4000 times
0.5 equals 2000 volts. That's obviously a ballpark figure but should
"show you the math".

On a damp morning at a 75m mobile shootout on the beach in CA, my 11 ft.
whip plus SGC-230 autotuner actually did arc across the antenna mount.

Question is: Why would anyone in their right mind tolerate 2000 volts
while radiating a measly 1/2 watt from a 100 watt transmitter?

Incidentally, that 11 ft. whip plus SGC-230 autotuner was a pretty
good mobile antenna system for 20m-10m.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3866. Re: mobile ant base voltage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:24:17 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c2nthh$1urv7l$1@ID-225206.news.uni-berlin.de>
Source record: 98637

There is a current null at the end of the antenna, so the voltage is highest
there.
With 1/4 wave there is a current max at the base, voltage null.

"Bill Turner" <noway@nohow.com> wrote in message
news:d9tu40dkv4o4ne39f2pvbuk9gd4fktdtkh@4ax.com...
> On Wed, 10 Mar 2004 19:33:35 GMT, "Henry Kolesnik"
> <kolesnik@sbcglobal.net> wrote:
>
> >QST March 2004 page 34, upper left hand corner mentions that at 100 watts
> >the voltage at the base of an 8 foot mobile whip could exceed 1000 volts
and
> >arc over a CB-ball. Can anyone plase show me the math?
>
> ____
>
> That voltage is present at the END of the whip, not at the base.
>
> --
> Bill, W6WRT
> QSLs via LoTW
>

3867. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:25:12 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <404F79A8.78056E1F@uci.edu>
Source record: 98639

Cecil Moore wrote:

> Reg, we have a clear example of where the high voltage part of the
> antenna is not allowed to radiate (much). That would be a balanced
> top hat. Not allowing the high voltage part of the antenna to radiate
> leaves the high current part to do most of the radiating.

Cecil,

Reg makes a good point. We know that the same amplitude (less ohmic losses) of current travels the entire length of the antenna in both directions. The relative phase of forward and reverse currents simply makes the superposition of the two currents greater at one end than another. We might measure the standing wave current with an ammeter, but it is the traveling wave currents which radiate.

73, Jim AC6XG

3868. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:32:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f7b81_3@corp.newsgroups.com>
Source record: 98640

Gene Fuller wrote:
> In the perfectly antireflective case all of the waves keep moving in the
> same direction, from air to thin film to glass.

To prove that to be a true statement you must prove that the transistion
point between materials of different indices of refraction results in zero
reflections. Good luck on that one.

For instance, one can change the thin-film thickness from 1/4WL to 1/2WL
and cause exactly the opposite effect, i.e. extreme glare.

If you are using the quantum electrodynamics model, please let us know.
Most of the rest of us are using the EM wave reflection model.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3869. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:34:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f7c0d_3@corp.newsgroups.com>
Source record: 98641

Reg Edwards wrote:
> Cec, who's Jerry Sevick. I don't seem to have a copy of his works around me
> at present.

He's accepted by most as *the* ham balun guru. Some disagree.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3870. Re: mobile ant base voltage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:37:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f7cb9_3@corp.newsgroups.com>
Source record: 98642

Bill Turner wrote:
> That voltage is present at the END of the whip, not at the base.

Bill, the voltage at the END of the whip and at the BASE of the whip
is not all that different for 8 foot whips used on 75m. That's why
the SGC-230 doesn't have a coax connector on its output and instead
has a porcelain insulator capable of withstanding thousands of volts.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3871. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:38:13 UTC
From: Dennis <Howdy.Doody@howdydoody.net>
Message-ID: <c2nubl$5c5$1@xuxa.iecc.com>
Source record: 98645
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave

```
In article <c2nejp$3c8$1@xuxa.iecc.com>, rhf-say-bye-bye@pacbell.net says...
>
>
>= = = tommyknocker <tomynokr@uucp.hell> wrote in message
>= = = news:<c2lq9s$6tv$1@xuxa.iecc.com>...
>> Dennis wrote:
>>
>> > In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
>> > >
>> > >
>> > >Dennis wrote:
>> > >
>> > >> HI,
>> > >>
>> > >> Does anybody have a circuit that will
>> > >> decode the WWVB signal,and output to a clock
>> > >> led circuit?
>> > >>
>> > >> TIA,
>> > >>
>> > >> Dennis
>> > >>
>> > >>
>> > >Hi,
>> > >Unless you want to have fun building a clock, there are many such clocks
>> > >or watches out there. I wear a watch. Very accurate in time keeping.
>> > >Tony, VE6CGX
>> > >
>> >
>> > Yes, I have one of these clocks also. The thing is, these clocks
>> > are set 6 times in a 24hr perod by the WWVB signal. The rest of the
>> > time the time base is an ordinary crystal. I want my clock to be
>> > set on a more continous basis. This could only happen with the
>> > continous decoding of the signal. This is how the "professional"
>> > clocks, such as those made by Spectracom work.
>> >
>> > -Dennis
>>
>> You'll find that most of the schematics on the net for atomic clocks are
>> of the crystal variety-they set once or twice a day with WWVB and the
>> rest of the time use a crystal. You'll have to do some digging to come
>> up with something that does continuous decoding, but I'm sure it's out
```

>> there.
>>
>
>
>TK,
>
>For a normal 'ordinary' Consumer Time Standard that is Accurate to
>within a Tenth of Second: Every Minute; Every Hour; Every Day . . .
>The above Time Synchronization Process is more than adequate.
>
>~ RHF
>.
>Yes, for the "normal", "ordinary" consumer what you say is true.

Fortunately or unfortunately I don't fall into that catagory,
when it comes to time and frequency. I've been fascinated by
time & frequency for quite a while now.

-Dennis

3872. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:41:25 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <S2L3c.57478$Ri6.20987@lakeread04>
Source record: 98643

"Dave" <noone@nowhere.com> wrote in message
news:avudnQVsmuVJ3dPdRVn-tw@crocker.com...
>
> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:404e3bd1_6@corp.newsgroups.com...
> > "The new megaphone being deployed to Iraq can operate at 145 decibels
> > at 300 yards, according to American Technology, well above the normal
> > threshold for pain."
>
> now how do they transfer the maximum power out of it into the air? does
the
> horn look like a lossless resistance to the standing sound wave, or is it
a
> lossy transformation of the travelling wave? surely there must be an
> optical equivalent model that can be defined as a 4-port network transfer
> solution to show how it works?

> They achieved a conjugate match.

3873. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:42:34 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <X3L3c.57479$Ri6.12468@lakeread04>
Source record: 98644

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c2lpoj$d5l$1@hercules.btinternet.com...
> > "The new megaphone being deployed to Iraq can operate at 145 decibels
> > at 300 yards, according to American Technology, well above the normal
> > threshold for pain."
>
> ==========
>
> Yet another weapon of mass destruction in the hands of the US military,
eh?
>
> All for sake of oil.
>
>

Brit's can't throw too many rocks on this issue without breaking a few
windows
at home....

3874. Re: mobile ant base voltage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:45:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f7e7c_3@corp.newsgroups.com>
Source record: 98646

John Smith wrote:
> There is a current null at the end of the antenna, so the voltage is highest
> there. With 1/4 wave there is a current max at the base, voltage null.

One thing the poster forgot to mention is that the article is about
an 8 foot whip used on 75m (or other low frequency) a far cry from
"1/4 wave".
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3875. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:49:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f7f70_3@corp.newsgroups.com>
Source record: 98649

Jim Kelley wrote:
> Reg makes a good point. We know that the same amplitude (less ohmic
> losses) of current travels the entire length of the antenna in both
> directions. The relative phase of forward and reverse currents simply
> makes the superposition of the two currents greater at one end than
> another. We might measure the standing wave current with an ammeter,
> but it is the traveling wave currents which radiate.

A balanced top hat doesn't radiate much because the currents in the
opposing elements are 180 degrees out of phase with each other. It
doesn't matter if they are traveling waves or standing waves. If they
are 180 degrees out of phase with each other, they are more like a
transmission line than they are like an antenna.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3876. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:49:11 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <bbL3c.162247$Xp.836966@attbi_s54>
Source record: 98647

Gee! I wonder if all the hams with BPL callsigns, example W1BPL, K1BPL, WB1BPL, etc. will be applying for new callsigns to save embarrassment!!

I use 1st call area because that's where I was licensed and still live ... my goodness I ust be a dinosaur :-)

Deacon Dave, W1MCE

thatcher wrote:

> I guess I better learn how to 'copy' BPL at 3 MBPS.
>
>
>
> Art Unwin KB9MZ wrote:
>
>> Why doesn't the ARRL offer BPL people the code portions of amateur
>> bands.
>> With removal of the code from exams around the World and the aging of
>> the hobby
>> being generous with an offer will help the hobby to survive a bit
>> longer. If the interference created is not to the common good then BPL
>> goes out the window, if the interference does NOT occur then the
>> common good should benefit.
>> We have to recognise that the hobby is not attracting sufficient new
>> members as more auguements occur and as computors become the prime
>> vehicle for communication via forums such as this.
>> Regards
>> Art
>> the bansthatcher <thatc4@net.com> wrote in message
>> news:<c265ct027k1@enews2.newsguy.com>...
>>
>>
>>> http://biz.yahoo.com/fool/040303/1078348320_1.html
>>>
>>>
>>> *Motley Fool*
>>> Broadband and Utilities, Oh My
>>> Wednesday March 3, 4:12 pm ET
>>> By Mark Mahorney
>>>
>>> Only a year ago, broadband over power line (BPL) was seen as a
>>> technology with an uncertain future and far from implementation.
>>> Despite early snafus, BPL has ironed out its kinks and is now being
>>> rolled out. Though largely ignored, this is one of the most exciting

>>> events to hit technology news in a long time.
>>>
>>> ADVERTISEMENT
>>>
>>> Considering how long the Internet has been sharing phone lines, it's
>>> taken a long time for power lines to reach the dual-use point. Cable
>>> and DSL Internet service providers have been crossing their fingers
>>> hoping it wouldn't happen.
>>>
>>> It's sneaking up on them just as cable Internet launched a sneak
>>> attack on dial-up providers. Now, the dial-up providers are largely
>>> dependent on phone company partnerships and rural customers who can't
>>> get cable or DSL. But what will become of them if those customers --
>>> which represent a significant portion of the population -- can get
>>> broadband Internet over their power lines? And who would have thought
>>> we may soon be paying our power company for Internet access?
>>>
>>> Yesterday, *Cinergy* (NYSE: CIN
>>> <http://finance.yahoo.com/q?s=cin&d=t> - News
>>> <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
>>> Broadband subsidiary and partner Current Communications are rolling
>>> out the BPL service in the Cincinnati, Ohio area. After testing the
>>> service in a small region, the company is ready to unleash the power
>>> (no pun intended). It claims its service is faster -- more than three
>>> megabytes per second compared with cable's roughly two megs per
>>> second -- and cheaper than cable Internet.
>>>
>>> Test customers have been happy with the service, and there have been
>>> no problems with interference. Furthermore, all that's needed to tap
>>> into it is a $30 HomePlug power line modem, which the company will be
>>> giving away.
>>>
>>> Cinergy isn't the only utility looking at this technology, either.
>>> There are numerous power companies developing the capability or
>>> watching its development closely. Internet start-ups like Current
>>> Communications are waiting in the wings to help the utilities
>>> initiate and manage the service.
>>>
>>> It's a potentially huge revenue source for the utilities, with the
>>> possibility of being a huge revenue drain for the current Internet
>>> providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
>>> <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
>>> <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
>>> Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
>>> <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
>>> <http://finance.yahoo.com/q?s=bls&d=t> - News
>>> <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications*
>>> (NYSE: SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
>>> <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional
>>> dial-ups like *Time Warner's* (NYSE: TWX

>>> <http://finance.yahoo.com/q?s=twx&d=t> - News
>>> <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
>>> *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
>>> News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying
>>> attention.
>>>
>>> From the look of things, this technology will roll out much faster
>>> than most people expect. I am certainly willing to give it a try if
>>> and when it comes to my area. And I recommend you check with your
>>> local power company to see if it has any plans to implement the
>>> technology. If so, consider taking a good look at both the stock and
>>> the service. It could be the next big thing.
>>>
>>> /What do you think this new technology means for cable companies like
>>> Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
>>> service providers like Time Warner's AOL
>>> <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
>>> other Fools on our discussion boards./
>>>
>>> /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
>>> doesn't own shares of any companies mentioned./
>>>

3877. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:49:17 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <hbL3c.186260$hR.3434664@bgtnsc05-news.ops.worldnet.att.net>
Source record: 98648

Cecil,

I haven't the foggiest idea what model you might be using. I am using the classical model that is found in virtually any textbook that deals with plane waves in non-conducting media.

I don't have to "prove" anything. Just set up the standard wave equations with the standard boundary conditions and the problem practically solves itself. The non-zero remaining waves are all moving in the same direction. I forgot to ask them if they realize that Cecil doesn't approve of such behavior.

I suppose this is an prime example of being seduced by "math models", but I believe that is a lesser fault than being seduced by Cecil's imaginary models.

73,
Gene
W4SZ

Cecil Moore wrote:

> Gene Fuller wrote:
>
>> In the perfectly antireflective case all of the waves keep moving in
>> the same direction, from air to thin film to glass.
>
>
> To prove that to be a true statement you must prove that the transistion
> point between materials of different indices of refraction results in zero
> reflections. Good luck on that one.
>
> For instance, one can change the thin-film thickness from 1/4WL to 1/2WL
> and cause exactly the opposite effect, i.e. extreme glare.
>
> If you are using the quantum electrodynamics model, please let us know.
> Most of the rest of us are using the EM wave reflection model.

3878. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:50:26 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <404F7F92.2E8AF823@uci.edu>
Source record: 98654

Richard Harrison wrote:
>
> Cecil, W5DXP wrote:
> "It`s not magic and is explained on the Melles-Groit web page---. (how
> the energy magically reverses direction and heads back toward the load.)
>
> I agree. It isn`t magic. Optical examples are good because we can see
> reflections.

The phenomenon isn't magical, as can be clearly seen in the optics texts.
On the other hand, Cecil's elaborate theories on the subject transcend those described within these treatises. Nowhere other than in Cecil's works will one find a description of waves reversing direction without reflecting from a discontinuity.

73, Jim AC6XG

3879. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:51:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f801a_3@corp.newsgroups.com>
Source record: 98650

Gene Fuller wrote:
> In the perfectly antireflective case all of the waves keep moving in the
> same direction, from air to thin film to glass.

I just realized what you are saying. Your above statement is wrong about
"all of the waves". Your above statement is correct about "net irradiance".
I'm not talking about "net" anything. I am talking about the component
forward and reflected waves which are easily proven to exist.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3880. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:55:06 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <404F80AA.388A3E2E@uci.edu>
Source record: 98653

Cecil Moore wrote:
>
> Old Ed wrote:
> > "Lossless resistance?" Would that be zero resistance,
> > or perhaps a negative resistance, as in the active part of
> > a tunnel diode's V-I characteristic?
> >
> > I am a career EE, with a couple of graduate EE degrees;
> > and this is something entirely new to me. Could you explain
> > this concept, and/or provide some references?
>
> How about an example? If L and C are lossless, then SQRT(L/C)
> will be lossless with a dimension of ohms, i.e. resistance.

Umm, isn't that an example of reactance? I assume you would have us
believe they are one in the same. BTW, not all forms of resistive loss
are "ohmic".

73, Jim AC6XG
73, Jim AC6XG

3881. atmospheric correction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:57:07 UTC
From: John Doe <me@here.com>
Message-ID: <c2nvf3$6d6$1@spnode25.nerdc.ufl.edu>
Source record: 98651

I'm using a line of site software to find an optimum tower height for my location to receive UHF broadcasts centered around 600MHz. This software has an atmospheric correction factor for the frequency you are trying to receive. They give a value of 1.333 for microwave, but don't give an exact frequency. Does anyone know how to find this factor for a specific frequency? The range for this factor is 0.1 - 5. 0.1 would correspond to a high frequency (microwave (light maybe)), and 5 would be a low frequency (vlf?).

3882. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 20:58:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2nvgs$3sl$1@hercules.btinternet.com>
Source record: 98652

> Cecil Moore wrote:
>
> > Reg, we have a clear example of where the high voltage part of the
> > antenna is not allowed to radiate (much). That would be a balanced
> > top hat. Not allowing the high voltage part of the antenna to radiate
> > leaves the high current part to do most of the radiating.
>
> Cecil,
>
> Reg makes a good point. We know that the same amplitude (less ohmic
> losses) of current travels the entire length of the antenna in both
> directions. The relative phase of forward and reverse currents simply
> makes the superposition of the two currents greater at one end than
> another. We might measure the standing wave current with an ammeter,
> but it is the traveling wave currents which radiate.
>
> 73, Jim AC6XG

==========

Jim, are you one of the crackpots who think that it's the voltage parts of the antenna which do the radiating which is proved by replacing the top portion of the antenna with a top hat which has a large capacitance so that the voltage has a greater effect. ;o)

Reg, G4FGQ

3883. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 21:06:51 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f839a$1_3@corp.newsgroups.com>
Source record: 98655

Gene Fuller wrote:
> I don't have to "prove" anything. Just set up the standard wave
> equations with the standard boundary conditions and the problem
> practically solves itself. The non-zero remaining waves are all moving
> in the same direction. I forgot to ask them if they realize that Cecil
> doesn't approve of such behavior.

You should have warned us that you were talking about NET waves and
NET energy transfer. I'm not discussing that at all. I am talking about
component waves and component energy transfer without which standing
waves cannot exist. Or maybe you can offer an example of standing waves
in the absence of at least two waves traveling in opposite directions.
If you can do that, I will admit defeat.

> I suppose this is an prime example of being seduced by "math models",
> but I believe that is a lesser fault than being seduced by Cecil's
> imaginary models.

It is indeed an example of being seduced by the NET math model. Please
transfer over to the component math model and rejoin the discussion.
Lots of interesting things are happening below the threshold of the
NET math model. The NET math model doesn't explain anything except
the NET results. If your bank account balance doesn't change from one
month to another, do you also assume that you have written no checks
and have no income for that month? Literally speaking, please get real!
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3884. Re: max power transfer theorem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 21:09:15 UTC
From: richardharrison@webtv.net
Message-ID: <13188-404F83FB-121@storefull-3255.bay.webtv.net>
Source record: 98657

Steve Nosko wrote:
"It is as simple as the fact that it is not internally resistance limited----."

We are discussing maximum power transfer which by definition is the condition in which all available power is delivered to the load. This condition requires equal resistances in source and load.

Maximum power transfer can be found by varying the resistance used as the load until the load resistance is found which generates the most heat. This assumes there is no reactance or other opposition to power other than that of the resistive type in the source and load.

Once you`ve found the load which extracts maximum power from the source, measure its resistance. That is also the resistance of your source.

In the Class-C amplifier, some of the source resistance it presents to the load is of the lossless variety. Were it all of the dissipative variety, just as much heat would be generated within the amplifier as within the load, UNDER MAXIMUM POWER TRANSFER CONDITIONS. Some of the internal resistance is the lossy kind. The final amplifying devices have almost full on or off states. There`s little transition, and the saturation voltage is low but not zero. The lossless variety of internal resistance comes from an average of the switched-off time of the amplifier.

My example presumed a 50-50 spllit between dissipative and lossless resistances in the Class-C amplifier. That made an efficiency of 66.7%. Not bad and not unusual. That`s the way it works, believe it or not.

Best regards, Richard Harrison, KB5WZI

3885. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 21:11:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2o0atgmr1@titan.btinternet.com>
Source record: 98656

```
" Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message
news:X3L3c.57479$Ri6.12468@lakeread04...
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:c2lpoj$d5l$1@hercules.btinternet.com...
> > > "The new megaphone being deployed to Iraq can operate at 145 decibels
> > > at 300 yards, according to American Technology, well above the normal
> > > threshold for pain."
> >
> > ==========================
> >
> > Yet another weapon of mass destruction in the hands of the US military,
> eh?
> >
> > All for sake of oil.
> >
> >
>
> Brit's can't throw too many rocks on this issue without breaking a few
> windows
> at home....
>
Agreed. But who cares. Bush has promised Blair a share of the oil. That is
if they are both around.
```

3886. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 21:25:18 UTC
From: Eric Oyen - N7ZZT <n7zzt@127.0.0.1>
Message-ID: <pan.2004.03.10.21.25.18.264420@127.0.0.1>
Source record: 98658

On Wed, 10 Mar 2004 19:38:44 +0000, Arnold wrote:

> On Wed, 10 Mar 2004 09:12:02 -0800, thatcher stood up and said:
>>
>> Unless there are the inevitable technological advances in BPL.
>
> The only technological advance in BPL will be when they abandon HF and
> move over to UHF/SHF. That's the only way they'll increase *speed*. Never
> assume bandwidth = speed.

The problem is, with greater speed, you need higher bandwidth. its one of
the basic laws behind digital theorems. the more data you need to throw
down a given channel, the wider that channel has to be. sure, compression
can keep that from growing very much, but, it will still inevitably grow.

why is it you think that HD broadcasts need 4X the spectrum space that a
standard television video channel needs?

DE N7ZZT
Phoenix, Arizona

--
the difference between intelligence and stupidity is that intelligence
has its limits.

3887. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 21:33:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f89ca$1_3@corp.newsgroups.com>
Source record: 98659

Jim Kelley wrote:
> Nowhere other than in Cecil's
> works will one find a description of waves reversing direction without
> reflecting from a discontinuity.

You have made that assertion so many times it has turned into a Big Lie.
Maybe you should reveal the agenda responsible for such unethical behavoir?

What I have said is that the *energy* involved in destructive interference
at a Z0-match point reverses direction. The waves are *destroyed* by the
destructive interference and the waves therefore cease to exist. So how could
destroyed waves possibly reverse direction? They cannot! Your assertions are
simply false. Perhaps you are confusing the energy in the cancelled (destroyed)
waves with the waves themselves? In any case, unless I accidentally mis-spoke
sometime, I have never said that cancelled waves reverse themselves. To say
that cancelled waves reverse themselves would be a ridiculous assertion.

The *energy* in the destroyed waves cannot be destroyed and we know that it
doesn't continue on toward the source. Therefore, the *energy* in the
destroyed waves changes directions and becomes constructive interference
flowing toward the load.

The *energy* in the cancelled (destroyed) reflected waves reverses directions
at the Z0-match. There is simply no other possibility since reflected energy
toward the source is eliminated by wave cancellation. All this is explained
on the Melles-Groit web page if you desire to comprehend. They say the "lost"
reflected energy is not lost at all and enhances the forward wave. How can
reflected energy enhance the forward wave without changing directions?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3888. Re: atmospheric correction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 21:34:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2o1ldamr1@sparta.btinternet.com>
Source record: 98660

"John Doe" <me@here.com> wrote in message
news:c2nvf3$6d6$1@spnode25.nerdc.ufl.edu...
> I'm using a line of site software to find an optimum tower height for my
> location to receive UHF broadcasts centered around 600MHz. This software
> has an atmospheric correction factor for the frequency you are trying to
> receive. They give a value of 1.333 for microwave, but don't give an
exact
> frequency. Does anyone know how to find this factor for a specific
> frequency? The range for this factor is 0.1 - 5. 0.1 would correspond to
a
> high frequency (microwave (light maybe)), and 5 would be a low frequency
> (vlf?).
>
==========

The apparent change in the Earth's radius tends to be independent of frequency. 1.33 is a typical average value. The same is usually quoted for VHF. It depends short-term more on conditions in the atmosphere and stratosphere..

Do what everybody else does and call it 1.3 It's not all that critical for system performance anyway.

3889. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 21:36:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404f8a8f$1_3@corp.newsgroups.com>
Source record: 98661

Jim Kelley wrote:
> BTW, not all forms of resistive loss are "ohmic".

The SQRT(L/C) of a lossless transmission line is certainly "ohmic".
Or are you willing to assert that the Z0 of coax is really j50 or
some such. May I suggest a good book on dimensional analysis?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3890. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 21:43:05 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <404F8BE9.B49FB91B@uci.edu>
Source record: 98662

Reg Edwards wrote:
>
> > Cecil Moore wrote:
> >
> > > Reg, we have a clear example of where the high voltage part of the
> > > antenna is not allowed to radiate (much). That would be a balanced
> > > top hat. Not allowing the high voltage part of the antenna to radiate
> > > leaves the high current part to do most of the radiating.
> >
> > Cecil,
> >
> > Reg makes a good point. We know that the same amplitude (less ohmic
> > losses) of current travels the entire length of the antenna in both
> > directions. The relative phase of forward and reverse currents simply
> > makes the superposition of the two currents greater at one end than
> > another. We might measure the standing wave current with an ammeter,
> > but it is the traveling wave currents which radiate.
> >
> > 73, Jim AC6XG
>
> ============================
>
> Jim, are you one of the crackpots who think that it's the voltage parts of
> the antenna which do the radiating which is proved by replacing the top
> portion of the antenna with a top hat which has a large capacitance so that
> the voltage has a greater effect. ;o)
> ---
> Reg, G4FGQ

Hi Reg,

Were it not for this group, I would never have known the full extent of
my crackpottedness! My colleagues and associates have been keeping it a
secret from me all these years evidently. With that in mind, yes.
Nevermind Farady. The size of the hat should indeed determine the size
of the effect. I wear a 7 3/4.

73, Jim AC6XG

3891. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 21:51:10 UTC
From: richardharrison@webtv.net
Message-ID: <29111-404F8DCE-81@storefull-3257.bay.webtv.net>
Source record: 98664

Jim, AC6XG wrote:
"Ummm, isn`t that an example of reactance?"

Terman on page 88 of his 1955 edition says:
"The characteristic impedance Zo is the ratio of voltage to current in an individual wave---; it is also the impedance of a line that is infinitely long or the impedance of a finite length of line when ZL = Zo. It will be noted that at radio frequencies the characteristic impedance is a resistance that is independent of frequency."

Isn`t that succinct and beautiful? Wish my thoughts were as clear and true. We lost a treasure when he passed away.

Best regards, Richard Harrison, KB5WZI

3892. Re: FS 19 Strand 1/4" OD All Copper Antenna Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 22:00:35 UTC
From: marklinbuyer@yahoo.com
Message-ID: <9075af62.0403101400.f684cad@posting.google.com>
Source record: 98663

I think that is the type of wire they use on ships that runs over the tops of the masts for end-fed long wire antennas. If you paid only $2 a foot for it you got a hell of a bargain. I am not a marine radio guy, but as I recall, the surface area of that type wire is about 14 or 15 square inches per linear foot.

rfpexec@yahoo.com (Bill Hansen) wrote in message news:<676011a0.0403092150.44735f34@posting.google.com>...
> I have 90 feet of NEW 19 strand 1/4" OD all copper antenna wire listed on eBay.
>
> Click here to see a picture of it:
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3083121559
>
> If you have any questions, please email me.
>
> Thanks,
>
> Bill

3893. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 22:07:15 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <404F9193.20588366@uci.edu>
Source record: 98665

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > Nowhere other than in Cecil's
> > works will one find a description of waves reversing direction without
> > reflecting from a discontinuity.
>
> You have made that assertion so many times it has turned into a Big Lie.
> Maybe you should reveal the agenda responsible for such unethical behavoir?

I guess you better reaveal it, because I have no idea what you're trying
to accuse me of.

> The *energy* in the cancelled (destroyed) reflected waves reverses directions
> at the Z0-match.

You just accused me of lying about your belief in that notion.

73, Jim AC6XG

3894. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 22:09:08 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <404F9204.5CAC3E31@uci.edu>
Source record: 98666

Cecil Moore wrote:
>
> Jim Kelley wrote:
> > BTW, not all forms of resistive loss are "ohmic".
>
> The SQRT(L/C) of a lossless transmission line is certainly "ohmic".

You don't seem to know what the term "ohmic" means.

73, Jim AC6XG

3895. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 22:24:53 UTC
From: Arnold <pigs@pink.floyd>
Message-ID: <VAM3c.61294$%d3.4804539@twister.southeast.rr.com>
Source record: 98667

On Wed, 10 Mar 2004 14:25:18 -0700, Eric Oyen - N7ZZT stood up and said:
>
> The problem is, with greater speed, you need higher bandwidth.
>

You're right, of course, and my previous post was a mistype. I meant to
say never assume *broadband* = speed.

3896. Re: atmospheric correction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 22:49:57 UTC
From: richardharrison@webtv.net
Message-ID: <22289-404F9B95-73@storefull-3254.bay.webtv.net>
Source record: 98570

John Doe wrote:
"They gave a value of 1.333 for microwave, but don`t give an actual frequency."

It`s true that there is a slight difference in the distances to the optical and radio horizons. It`s not important because the effective distance is inexact and varies with changes in atmospheric conditions. For radio horizon, the geometric model is usually an earth 4/3 tha actual. That`s where the 1.333 comes from. It would mean the earth appears under normal conditions to be a little flatter than it is. Radio range is increased a little over estimates based on a true geometric model. Since a still atmosphere can cause layering of air temperatures, refraction occurs sometimes in the early morning which bends radio waves away from the earth. To account for these misfortunes, designers of sensitive radio services sometimes use an earth model which is only 2/3 the size of the actual earth so contact is kept under lousy line-of-sight conditions.

Using the customary 4/3 smooth earth estimate, an easily remembered formula emerges:
D = sq.rt. 2H

D is the distance to the horizon in miles.
H is the height of the antenna in feet.

You have an antenna at 200 feet.
The sq rt of 400 is 20 miles.

20 miles is the distance over a bare landscape that you can communicate with an antenna at about ground level. If both antennas were at 200 feet, you might be able to communicate 40 miles at line-of-sight frequencies. The estimate is usually very good.

Best regards, Richard Harrison,KB5WZI

3897. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 22:55:22 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <6u6v40trsgs11ni9sl17mceqlm399ufum4@4ax.com>
Source record: 98668

On Wed, 10 Mar 2004 13:43:05 -0800, Jim Kelley <jwkelley@uci.edu> wrote:

>Reg Edwards wrote:
>>
>> > Cecil Moore wrote:
>> >
>> > > Reg, we have a clear example of where the high voltage part of the
>> > > antenna is not allowed to radiate (much). That would be a balanced
>> > > top hat. Not allowing the high voltage part of the antenna to radiate
>> > > leaves the high current part to do most of the radiating.
>> >
>> > Cecil,
>> >
>> > Reg makes a good point. We know that the same amplitude (less ohmic
>> > losses) of current travels the entire length of the antenna in both
>> > directions. The relative phase of forward and reverse currents simply
>> > makes the superposition of the two currents greater at one end than
>> > another. We might measure the standing wave current with an ammeter,
>> > but it is the traveling wave currents which radiate.
>> >
>> > 73, Jim AC6XG
>>
>> ============================
>>
>> Jim, are you one of the crackpots who think that it's the voltage parts of
>> the antenna which do the radiating which is proved by replacing the top
>> portion of the antenna with a top hat which has a large capacitance so that
>> the voltage has a greater effect. ;o)
>> ---
>> Reg, G4FGQ
>
>Hi Reg,
>
>Were it not for this group, I would never have known the full extent of
>my crackpottedness! My colleagues and associates have been keeping it a
>secret from me all these years evidently. With that in mind, yes.
>Nevermind Farady. The size of the hat should indeed determine the size
>of the effect. I wear a 7 3/4.
>
>73, Jim AC6XG

Have you guys ever considered that since the infinitesimally short dipole
radiates only 4 percent less than a resonant dipole, the only reason for having
any longer length than infinitesimally short is to make it resonant? So what do
you think the relation between voltage and current is in the short dipole? Does

that bring to mind whether the max radiation occurs at the max voltage or max current portion of the dipole?

Walt, W2DU

3898. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 22:55:27 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <404F9CDF.4B251B8@uci.edu>
Source record: 98571

Richard Harrison wrote:
>
> Jim, AC6XG wrote:
> "Ummm, isn`t that an example of reactance?"
>
> Terman on page 88 of his 1955 edition says:
> "The characteristic impedance Zo is the ratio of voltage to current in
> an individual wave---; it is also the impedance of a line that is
> infinitely long or the impedance of a finite length of line when ZL =
> Zo. It will be noted that at radio frequencies the characteristic
> impedance is a resistance that is independent of frequency."
>
> Isn`t that succinct and beautiful? Wish my thoughts were as clear and
> true. We lost a treasure when he passed away.

Absolutely. If only it were as relevant as it is succinct and
beautiful. But, that's a little out of Terman's hands at this point.
;-)

73, Jim AC6XG

3899. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 22:57:01 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <197v409b5jebhsh4b7ctppdlg0j1orekrv@4ax.com>
Source record: 98569

On Wed, 10 Mar 2004 14:34:38 -0600, Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
wrote:

>Reg Edwards wrote:
>> Cec, who's Jerry Sevick. I don't seem to have a copy of his works around me
>> at present.
>
>He's accepted by most as *the* ham balun guru. Some disagree.

Yeah, I'm one who disagrees!

Walt, W2DU

3900. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 23:20:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2o7sk$1nl$1@titan.btinternet.com>
Source record: 98572

> He's accepted by most as *the* ham balun guru. Some disagree.
=======================

How can anybody make himself a guru about such a simple, inactive, mundane device as a balun?

Now if it was a conjugate match!

3901. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 23:26:14 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404fa444$1_8@corp.newsgroups.com>
Source record: 98573

Jim Kelley wrote:
> Cecil Moore wrote:
>>The *energy* in the cancelled (destroyed) reflected waves reverses directions
>>at the Z0-match.
>
> You just accused me of lying about your belief in that notion.

If you don't understand the difference between saying that cancelled
waves reverse direction and saying that the energy in the cancelled
waves reverses direction, you are beyond help.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3902. Re: atmospheric correction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 23:29:31 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c2o8cs$1vu773$1@ID-225206.news.uni-berlin.de>
Source record: 98574

There is some "ducting" that occurs along the earth, as the density gradient changes, so you can receive signals over the horizon, along cold fronts is unique too. Over water is better. One station I picked up was about 175 miles away, night, tended to be sporadic, but it was UHF channel 42 and a TV set was the receiver.

"John Doe" <me@here.com> wrote in message
news:c2nvf3$6d6$1@spnode25.nerdc.ufl.edu...
> I'm using a line of site software to find an optimum tower height for my
> location to receive UHF broadcasts centered around 600MHz. This software
> has an atmospheric correction factor for the frequency you are trying to
> receive. They give a value of 1.333 for microwave, but don't give an
exact
> frequency. Does anyone know how to find this factor for a specific
> frequency? The range for this factor is 0.1 - 5. 0.1 would correspond to
a
> high frequency (microwave (light maybe)), and 5 would be a low frequency
> (vlf?).
>
>

3903. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 23:38:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404fa713_8@corp.newsgroups.com>
Source record: 98575

Jim Kelley wrote:

> Cecil Moore wrote:
>>The SQRT(L/C) of a lossless transmission line is certainly "ohmic".
>
> You don't seem to know what the term "ohmic" means.

From the IEEE dictionary: "ohmic contact ... one that has a linear voltage/current characteristic throughout its entire operating range." That certainly seems to describe the characteristic impedance of a transmission line which has a linear voltage/current characteristic throughout its entire specified operating range even though that Z0 is non-dissipative.

I'm assuming anything with the dimensions of "ohms" is "ohmic" but I could be wrong. Do you have a reference otherwise?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3904. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 23:44:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404fa89c$1_8@corp.newsgroups.com>
Source record: 98576

Walter Maxwell wrote:

> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>He's accepted by most as *the* ham balun guru. Some disagree.
>
> Yeah, I'm one who disagrees!

Well, wait until you find out exactly what the disagreement was.
I said a balanced set of elevated radials or a balanced top hat
doesn't radiate much RF. What do you say?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3905. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-10 23:51:24 UTC
From: Wes Stewart <n7ws@_arrl.net>
Message-ID: <p9av40ldjcs6l2pp06k7i615b8t87jc2gd@4ax.com>
Source record: 98577

On Wed, 10 Mar 2004 22:57:01 GMT, Walter Maxwell <w2du@iag.net> wrote:

|On Wed, 10 Mar 2004 14:34:38 -0600, Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
|wrote:
|
|>Reg Edwards wrote:
|>> Cec, who's Jerry Sevick. I don't seem to have a copy of his works around me
|>> at present.
|>
|>He's accepted by most as *the* ham balun guru. Some disagree.
|
|Yeah, I'm one who disagrees!

But he is certainly prolific. Can't pick up a magazine without
another same-o-same-o article. Latest in Feb. "High Frequency
Electronics."

Wes

3906. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 00:10:32 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <404FAE78.F807383E@uci.edu>
Source record: 98578

Walter Maxwell wrote:
> Have you guys ever considered that since the infinitesimally short dipole
> radiates only 4 percent less than a resonant dipole, the only reason for having
> any longer length than infinitesimally short is to make it resonant?

The total field radiated should be proportional to the product of the
voltage and the current applied to the radiator. The size and shape of
the radiator will determine the impedance and radiation pattern.
Neither issue speaks to the "exact location of the point of max
radiation". Any point along the radiator in which traveling wave
currents are flowing will radiate. The amount of radiation emanating
from any given point would be proportional to the rate at which energy
traverses that point.

> Does
> that bring to mind whether the max radiation occurs at the max voltage or max
> current portion of the dipole?

The existance of a max radiation point along a radiator should first be
shown before we begin to argue about its exact location. In my opinion.

73, Jim AC6XG

3907. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 00:33:07 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <7tO3c.222$ft4.3308@attbi_s54>
Source record: 98579

"Walter Maxwell" <w2du@iag.net> wrote in message
news:6u6v40trsgs11ni9sl17mceqlm399ufum4@4ax.com...
> On Wed, 10 Mar 2004 13:43:05 -0800, Jim Kelley <jwkelley@uci.edu> wrote:
>
> >Reg Edwards wrote:
> >>
> >> > Cecil Moore wrote:
> >> >
> >> > > Reg, we have a clear example of where the high voltage part of the
> >> > > antenna is not allowed to radiate (much). That would be a balanced
> >> > > top hat. Not allowing the high voltage part of the antenna to
radiate
> >> > > leaves the high current part to do most of the radiating.
> >> >
> >> > Cecil,
> >> >
> >> > Reg makes a good point. We know that the same amplitude (less ohmic
> >> > losses) of current travels the entire length of the antenna in both
> >> > directions. The relative phase of forward and reverse currents
simply
> >> > makes the superposition of the two currents greater at one end than
> >> > another. We might measure the standing wave current with an ammeter,
> >> > but it is the traveling wave currents which radiate.
> >> >
> >> > 73, Jim AC6XG
> >>
> >> ============================
> >>
> >> Jim, are you one of the crackpots who think that it's the voltage parts
of
> >> the antenna which do the radiating which is proved by replacing the top
> >> portion of the antenna with a top hat which has a large capacitance so
that
> >> the voltage has a greater effect. ;o)
> >> ---
> >> Reg, G4FGQ
> >
> >Hi Reg,
> >
> >Were it not for this group, I would never have known the full extent of
> >my crackpottedness! My colleagues and associates have been keeping it a
> >secret from me all these years evidently. With that in mind, yes.
> >Nevermind Farady. The size of the hat should indeed determine the size
> >of the effect. I wear a 7 3/4.

> >
> >73, Jim AC6XG
>
> Have you guys ever considered that since the infinitesimally short dipole
> radiates only 4 percent less than a resonant dipole, the only reason for
having
> any longer length than infinitesimally short is to make it resonant?

Now that makes radiation efficiency per unit length hard to calculate, but
it does provoke thought regarding antenna designs
based on wavelength dimensions. Input impedance on a parallel circuit based
radiators gathers momentum in importance.
Art

So what do
> you think the relation between voltage and current is in the short dipole?
Does
> that bring to mind whether the max radiation occurs at the max voltage or
max
> current portion of the dipole?
>
> Walt, W2DU

3908. Re: Mobile antenna for 1296 MHz?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 00:51:41 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <404fba58_4@news1.prserv.net>
Source record: 98580

We have been using Larsen 1296 antennas for many years, but they do not presently appear in their commercial catalog. Contact the HRO store in Mountain View and see if anyone remembers the actual model number or better yet, if they still have any in stock. They were NMO mount, and were either 5/8 over 1/2 or 1/2 over 1/2 wave, about 12" tall overall, 4 or 5 turn coil in the middle.

--
W5VPQ
Crazy George
Remove N O and S P A M imbedded in return address
"tad danley" <nospam@atsbcglobal.net> wrote in message
news:ptD3c.27742$PE4.2866@newssvr24.news.prodigy.com...
> I'm looking for a commercial mobile antenna (vertical) for 1296 MHz.
> Would prefer something with a little gain over a 1/4 wave, but I don't
> want anything taller than my 1/4 wave for 2 meters and I don't need
> anything that is multiband. Something like a base loaded 5/8 wave or
> even 5/8 over 5/8 would be fine.
>
> Everything I've seen on the commercial market is too tall for my
> application and has too much gain, or is too tall because it is multiband.
>
> Thanks in advance and 73,
>
> --
> * Do NOT use Reply *
>
> Reply to K3TD via arrl dot net
>
> Tad, K3TD
>

3909. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 00:56:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <erdv40tvi9mtum2bpomtg76ppirbt968m3@4ax.com>
Source record: 98581

On Thu, 11 Mar 2004 00:33:07 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

> Input impedance on a parallel circuit based
>radiators gathers momentum in importance.

Hi Art,

Only if 0.02% to 5% is all you need. Such is the legacy of eh designs
in comparison to full size antennas: more than 30dB down (0.1%
efficient if one is to be generous).

73's
Richard Clark, KB7QHC

3910. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 01:01:21 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403101701.48cac063@posting.google.com>
Source record: 98582

Andy, you make a very good case regarding the ARRL position
Instead of viewing the FCC as an adversary we should strengthen
the position taken by the FCC regarding existing interference
regulations
If our position is sound with respect to widespread interference
then we should stand with the FCC as an friend instead of
consistently crying wolf in a know all fashion. With the hobby
going belly up with aging membership our powder should be kept dry
for a time that really counts. Tho not in our lifetime (20 years
perhaps)I would visulise that ham bands will really get reduced in
size as the difference between CB users and hams is perceived as
slight to nothing. The day will come when there is a tornado and the
ham community will be rendered useless because of augumentive behavior
and the public will see us as we really are.
Art

pAndy Cowley <andy.cowley@uwe.ac.uk> wrote in message news:<HuDBqw.Dx7@bath.ac.uk>...
> Art Unwin KB9MZ wrote:
>
> > Why doesn't the ARRL offer BPL people the code portions of amateur
> > bands.
> > With removal of the code from exams around the World and the aging of
> > the hobby
> > being generous with an offer will help the hobby to survive a bit
> > longer. If the interference created is not to the common good then BPL
> > goes out the window, if the interference does NOT occur then the
> > common good should benefit.
> > We have to recognise that the hobby is not attracting sufficient new
> > members as more auguements occur and as computors become the prime
> > vehicle for communication via forums such as this.
> > Regards
> > Art
>
> Put your asbestos suit on, Art. ;-)
>
> The BPL or PLC problem will be temporary IMHO. It just doesn't
> make economic sense to install all that stuff for a _shared_
> speed of a few megabits a second, which is all that can be realised
> at HF. Share that out among a hundred or more users and suddenly
> it's not really all that fast. During the first uptake when there
> are few users it will look fast, but as the number of subscribers
> gets up to economic levels it'll slooow down to modem speeds. In
> most areas users will be predominantly either business or residential
> so the apparent speed gains from diversity of usage patterns will

> not be realisable.
>
> ADSL and wireless will continue to follow Moore's law for speed and BPL
> will be up against Nyquist limits in short order. Our expectations and
> appetite for network bandwidth will continue to grow for the foreseeable
> future. Once the consumers start to realise that the BPL system is no
> longer speed competitive they will melt away and the BPL providers will
> shut up shop.
>
> A technology with a very short life, I certainly wouldn't recommend
> shares in that technology for the long term. ;-)
>
> vy 73
>
> Andy Cowley

3911. Re: Wire Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 01:26:55 UTC
From: Matthew&Wendy <mapwam@frontiernet.net>
Message-ID: <zfP3c.298$OT7.180@news01.roc.ny>
Source record: 98583

Thanks for the explanations and the help. I really appreciate it. And hopefully, I can get my hands on a better SW radio soon.

Matthew

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.605 / Virus Database: 385 - Release Date: 3/1/2004

3912. High Sierra antenna FS/FT

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 01:40:37 UTC
From: STEVE TROOK <STROOK@OPTONLINE.NET>
Message-ID: <psP3c.16033$%e7.3755138@news4.srv.hcvlny.cv.net>
Source record: 98584

Near new High sierra 6-80 meter screwdriver type antenna. complete with up down controller box, bracket and whip. Fully tunes to all bands manually. Comes with 100' of coax and power leads. Was originally bought for base use. Will sell outright or trade. Bought new over $600.

view the antenna here. www.cq73.com an be a mobile or base.

Please contact me at strook@optonline,net

3913. Re: FM antenna recommendation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 01:56:19 UTC
From: Mark Atanovich <m.atanovich@cox.net>
Message-ID: <9HP3c.4501$Nj.3360@fed1read01>
Source record: 98585

The towers I'm looking for are on South Mountain.

"John Smith" <pani@yahoo.com> wrote in message
news:c2kim8$1uei1f$1@ID-225206.news.uni-berlin.de...
> Radio Shack used to have some cheap directional antennas that would pick up
> FM band.
> In Phoenix, the transmitter site on the south side on the hill is full of
> IM, a dirty site, so you may have some selectivity problems if you have to
> shoot across or near it.
>
> "Mark Atanovich" <m.atanovich@cox.net> wrote in message
> news:1Ia3c.93$Nj.58@fed1read01...
> > Greetings,
> > I live in Phoenix, AZ greater metro area and am looking for a directional
> > antenna to pick up FM stations only 20 or so miles away but obstructed by
> > the local terrain (Camelback & Mummy Mts. if you're familiar with the
> area).
> > I currently have a Channel Master 4248 on a 20 ft mast for HDTV and it
> > actually does a fairly good job of picking up the local radio stations
> > except for the PBS affililate. I'm looking for a low cost (<$25)
> directional
> > antenna that I could simply mast mount along the the CM.
> >
> > On a related note, if I were to stack dissimilar antennas, what's the best
> > way phase align them? I'm assuming I would line up the driven elements.
> >
> > Thx.
> >
> >
>
>

3914. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 02:02:41 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <404FC8DC.5070204@get.lost>
Source record: 98586
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

Barry OGrady wrote:

> What needs to be weighed up is the cost/benefit ratio.
> If BPL can benefit a huge number of people while inconveniencing a few amateurs
> then it is justified.

Funny, I haven't heard this type of rationalization since Berlin wall
fell down. Should we all start wearing red star berets now or later?

> Remember that amateur radio is a hobby that unjustifiably occupies
> valuable radio spectrum.

Ah, sort of like your post?

WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

3915. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 02:18:09 UTC
From: "Tony P." <kd1s@nospamplease.verizon.reallynospam.net>
Message-ID: <MPG.1ab9966fb4bdd9198981e@news.verizon.net>
Source record: 98587
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

In article <2cgv40plruna52lu189bfk0vgaij0lt0t0@4ax.com>,
god_freee_jones@hotmail.com says...
> On Wed, 10 Mar 2004 05:46:09 GMT, Zoran Brlecic <...WA7AA...@get.lost> wrote:
>
> >Tony P. wrote:
> >
> >> We really need to fight this and make them do the right thing. And it's
> >> a bit like un-ringing the bell. There are a whole lot of transceivers
> >> out there that put out anywhere from 50W to 200W right out of the box.
> >> And a whole lot more amps that kick up to the 1.5KW range. Granted, the
> >> FCC knows who and where every ham in the U.S. happens to be, but they
> >> don't know exactly what gear you've got do they? I mean I'm an extra
> >> without an HF rig right now.
> >>
> >> And when you think about it, a properly placed 5W transmitter will do
> >> stuttering wonders for BPL.
> >>
> >> BPL needs to be killed and pronto.
> >
> >
> >The FCC tune has already changed. Read the article at:
> >
> >http://www.arrl.org/news/stories/2004/03/09/1/?nc=1
> >
> >Notice the FCC statement "...Powell responded to the question by saying
> >the FCC would not let BPL interfere with critical services."
> >
> >Now the protection appears to have migrated to "critical" services only,
> >and the burden of proof is thus shifted to amateur radio to show how our
> >service is "critical" and worthy of protection against the
> >best-thing-since-sliced-bread BPL.
> >
> >And they are about to lock up a goddamn housewife while these vultures
> >roam unimpeded...
> >
> >
> > 73 ... WA7AA
>
> What needs to be weighed up is the cost/benefit ratio.
> If BPL can benefit a huge number of people while inconveniencing a few amateurs
> then it is justified. Remember that amateur radio is a hobby that unjustifiably occupies
> valuable radio spectrum.

You are just the kind of sheep that big business loves. BPL as it stands is a BAD idea. The interference potential isn't just to amateur radio but a host of other services.

3916. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 02:58:01 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <ZAQ3c.97263$aH3.2951275@bgtnsc04-news.ops.worldnet.att.net>
Source record: 98588

Cecil,

Who said anything about distinguishing net waves or component waves? I
was talking about a complete solution.

If you read what I wrote you will note that I said any purported waves
traveling in the reverse direction have zero amplitude. In other words
they do not exist.

If you choose to create any number of fictitious components that all
cancel, go right ahead. No professional does it that way.

You appear to misunderstand that it is essentially impossible to do
anything with all of your interfering component waves except wave your
hands and flap your gums about them. If you really want to get
quantitative answers then it is conventional to use ordinary
electromagnetic theory starting with Maxwell's equations. No fictitious
canceling component waves are needed as input, nor do they arise as
output from a correct analytical treatment.

Really, this is standard textbook stuff. If you would like exact
references by title and page I will be happy to provide them.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I don't have to "prove" anything. Just set up the standard wave
>> equations with the standard boundary conditions and the problem
>> practically solves itself. The non-zero remaining waves are all moving
>> in the same direction. I forgot to ask them if they realize that Cecil
>> doesn't approve of such behavior.
>
>
> You should have warned us that you were talking about NET waves and
> NET energy transfer. I'm not discussing that at all. I am talking about
> component waves and component energy transfer without which standing
> waves cannot exist. Or maybe you can offer an example of standing waves
> in the absence of at least two waves traveling in opposite directions.
> If you can do that, I will admit defeat.
>
>> I suppose this is an prime example of being seduced by "math models",
>> but I believe that is a lesser fault than being seduced by Cecil's

>> imaginary models.
>
>
> It is indeed an example of being seduced by the NET math model. Please
> transfer over to the component math model and rejoin the discussion.
> Lots of interesting things are happening below the threshold of the
> NET math model. The NET math model doesn't explain anything except
> the NET results. If your bank account balance doesn't change from one
> month to another, do you also assume that you have written no checks
> and have no income for that month? Literally speaking, please get real!

3917. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 03:02:48 UTC
From: Minnie Bannister <GoonButNotForgotten@myob.net>
Message-ID: <404FD6D8.3000300@myob.net>
Source record: 98589
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

Amateur radio is a hobby, yes -- but it is a hobby that also provides
training for services to the public. E.g., search and rescue operations
(e.g., much of the shuttle debris was in areas with no cell-phone or
regular two-way radio service), emergency communications when major
power outages occur, etc., etc.

Alan AB2OS

On 03/10/04 08:35 pm Barry OGrady put fingers to keyboard and launched
the following message into cyberspace:

> What needs to be weighed up is the cost/benefit ratio.
> If BPL can benefit a huge number of people while inconveniencing a few amateurs
> then it is justified. Remember that amateur radio is a hobby that unjustifiably occupies
> valuable radio spectrum.

3918. Re: Compact VHF fox hunting antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 03:12:51 UTC
From: Stevens <stevens@stevens.net>
Message-ID: <b7mv4098sb2kktj188il2tgicptnfk3luo@4ax.com>
Source record: 98590

Build Moxen Rectangle. Search Google for "moxen calculator".
KF

On Wed, 10 Mar 2004 16:41:20 GMT, "George" <look@signature_to.reply>
wrote:

>Is anyone aware of a small directional antenna that is useful for direction
>finding at VHF? My understanding is that Doppler antennas work only while
>moving (true?) and what I need is a directional antenna that can be used
>while at rest. Low efficiency and relatively broad main lobe are OK as long
>as physical size is small.
>
>Thanks,
>George K6GW
>
>
>
>

3919. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 03:22:31 UTC
From: Hank Oredson <horedson@att.net>
Message-ID: <XXQ3c.97334$aH3.2953648@bgtnsc04-news.ops.worldnet.att.net>
Source record: 98591
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

"Barry OGrady" <god_freee_jones@hotmail.com> wrote in message
news:2cgv40plruna52lu189bfk0vgaij0lt0t0@4ax.com...
> On Wed, 10 Mar 2004 05:46:09 GMT, Zoran Brlecic <...WA7AA...@get.lost>
wrote:
>
> >Tony P. wrote:
> >
> >> We really need to fight this and make them do the right thing. And it's
> >> a bit like un-ringing the bell. There are a whole lot of transceivers
> >> out there that put out anywhere from 50W to 200W right out of the box.
> >> And a whole lot more amps that kick up to the 1.5KW range. Granted, the
> >> FCC knows who and where every ham in the U.S. happens to be, but they
> >> don't know exactly what gear you've got do they? I mean I'm an extra
> >> without an HF rig right now.
> >>
> >> And when you think about it, a properly placed 5W transmitter will do
> >> stuttering wonders for BPL.
> >>
> >> BPL needs to be killed and pronto.
> >
> >
> >The FCC tune has already changed. Read the article at:
> >
> >http://www.arrl.org/news/stories/2004/03/09/1/?nc=1
> >
> >Notice the FCC statement "...Powell responded to the question by saying
> >the FCC would not let BPL interfere with critical services."
> >
> >Now the protection appears to have migrated to "critical" services only,
> >and the burden of proof is thus shifted to amateur radio to show how our
> >service is "critical" and worthy of protection against the
> >best-thing-since-sliced-bread BPL.
> >
> >And they are about to lock up a goddamn housewife while these vultures
> >roam unimpeded...
> >
> >
> >
> > 73 ... WA7AA
>
> What needs to be weighed up is the cost/benefit ratio.
> If BPL can benefit a huge number of people while inconveniencing a few
amateurs
> then it is justified. Remember that amateur radio is a hobby that

unjustifiably occupies
> valuable radio spectrum.

Well, guess you are not a US Radio Amateur, or you would
know that Amateur Radio is not a hobby, but is a service.

If you ARE a ham and live in the US, please go read Part 97 again.

--

... Hank

http://horedson.home.att.net
http://w0rli.home.att.net

3920. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 04:06:30 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <i9pv40pt1gq5uck9u9joicvo7tkevsdrrc@4ax.com>
Source record: 98592

On Wed, 10 Mar 2004 12:42:53 +0100, Jeppe <no@spam.com> wrote:

>On Tue, 09 Mar 2004 15:48:19 -0600, Cecil Moore
><Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>"The new megaphone being deployed to Iraq can operate at 145 decibels
>>at 300 yards, according to American Technology, well above the normal
>>threshold for pain."
>
>Not only that. It will produce permanent hearing loss in less than a
>second on at least 50% of the people exposed.
>
>But, of course, this contraption had to come sooner or later in a
>country that authorizes the use of electrical torture equipment in
>prisons and court rooms (i.e. the so-called "stun belt")
>
>I am glad that those peculiar Americans are not teaching my country
>democracy yet.
>
>The safety limit for noise is 85 dBa (EU) / 90 dBa (US) with 8 hours
>exposure. The relationship between exposure time and sound energy is
>inversely proportional. The safety limit for impulse noise is 140 dBa.
>
>Jeppe
Your right Jeppe, instead of using the NON-LETHAL stun gun we should
just shoot folks to subdue them.

3921. Re: mobile ant base voltage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 04:10:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404fe6f1$1_4@corp.newsgroups.com>
Source record: 98593

Bill Turner wrote:
> On Wed, 10 Mar 2004 14:37:30 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Bill, the voltage at the END of the whip and at the BASE of the whip
>>is not all that different for 8 foot whips used on 75m. That's why
>>the SGC-230 doesn't have a coax connector on its output and instead
>>has a porcelain insulator capable of withstanding thousands of volts.
>
> That's true if you use a tuner like the SGC, which is separate from the
> whip itself. I'm speaking of the classic whip with loading at either
> the base or center, and fed at the bottom of the whip, BELOW the loading
> coil. On those, the voltage at the base is quite low, relatively.

True, but irrelevant to the "March 2004 page 34 QST article" which is
the original subject.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3922. Re: Comet Dual Bander question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 04:16:44 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <6jpv40hi36ilhd3gm2aufq6gc2ij06vgpl@4ax.com>
Source record: 98594

On Tue, 09 Mar 2004 20:22:42 -0700, Dan <lists@elp.rr.com> wrote:

>
>Note SBB%= SBB5
>
>On Tue, 09 Mar 2004 20:21:46 -0700, Dan <lists@elp.rr.com> wrotd:
>
>>I have a SBB% Comet mobile dual band antenna.. I have lost the mobile
>>mount so borrowed a friedns Larsen mag mount (239 type).. anyway.. the
>>comet fails badly seems like a dead short. Went to a buddy's house
>>that has a comet SBB@ AND a comet mount.. My SBB% works great in his
>>mount ..
>>
>>Does anyone know does the comet dual band mobile REQUIRE I use a comet
>>maount??
>>
>>seems unlikely but we did a number of test.. we see a great report and
>>a difference I would expect between my SBB% (5/8) and his SBB@ (1/4)
>>wave.. so it does work great as long as I use the COmet mount..
>>
>>can anyone advise??
>>thanks
If you have an ohm meter or continuity checker verify that the center
conductor and ground are not shorted then check for continuity between
the connector center conductor & mount center conductor and same with
the shield. Are there any 'flat spots' on the cable? If it was routed
in such a manner that a door or trunck lip repeatedly crushed the
cable when opening and closing it could cause the shield & inner
conductor to short - worst case and it would have to be pretty well
pinched but still possible. I use a Larsen antenna on a Diamond mount
with no problems whatsoever; and many folks mix & match antennas and
mounts with no ill effect - there is no inherent imcompatability
between brands as long as the connectors are of a matching type
(PL-259 to S0239, NMO male to NMO female etc).

3923. Re: Compact VHF fox hunting antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 04:19:47 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <d5qv405ucvibkvgmts1gpc7kn1psor1llu@4ax.com>
Source record: 98595

On Wed, 10 Mar 2004 22:12:51 -0500, Stevens <stevens@stevens.net>
wrote:

>Build Moxen Rectangle. Search Google for "moxen calculator".
>KF
>
>On Wed, 10 Mar 2004 16:41:20 GMT, "George" <look@signature_to.reply>
>wrote:
>
>>Is anyone aware of a small directional antenna that is useful for direction
>>finding at VHF? My understanding is that Doppler antennas work only while
>>moving (true?) and what I need is a directional antenna that can be used
>>while at rest. Low efficiency and relatively broad main lobe are OK as long
>>as physical size is small.
>>
>>Thanks,
>>George K6GW
>>
>>
>>
>>
George,
You can find a Moxon at this site, as well as a ton of other great
antenna info.
http://www.cebik.com/radio.html

Howard

3924. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 04:43:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <404fee90_4@corp.newsgroups.com>
Source record: 98596

Gene Fuller wrote:
> If you read what I wrote you will note that I said any purported waves
> traveling in the reverse direction have zero amplitude. In other words
> they do not exist.

So you disagree with "Wave Mechanics of Transmission Lines, Part 3:"
by S. R. Best, QEX Nov/Dec 2001?

Your statement denies reality. In the following system, 178 joules/sec
are rejected by the load and thus flow back toward the source. You can
measure it with a wattmeter. The very first thing you need to prove is
that standing waves can exist without two waves flowing in opposite
directions. Anything short of that proof is just handwaving and gum
flapping on your part.

278W forward-->
100W XMTR---50 ohm feedline---x---1/2WL 450 ohm feedline---50 ohm load
<--178W reflected

> You appear to misunderstand that it is essentially impossible to do
> anything with all of your interfering component waves except wave your
> hands and flap your gums about them.

If that is beyond your comprehension, just say so but, in reality, those
interfering component waves obey the laws of physics as explained in _Optics_,
by Hecht and on the Melles-Groit web page:

http://www.mellesgriot.com/products/optics/oc_2_1.htm

"Clearly, if the wavelength of the incident light and the thickness of the
film are such that a phase difference exists between reflections of p, then
REFLECTED WAVEFRONTS INTERFERE DESTRUCTIVELY, and overall reflected intensity
is a minimum. If the TWO REFLECTIONS are of equal amplitude, then this amplitude
(and hence intensity) minimum will be ZERO.

In the absence of absorption or scatter, the principle of CONSERVATION OF
ENERGY indicates all "lost" reflected intensity will appear as ENHANCED
INTENSITY [constructive interference] in the transmitted beam."

That's pretty clear - 100% destructive interference between the two rearward-
traveling reflected wave components - 100% of the energy involved in the destructive
interference is not lost and joins the forward-traveling wave since it has no
other possible direction.

FYI, the equations governing the irradiance involving a perfect non-glare
thin film are: Ir1+Ir2-2*SQRT(Ir1*Ir2) = reflected irradiance = 0 and
If1+If2+2*SQRT(If1*If2) = total forward irradiance Page 388 of _Optics_.

--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3925. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 05:23:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8mtv40d8dr3l2e8am2pa1tkbjh5ufg1kqi@4ax.com>
Source record: 98597

On Tue, 9 Mar 2004 18:34:43 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>or is this a troll, Cecil

Hi Steve,

Well - waddaya think?

No. No. The question answers itself in proportion to the chuckles.
Better than video on demand, and cheaper.

73's
Richard Clark, KB7QHC

3926. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 06:26:17 UTC
From: Eric Oyen - N7ZZT <n7zzt@127.0.0.1>
Message-ID: <pan.2004.03.11.06.26.17.364611@127.0.0.1>
Source record: 98598

On Wed, 10 Mar 2004 22:24:53 +0000, Arnold wrote:

> On Wed, 10 Mar 2004 14:25:18 -0700, Eric Oyen - N7ZZT stood up and said:
>>
>> The problem is, with greater speed, you need higher bandwidth.
>>
>>
> You're right, of course, and my previous post was a mistype. I meant to
> say never assume *broadband* = speed.
ah! that does clarify things a bit.

However, broadband compared to modem speeds (dialup). now thats a horse of
a different color. :)

DE N7ZZT
Phoenix, Arizona

--
the difference between intelligence and stupidity is that intelligence
has its limits.

3927. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 09:18:22 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403110118.7082ede7@posting.google.com>
Source record: 98599

jaroslavlipka@msn.com (jaroslav lipka) wrote in message
news:<d7855f42.0403100604.1bfb2a63@posting.google.com>...
> Hi Art
>
> it is my experience that people with the greatest mastery of
> the queen's english use it with great effect to deflect questions and
> to avoid giving straight answers,and to change the subject without you
> realising that they have done so. Politicians and Richards 1and 2
> being good examples. What i have witnessed going on in your last
> couple of threads has not led me to change my opinion.
>
> Your tenacity and conviction in the face of the opposition on
> this group is admirable. Stick to your guns, for what it is worth my
> money is on you.
>
> Jaro.

What I can't fiqure out is why he even cares what anyone on here
thinks.
Why doesn't he just build the things and use them? Why the need to
convince us of anything? Heck, I know from modeling that what he
describes can work as far as the tuning device being able to tune the
dipole. "loop/cap/dipole combo. "
I tuned his 20m loop/dipole thing on all bands 20m-10m. I know the
exact cap values needed for each band.
Big deal....
But it's no different than any other dipole as far as pattern or gain.
It's no different than using an autotuner at the feed, T match, or
whatever. His loop and cap is a matching device. Nothing more, nothing
less. And it radiates very little as far as disturbing the dipole
pattern, regardless of what Art seems to think. Also, it doesn't tune
well below the resonant 1/4 wave frequency of the dipole, without
added inductance. All he is doing is placing a tuning network at the
feedpoint of the antenna.
Again, Big deal....I don't see what the fuss is...
I think the main problem he has is that many on this group don't or
won't automatically embrace his design as the best thing since sliced
bread.
But why would they? His antenna is cumbersome, overly complicated,
probably a royal pain to set up,"the patented version", and the gains
over just feeding the dipole or array with say low loss ladder line
and tuner are miniscule, if any. His antenna is just not practical for
most people. I sure wouldn't have any use for it at all. I use full
size resonant antennas for the most part. Why would I want to

downgrade?
The way I see it is he has an unhealthy need to *prove* this design.
Seriously.
The guy is obsessed over the thing, and this is not very healthy.
I think he will end up in a rubber room before it's over with, the way this seems to bother him. Myself, if I were him, I would ignore all, build it and use it, if thats what he wants. He'll never convince too many on here of the merits of his antenna, because to most of us, it has none over what most of us currently use. Any of my 160m antennas will totally thrash his current small "hi-Q" device. But if it's handy for him, more power to him. MK

3928. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 13:51:20 UTC
From: richardharrison@webtv.net
Message-ID: <15301-40506ED8-58@storefull-3253.bay.webtv.net>
Source record: 98600

Cecil, W5DXP wrote:
"I am assuming anything with the dimensions of "ohms" is "ohmic" but I could be wrong."

That would apply to a transmission line where "The characteristic impedance Zo is the ratio of voltage to current in an individual wave;---it is also the impedance of a line that is infinitely long ---" or terminated in ZL = Zo.

As Reg once noted, you could measure Zo with your ohmmeter in an infinite line.

Best regards, Richard Harrison, KB5WZI

3929. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 14:17:28 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <gis0509cp71augu102d9gqhh1rlci2k8ia@4ax.com>
Source record: 98601

On Wed, 10 Mar 2004 22:43:11 -0600, Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
wrote:

>So you disagree with "Wave Mechanics of Transmission Lines, Part 3:"
>by S. R. Best, QEX Nov/Dec 2001?

Cecil, are you saying you believe the total nonsense in Steve's Part 3? The fiction he wrote there is totally incorrect and misleading. He introduced nine new misconceptions that need dispelling, misconceptions that totally dispute my explanations of the role of wave mechanics in impedance matching, including my references from MIT and Harvard EE professors.

I can't disclose what's about to happen in the immediate future on this issue, but when it does happen you'll see mathematical proof of where herr Best went wrong. And it also totally supports your argument with Gene, who apparently doesn't get it either, because I heard him claim that Steve's article is one of the most illuminating and definitive he's read. Unfortunately, Steve's QEX article is total BS.

Walt, kW2DU

3930. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 14:38:07 UTC
From: richardharrison@webtv.net
Message-ID: <25335-405079CF-179@storefull-3251.bay.webtv.net>
Source record: 98603

Reg, G4FGQ wrote:
"One old wife asserts it is obvious radiation occurs mainly from the middle portion of a dipole because that is where the current is strongest and the magnetic field is most concentrated."

All sections of a dipole are needed to establish the wave launcher / grabber.

Seems to me the old wife quoted above is right. Radiation from a dipole is concentrated in a doughnut pattern around the middle of the wire.

What influences are sensed at a distance point perpendicular to the middle of the dipole?

There are electric fields, plus and minus, which cancel.

The current on one side of the dipole flows into the source while the current on the other side of the source flows out. This places current on both sides of the dipole in the same direction.

The magnetic fields from both sides of the dipole are additive because the currents producing them are in-phase.

Never mind that an electromagnetic wave must have an electric field as well as a magnetic field. The emerging magnetic field generates an electric field which generates a magnetic field ad infinitum.

Best regards, Richard Harrison, KB5WZI

3931. Re: Radial Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 14:40:43 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40507A6B.253E2E75@cwis.net>
Source record: 98602

Mike & Reg,
I agree with Reg, mostly. A good 'rule of thumb' (for me), is put in as many radials as you can before you get sick and tired of it, then do one more. Considering that my knees give me problems, that usually works out to ~far~ less than the 'normal' number of radials.
I don't exactly disagree with Reg about the domestic plumbing being used for an RF ground, but there are a lot of 'if's about that. The one 'if' that I've had a problem with is that if the plumbing happens to be shared with neighbors, you have a direct RF path into their house, and their electrical appliances, and they usually know just who's door to pound on. That may have been an isolated occurence,
but something to keep in mind if the "pounding on the door" happens.
What kind of wire? The 'best' wire type to use is what ever you have the most of. And the 'best' way to tell if there are enough radials is when there is no noticable improvement after adding the last few that you put in. Then put in maybe a few more just for the hell of it...
'Doc

3932. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 14:47:17 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40507BF5.CB23F9A2@cwis.net>
Source record: 98604

Cecil,
There are a few of the locals that have audio systems
in their cars louder than that! They are also a 'pain'.
'Doc

3933. Re: Compact VHF fox hunting antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 14:49:28 UTC
From: Markus Baertschi <markus.usenet@markus.org>
Message-ID: <c2pu9p$1vpalm$1@ID-71449.news.uni-berlin.de>
Source record: 98605

George wrote:
> Is anyone aware of a small directional antenna that is useful for direction
> finding at VHF? My understanding is that Doppler antennas work only while
> moving (true?) and what I need is a directional antenna that can be used
> while at rest. Low efficiency and relatively broad main lobe are OK as long
> as physical size is small.
>
> Thanks,
> George K6GW
>

Have a look at the HB9CV designs. The physical size is quite small and
mechanical construction is not difficult. I have a commercial one for
70cm at it works well and is small and easy to work with.

Here a link to a fellow ham who publishes instructions and drawings:
http://www.davidkearns.co.uk/g8tti/HB9CVdetails.htm

Markus
--
Markus Baertschi Phone: ++41 (21) 807 1677
Bas du Rossi¿œ 14b Fax : ++41 (21) 807 1678
CH-1163, Etoy Email: markus@markus.org
Switzerland Homepage: www.markus.org

3934. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 14:59:13 UTC
From: richardharrison@webtv.net
Message-ID: <25337-40507EC1-25@storefull-3251.bay.webtv.net>
Source record: 98606

Jim, AC6XG wrote:
"The amount of radiation emanating from any point woulf be proportional
to the rate at which energy traverses that point."

Amperes are the measure of current flow.

Best regards, Richard Harrison, KB5WZI

3935. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 15:05:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40508056_8@corp.newsgroups.com>
Source record: 98607

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "I am assuming anything with the dimensions of "ohms" is "ohmic" but I
> could be wrong."

> As Reg once noted, you could measure Zo with your ohmmeter in an
> infinite line.

But some people play semantic games. The IEEE dictionary generally
avoids definitions of adjectives and favors adjectives plus nouns,
e.g. "ohmic contact".

From my physics book, an ohmic conductor is one whose resistivity
is constant with changing voltage. Does "resistivity" imply dissipation?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3936. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 15:36:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2q114imv1@hercules.btinternet.com>
Source record: 98608

> As Reg once noted, you could measure Zo with your ohmmeter in an
> infinite line.
>
==========

It would not be a steady reading on the ohmeter. It would be a quick deflection followed by a slower subsidence.

Zo of real lines is a function of frequency. As frequency decreases Zo increases and becomes more reactive ultimately approaching -45 degrees. This affects in a complex manner the behaviour of the ohmeter pointer.

The ohmeter reading changes from an initial low value to a higher value versus time. The actual values and time taken depend on Zo and on the voltmeter resistance. The final value is never achieved just as the final voltage across a capacitor being charged up via a resistor is never achieved.

To calculate input resistance versus time as recorded on the ohmeter requires a large amount of calculation using Heaviside's operational calculus.

An infinite series of complicated terms is involved. This type of calculation on transmission lines must have been amongst the very first carried out by the young Heaviside himself round about 1872. It is closely related to the distortion of keying waveshapes along telegraph cables. Imagine the pleasure he experienced, using his own calculus, as he with his sliderule produced the very first sets of figures and graphs describing the waveshapes. It is still related to distortion of digital signals in this modern electronic age but now we have oscilloscopes.

Reg, G4FGQ

3937. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 15:52:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40508b6e_8@corp.newsgroups.com>
Source record: 98609

Walter Maxwell wrote:

> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>So you disagree with "Wave Mechanics of Transmission Lines, Part 3:"
>>by S. R. Best, QEX Nov/Dec 2001?
>
> Cecil, are you saying you believe the total nonsense in Steve's Part 3?

No, Steve assumes the existence of forward and reflected energy waves.
I also assume the existence of forward and reflected energy waves and
think their existence can be proven. I assume that you agree with Steve
that forward and reflected energy waves exist. If I understand Gene
correctly, he believes that reflected energy waves do not exist in
a matched system even though there is a mismatch at the load.

I probably should have said: "So you disagree with the very existence
of reflected energy waves which is assumed by S. R. Best in his QEX
Nov/Dec 2001 article.

Since Steve's article asserts the existence of forward and reflected
energy waves, it cannot be "total nonsense". In fact, Steve's equation
for total forward power yields the correct answer. In a matched system,

Ptotal = P1 + P2 + 2*SQRT(P1*P2)

indeed yields the correct result given that:

P1 = Psource(1-rho)^2 = Psource times the power transmission coefficient

P2 = Pref(rho)^2 = Preflected times the power reflection coefficient

Steve's problem was that he did not recognize (actually denied) the role
of interference, destructive and constructive, and therefore left out half
of the explanation. In optics, 2*SQRT(P1*P2) is known as the "interference term"
and equal magnitudes of interference happen on both sides of the match point. In
a perfectly matched system, at the match point, there exists total destructive
interference toward the source, i.e. zero reflections, and total constructive
interference toward the load, i.e. all the energy winds up flowing toward the load.

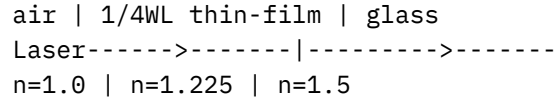
The following two problems are virtually identical. 'n' is the index of
refraction.

```
air | glass
Laser------->------|----->----
n=1.0 | n=1.5
```

```
XMTR---50 ohm coax---75 ohm load
```

The magnitudes of the reflection coefficients are identical at |0.2|

The solutions to those problems are virtually identical.



XMTR---50 ohm coax--x--1/4WL 61.2 ohm coax--75 ohm load

Optical physicists fully understand what happens with the Laser. It is explained on the Melles-Griot web page and in _Optics_, by Hecht. From the Melles-Griot web page: http://www.mellesgriot.com/products/optics/oc_2_1.htm

"Clearly, if the wavelength of the incident light and the thickness of the film are such that a phase difference exists between reflections of p, then reflected wavefronts interfere destructively, and overall reflected intensity is a minimum. If the two reflections are of equal amplitude, then this amplitude (and hence intensity) minimum will be zero. In the absence of absorption or scatter, the principle of conservation
of energy indicates all "lost" reflected intensity will appear as enhanced intensity in the transmitted beam."

This fits perfectly with Reflections II, chapter 23: "Therefore, while reflection angles for waves reflected at the input mismatch (point x above) are 180 deg for voltage, and 0 deg for current, the corresponding angles at the input for the waves reflected from the output mismatch (75 ohm load above) are reversed, 0 deg for voltage and 180 deg for current. Consequently, all corresponding voltage and current phasors are 180 deg out of phase at the matching point. ... With equal magnitudes and opposite phase at the same point (point x, the matching point) the sum of the two waves is zero."

That is a perfect description of total destructive interference. I have your reference, J. C. Slater's book, _Microwave_Transmission_, on order.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3938. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 16:02:06 UTC
From: richardharrison@webtv.net
Message-ID: <18301-40508D7E-34@storefull-3256.bay.webtv.net>
Source record: 98610

Cecil, W5DXP wrote:
"Does "resistivity" imply dissipation?"

I haven`t looked it up but the word "resistivity" automatically generates a definition in my mind:

Rho = length / area.

Best regards, Richard Harrison, KB5WZI

3939. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 17:07:44 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <nk515057bvsg68sm9ef29efdf6f1mn52rj@4ax.com>
Source record: 98611

On Thu, 11 Mar 2004 09:52:28 -0600, Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
wrote:

>Walter Maxwell wrote:
>
>> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>So you disagree with "Wave Mechanics of Transmission Lines, Part 3:"
>>>by S. R. Best, QEX Nov/Dec 2001?
>>
>> Cecil, are you saying you believe the total nonsense in Steve's Part 3?
>
>No, Steve assumes the existence of forward and reflected energy waves.
>I also assume the existence of forward and reflected energy waves and
>think their existence can be proven. I assume that you agree with Steve
>that forward and reflected energy waves exist. If I understand Gene
>correctly, he believes that reflected energy waves do not exist in
>a matched system even though there is a mismatch at the load.
>
>I probably should have said: "So you disagree with the very existence
>of reflected energy waves which is assumed by S. R. Best in his QEX
>Nov/Dec 2001 article.

Cecil, it's not whether reflected waves exist that's wrong with Steve's paper,
it's his misuse them that's wrong, and it's the misuse that is 'total nonsense'.

>Since Steve's article asserts the existence of forward and reflected
>energy waves, it cannot be "total nonsense". In fact, Steve's equation
>for total forward power yields the correct answer. In a matched system,
>
>Ptotal = P1 + P2 + 2*SQRT(P1*P2)
>
>indeed yields the correct result given that:
>
>P1 = Psource(1-rho)^2 = Psource times the power transmission coefficient
>
>P2 = Pref(rho)^2 = Preflected times the power reflection coefficient

Cecil, your equations for P1 and P2 yield absurd answers if you plug the numbers
into them. The value for P1 should read "Psource (1 - rho^2) = ..., and the
value for P2 should read "P2 = Pref (rho^2). Beega difference! Then the value
for Ptotal will be correct.

>Steve's problem was that he did not recognize (actually denied) the role
>of interference, destructive and constructive, and therefore left out half
>of the explanation.

Exactly!!! And it's the correct interference relationship I present in QEX and
Reflections that he insists is incorrect. In much earlier emails with Steve he
told me that using my statements appearing there he could prove me technically
incompetent. He simply would not accept any of my pleadings with him to see the
correct application of the interference between reflected waves that achieves
the impedance match.

In optics, 2*SQRT(P1*P2) is known as the "interference term"
>and equal magnitudes of interference happen on both sides of the match point. In
>a perfectly matched system, at the match point, there exists total destructive
>interference toward the source, i.e. zero reflections, and total constructive
>interference toward the load, i.e. all the energy winds up flowing toward the load.
>
>The following two problems are virtually identical. 'n' is the index of
>refraction.
>
> air | glass
>Laser------->------|----->----
> n=1.0 | n=1.5
>
>XMTR---50 ohm coax---75 ohm load
>
>The magnitudes of the reflection coefficients are identical at |0.2|
>
>The solutions to those problems are virtually identical.
>
> air | 1/4WL thin-film | glass
>Laser------>-------|--------->---------|------>-----
> n=1.0 | n=1.225 | n=1.5
>
>XMTR---50 ohm coax--x--1/4WL 61.2 ohm coax--75 ohm load
>
>Optical physicists fully understand what happens with the Laser. It is explained
>on the Melles-Griot web page and in _Optics_, by Hecht. From the Melles-Griot web
>page: http://www.mellesgriot.com/products/optics/oc_2_1.htm
>
>"Clearly, if the wavelength of the incident light and the thickness of the film
>are such that a phase difference exists between reflections of p, then reflected
>wavefronts interfere destructively, and overall reflected intensity is a minimum.
>If the two reflections are of equal amplitude, then this amplitude (and hence intensity)
>minimum will be zero. In the absence of absorption or scatter, the principle of
conservation
>of energy indicates all "lost" reflected intensity will appear as enhanced intensity in
the
>transmitted beam."

No one in his right mind can successfully argue against this. Anyone who would
argue against this is either of closed mind or an ignorant moron.

>This fits perfectly with Reflections II, chapter 23: "Therefore, while reflection
>angles for waves reflected at the input mismatch (point x above) are 180 deg for voltage,
>and 0 deg for current, the corresponding angles at the input for the waves reflected

>from the output mismatch (75 ohm load above) are reversed, 0 deg for voltage and 180
>deg for current. Consequently, all corresponding voltage and current phasors are 180
>deg out of phase at the matching point. ... With equal magnitudes and opposite phase
>at the same point (point x, the matching point) the sum of the two waves is zero."

I'm glad you find that Chapter 23 fits, because I've known all along that it fits perfectly with Melles-Griot. Steve (Best), on the other hand says Chapter 23 is totally wrong. You might also note that Chapter 23 is identical with my paper in QEX in the Mar/Apr 1998 issue, which Steve also disputes in all three parts of his QEX article.

>That is a perfect description of total destructive interference. I have your reference,
>J. C. Slater's book, _Microwave_Transmission_, on order.

You might find Slater (1943) difficult to obtain. I can email you a copy of the pertinent part if you wish.

Walt, W2DU

3940. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 17:26:44 UTC
From: richardharrison@webtv.net
Message-ID: <13188-4050A154-240@storefull-3255.bay.webtv.net>
Source record: 98612

Walt, W2DU wrote:
"Have you guys ever considered that since the infinitesimally short dipole radiates only 4 percent less than a resonant dipole, the only reason for having any longer length than the infinitesimally short is to make it resonant."

I`ll assume Walt`s infinitesimally short dipole is the same as Terman`s elemental dipole. If so, I`ll quibble over the 4% . Terman`s table 23-1 on page 871 of his 1955 edition gives the directive gain of the elementary doublet as 1.5 over the isotropic. The resonant dipole has a 1.64 gain . The difference is 0.14 or about 10% more from the 1/2-wave dipole. Still no big deal.

Current is in the same direction in both halves of the elementalary dipole no matter how short it is. Opposite charge polarities occupy both elements and their effects tend to cancel on charges equidistant from the middle of the antenna.

The field radiated in any direction is the vector sum of fields radiated from infinitesimal elements, and field strength is proportional to current.

Directional gain ignores losses. That`s the rub with the tiny antenna of high capacitive reactance (the capacitance is small) and low radiation resistance. The gain ratios are only valid with equal powers in comparison antenna and subject antenna. To get the large current required in the infinitesimal antenna to radiate the same power as the 1/2-wave dipole would be extremely difficult without enormous loss in the match and load circuits.

Best regards, Richard Harrison, KB5WZI

3941. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 17:45:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2q8jd$753$1@sparta.btinternet.com>
Source record: 98613

In all these sort of discussions I have never heard any mention of
"Interaction Loss", ie., that which occurs directly between the reflection
coefficients of the source and load.

It seems something important has long been and is still being neglected. It
may be that some points of dispute could be resolved by taking Interaction
Loss into account.

Reg.

3942. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 17:47:13 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4050a653_7@corp.newsgroups.com>
Source record: 98614

Walter Maxwell wrote:
> Cecil, your equations for P1 and P2 yield absurd answers if you plug the numbers
> into them. The value for P1 should read "Psource (1 - rho^2) = ..., and the
> value for P2 should read "P2 = Pref (rho^2). Beega difference! Then the value
> for Ptotal will be correct.

Yep, Walt, I made a typo. It should be (1-rho^2). When I think in words while typing, "one minus rho squared", is ambiguous. Obviously (rho)^2 + (1-rho^2) *must* equal unity, i.e. the total.

> I'm glad you find that Chapter 23 fits, because I've known all along that it
> fits perfectly with Melles-Griot. Steve (Best), on the other hand says Chapter
> 23 is totally wrong.

I don't know how he can say that. The Melles-Griot data for perfect non-glare glass depends upon two 'I' irradiance equations.

Irradiance toward the source (reflected irradiance) equals:

Ir1 + Ir2 - 2*(Ir1*Ir2) = 0 = Ir1 + Ir2 - total_destructive_interference

Irradiance toward the load (total forward irradiance) equals:

If1 + If2 + 2*(If1*If2) = If1 + If2 + total_constructive_interference

It may not be apparent but (Ir1*Ir2) *must* equal (If1*If2).

Steve and I had an argument about this stuff years ago before he published his QEX article. He denied that any interference exists even though his 2*SQRT(P1*P2) term is know as the "interference term".

Irradiance, 'I', for a laser beam, is equivalent to power. Reflectance, 'R' in optics, is the power reflection coefficient. Transmittance, 'T' in optics, is the power transmission coefficient. Thus:

Ir1 = R*Isource Ir2 = T*Iref If1 = T*Isource If2 = R*Iref

> You might find Slater (1943) difficult to obtain. I can email you a copy of the
> pertinent part if you wish.

Thanks, but my used copy has already shipped through http://www.powellsbooks.com

Walt, as you know, QEX refused to publish my rebuttal of Steve's article. There's some good stuff and some bad stuff in his article. This is not a black and white argument. IMO, about a third of Steve's Part 3 article is valid. My objections are with the other 2/3.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3943. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 17:54:12 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403110954.3f05a1e3@posting.google.com>
Source record: 98615

nm5k@w
t.net (Mark Keith) wrote in message

Mark, I cannot stand by while the pack readies itself to attack this gut
purely because he does not conform with the general group
I will bare myself to the group and then open another thread where you can renue the assaults on me.
I was a child in England on Sept3 1939,scooling was not an issue, when war swirles around you the public is rallied to stories of old glories where England has fought many battles in its history and how in the corner of any battle fields there lies a mound that contains a piece of England. When things go wrong then we are reminded of how things can go wrong in the story of how the king fled from a battle field on a fiery horse and from which the poetry spills about how for the sake of a nail a shoe was lost.
After the war I embarked on schooling at night even tho I was also working but at that time they had raised the school leaving age to 15 so in a way I was lucky. More than a decade later I finally passed all the examinations required of a professional enginner and was invited to the U.S. to partake in the good life.
As with all people there is an aging process and you are prone to things happening that never occured before, mine was a heart attack, lots of people have those, but in my case a projectile somehow got loose in my brain severing all the communication wires that had taken half a century to grow. This phenomina forced me back to near childhood where one starts the learning proces by toutching and watching and seeing. Sounds simple but taking that course allowed me to get of the bed and pursue things. In my case it was to first get my memory going so I could read (no I did not make such a logical choice this is inbuilt human instincts. Eventualy I turned to antennas as it allowed me to go out on the land and piddle with antennas even tho I was so, so at evrything
but I was not being judges. To move on quicker, the idea that Brown had with a loop to detune errant transmissions and over a few years was rewarded when I read the Moxon book. Here he showed a combination loop dipole that could be used
for at least three bands. What was important to me was the impotance of coupling
which brings up the issue that no where does it say that all antennas must be based around wavelength and the accompanying series circuit. Moxon didn't have the benefit of a computor and his work was all done long hand where I had fuel to follow my instincts. Recognising that Moxon had not gone into the intricacies

of how important the distributed loads on the radiating members I honed that design together with the addition of a motor such that the tree band s he had chosen were connected in SWR form (unfortunately he opted for a resonant feed point approach) After a few more years I was confident enough to share what I had found and instead of spending a large amount of money I wrote up a patent for my self knowing that even if I could write reasonably well which I couldn't
QST would never print such a thing anymore. So yes I got a patent and even followed it with another on and then another one which I withdrew because of a hail of critisicm. One of the reasons was because of irregular learning to say the least I was not privy to the use of regular terms that one would obtain with a formal education. My former education was lost tho I like to think that some is returning. On reflection if I can use that term it is normal for experts to attack even experts and even trash them if possible.
Thus when I shared my experiences probably in an unclear way or what ever I the man became the focus and not the story that I wanted to impart. Eventually
somebody pointed out that I had no integrty and the technical side was lost.
Now it was a fight against the man, an englishman in the US that one can join with experts to maul. Yes I could have left like others that had been trashed in the past many of which were just people you were willing to search for a way to stretch the envelope . However for me the 'corner in every battlefield' rang in my ears consistantly and perhaps I became a child again and decided I would only leave on my own terms and not those of a shabby mob, a very hurtfull and painful journey to be sure. Now I see the formation for another attack, not on me but somebody who came out and posted something that alluded to me and that I feel is so,so wrong. Iwill start another thread which goes back to my first entrance on this group here possible some of the newer members will focus on the technical side by looking at the picture that I hold and not on the man holding it. I will do this to lure you all from what you are now readying to do
and you can then determine if indeed I am a man ready for the rubber room because of insanity. To the initial poster, thanks but no thanks, you have a life to live, remove youself and enjoy the good life.

Regards
Art Unwin...KB9MZ.....XG and so, so proud of it.

3944. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 17:54:12 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403110954.1b20e616@posting.google.com>
Source record: 98616

nm5k@w
t.net (Mark Keith) wrote in message

Mark, I cannot stand by while the pack readies itself to attack this gut
purely because he does not conform with the general group
I will bare myself to the group and then open another thread where you can renue the assaults on me.
I was a child in England on Sept3 1939,scooling was not an issue, when war swirles around you the public is rallied to stories of old glories where England has fought many battles in its history and how in the corner of any battle fields there lies a mound that contains a piece of England. When things go wrong then we are reminded of how things can go wrong in the story of how the king fled from a battle field on a fiery horse and from which the poetry spills about how for the sake of a nail a shoe was lost.
After the war I embarked on schooling at night even tho I was also working but at that time they had raised the school leaving age to 15 so in a way I was lucky. More than a decade later I finally passed all the examinations required of a professional enginner and was invited to the U.S. to partake in the good life.
As with all people there is an aging process and you are prone to things happening that never occured before, mine was a heart attack, lots of people have those, but in my case a projectile somehow got loose in my brain severing all the communication wires that had taken half a century to grow. This phenomina forced me back to near childhood where one starts the learning proces by toutching and watching and seeing. Sounds simple but taking that course allowed me to get of the bed and pursue things. In my case it was to first get my memory going so I could read (no I did not make such a logical choice this is inbuilt human instincts. Eventualy I turned to antennas as it allowed me to go out on the land and piddle with antennas even tho I was so, so at evrything
but I was not being judges. To move on quicker, the idea that Brown had with a loop to detune errant transmissions and over a few years was rewarded when I read the Moxon book. Here he showed a combination loop dipole that could be used
for at least three bands. What was important to me was the impotance of coupling
which brings up the issue that no where does it say that all antennas must be based around wavelength and the accompanying series circuit. Moxon didn't have the benefit of a computor and his work was all done long hand where I had fuel to follow my instincts. Recognising that Moxon had not gone into the intricacies

of how important the distributed loads on the radiating members I honed that design together with the addition of a motor such that the tree band s he had chosen were connected in SWR form (unfortunately he opted for a resonant feed point approach) After a few more years I was confident enough to share what I had found and instead of spending a large amount of money I wrote up a patent for my self knowing that even if I could write reasonably well which I couldn't
QST would never print such a thing anymore. So yes I got a patent and even followed it with another on and then another one which I withdrew because of a hail of critisicm. One of the reasons was because of irregular learning to say the least I was not privy to the use of regular terms that one would obtain with a formal education. My former education was lost tho I like to think that some is returning. On reflection if I can use that term it is normal for experts to attack even experts and even trash them if possible.
Thus when I shared my experiences probably in an unclear way or what ever I the man became the focus and not the story that I wanted to impart. Eventually
somebody pointed out that I had no integrty and the technical side was lost.
Now it was a fight against the man, an englishman in the US that one can join with experts to maul. Yes I could have left like others that had been trashed in the past many of which were just people you were willing to search for a way to stretch the envelope . However for me the 'corner in every battlefield' rang in my ears consistantly and perhaps I became a child again and decided I would only leave on my own terms and not those of a shabby mob, a very hurtfull and painful journey to be sure. Now I see the formation for another attack, not on me but somebody who came out and posted something that alluded to me and that I feel is so,so wrong. Iwill start another thread which goes back to my first entrance on this group here possible some of the newer members will focus on the technical side by looking at the picture that I hold and not on the man holding it. I will do this to lure you all from what you are now readying to do
and you can then determine if indeed I am a man ready for the rubber room because of insanity. To the initial poster, thanks but no thanks, you have a life to live, remove youself and enjoy the good life.

Regards
Art Unwin...KB9MZ.....XG and so, so proud of it.

3945. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 18:10:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4050abdb$1_2@127.0.0.1>
Source record: 98617

Reg Edwards wrote:
> In all these sort of discussions I have never heard any mention of
> "Interaction Loss", ie., that which occurs directly between the reflection
> coefficients of the source and load.
>
> It seems something important has long been and is still being neglected. It
> may be that some points of dispute could be resolved by taking Interaction
> Loss into account.

We usually discuss Z0-matched systems. In a Z0-matched system,
the reflection coefficients at the two reflection points are
equal in magnitude and opposite in sign. If no reflections are
allowed to reach the source, there is zero "Interaction Loss".
--
73, Cecil, W5DXP

3946. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 18:16:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4050ad44_2@127.0.0.1>
Source record: 98618

Art Unwin KB9MZ wrote:
> I will do this to
> lure you all from what you are now readying to do
> and you can then determine if indeed I am a man ready for the rubber
> room because of insanity.

Art, I don't know if you know it or not, but some of the greatest
minds in the history of mankind were bipolar. I suspect the manic
phase plus a high IQ cannot be beaten for original creative thought.
--
73, Cecil, W5DXP

3947. Re: Its all gone quiet. Let's stir it up again.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 18:22:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d3b150tnoq33ek3o5vk3b7m1qq0nsctdlr@4ax.com>
Source record: 98519

On Thu, 11 Mar 2004 08:38:07 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Seems to me the old wife quoted above is right. Radiation from a dipole
>is concentrated in a doughnut pattern around the middle of the wire.

Hi Richard,

This is from an infinite perspective where all contributions of
radiation sum to form the shape you describe. If you were actually
sitting at the middle of that "doughnut" you would see a pattern more
like three poached eggs bigger than the size of the structure.

Examples of near field patterns (evidenced through their imposition of
a Z other than 377 Ohms upon the vicinity of the antenna) may be
observed at:
http://home.comcast.net/~kb7qhc/antennas/Fields/index.htm
with:
http://home.comcast.net/~kb7qhc/antennas/Fields/Dipole/index.htm
showing a distinct activity at BOTH the middle AND at the ends.

73's
Richard Clark, KB7QHC

3948. New ham radio forum!!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 18:33:20 UTC
From: Frank Sellers <N6AQ@cox.net>
Message-ID: <Gh24c.25659$506.18445@fed1read05>
Source record: 98520

www.n6aq.com

3949. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 19:14:31 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <rU24c.15552$%06.14093@newsread2.news.pas.earthlink.net>
Source record: 98521

I like your idea Art. But I think the phone portions of the band should be trashed with BPL. For the following reasons;

SSB is a old Amplitude Modulation Mode, first played with way back in the 1930s. So its too old for todays technology.

Put those interested in voice modes on digital voice only and put them all in the cw/digital segments.

That will clear up the phone bands and let BPL have a clear shot.

What say?

Dan/W4NTI

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message news:85ed38d.0403091947.76460ae@posting.google.com...
> Why doesn't the ARRL offer BPL people the code portions of amateur
> bands.
> With removal of the code from exams around the World and the aging of
> the hobby
> being generous with an offer will help the hobby to survive a bit
> longer. If the interference created is not to the common good then BPL
> goes out the window, if the interference does NOT occur then the
> common good should benefit.
> We have to recognise that the hobby is not attracting sufficient new
> members as more auguements occur and as computors become the prime
> vehicle for communication via forums such as this.
> Regards
> Art
> the bansthatcher <thatc4@net.com> wrote in message news:<c265ct027k1@enews2.newsguy.com>...
> > http://biz.yahoo.com/fool/040303/1078348320_1.html
> >
> >
> > *Motley Fool*
> > Broadband and Utilities, Oh My
> > Wednesday March 3, 4:12 pm ET
> > By Mark Mahorney
> >
> > Only a year ago, broadband over power line (BPL) was seen as a
> > technology with an uncertain future and far from implementation. Despite
> > early snafus, BPL has ironed out its kinks and is now being rolled out.
> > Though largely ignored, this is one of the most exciting events to hit
> > technology news in a long time.
> >

> > ADVERTISEMENT
> >
> > Considering how long the Internet has been sharing phone lines, it's
> > taken a long time for power lines to reach the dual-use point. Cable and
> > DSL Internet service providers have been crossing their fingers hoping
> > it wouldn't happen.
> >
> > It's sneaking up on them just as cable Internet launched a sneak attack
> > on dial-up providers. Now, the dial-up providers are largely dependent
> > on phone company partnerships and rural customers who can't get cable or
> > DSL. But what will become of them if those customers -- which represent
> > a significant portion of the population -- can get broadband Internet
> > over their power lines? And who would have thought we may soon be paying
> > our power company for Internet access?
> >
> > Yesterday, *Cinergy* (NYSE: CIN <http://finance.yahoo.com/q?s=cin&d=t> -
> > News <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
> > Broadband subsidiary and partner Current Communications are rolling out
> > the BPL service in the Cincinnati, Ohio area. After testing the service
> > in a small region, the company is ready to unleash the power (no pun
> > intended). It claims its service is faster -- more than three megabytes
> > per second compared with cable's roughly two megs per second -- and
> > cheaper than cable Internet.
> >
> > Test customers have been happy with the service, and there have been no
> > problems with interference. Furthermore, all that's needed to tap into
> > it is a $30 HomePlug power line modem, which the company will be giving
> > away.
> >
> > Cinergy isn't the only utility looking at this technology, either. There
> > are numerous power companies developing the capability or watching its
> > development closely. Internet start-ups like Current Communications are
> > waiting in the wings to help the utilities initiate and manage the
service.
> >
> > It's a potentially huge revenue source for the utilities, with the
> > possibility of being a huge revenue drain for the current Internet
> > providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
> > <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
> > <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
> > Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
> > <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
> > <http://finance.yahoo.com/q?s=bls&d=t> - News
> > <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications* (NYSE:
> > SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
> > <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional dial-ups
> > like *Time Warner's* (NYSE: TWX <http://finance.yahoo.com/q?s=twx&d=t> -
> > News <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
> > *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
> > News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying

attention.
> >
> > From the look of things, this technology will roll out much faster than
> > most people expect. I am certainly willing to give it a try if and when
> > it comes to my area. And I recommend you check with your local power
> > company to see if it has any plans to implement the technology. If so,
> > consider taking a good look at both the stock and the service. It could
> > be the next big thing.
> >
> > /What do you think this new technology means for cable companies like
> > Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
> > service providers like Time Warner's AOL
> > <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
> > other Fools on our discussion boards./
> >
> > /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
> > doesn't own shares of any companies mentioned./

3950. Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 19:16:27 UTC
From: nospam_deepsea_77@yahoo.com
Message-ID: <4050b6d1.8264592@nntp>
Source record: 98522

I live on a small plot in a canyon (very steep canyon walls), and between the tiny plot, CC&R's, and the very strong likelyhood of a local chapter of Busybodies, Snoops and Ham-Haters (Local 557) being present, the logical choice of antenna for 80M seemed to be either a Magloop or a 6-slinky antenna w/a tuner, located inside the garage running across the roof peak (only 20 feet).

Tried the slinky w/tuner, it loaded up just fine, but it turned out to be a very good dummy load on 80M, and little else. Noisy as all getout, too, mostly just gets local QRN.

Question: Will the 80M Magloop be any better, or should I just save my effort and try something else?

Thanks to the group,

Lin/KJ6EF

For email responses, remove "nospam_".

3951. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 19:31:42 UTC
From: dplatt@radagast.org
Message-ID: <1051fkufmdm1958@corp.supernews.com>
Source record: 98523

>> Why doesn't the ARRL offer BPL people the code portions of amateur
>> bands.

> Put your asbestos suit on, Art. ;-)

In addition to Andy's valid comments, there's another factor which I think render's Art's suggestion pretty much meaningless.

The BPL systems being considered are intended to use most or all of the HF and low-VHF spectrum... all the way from 1-2 MHz up to 80 MHz. They need to use all of this spectrum space, in order to send enough bits down the line to provide enough data bandwidth to [try to] compete against DSL and cable modem.

The CW and data portions of the amateur bands are a *tiny* fraction of the spectrum space that BPL wants to use (and which many people believe it'll radiate, and thus interfere with).

Furthermore: the ARRL has *no* legal power to "offer" the spectrum space to the BPL industry (the ARRL is not a government body), and the BPL industry is (in effect) asserting that they *already* have the right to use this spectrum space on their wires because it won't be radiated/broadcast.

So, I think, Art's suggestion is both unimplementable, and essentially meaningless.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3952. Re: Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 19:36:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fse1505uuv8f9hm5446oio2d84n8vilvij@4ax.com>
Source record: 98524

On Thu, 11 Mar 2004 19:16:27 GMT, nospam_deepsea_77@yahoo.com (Space Charge) wrote:

>I live on a small plot in a canyon (very steep canyon walls), and
>between the tiny plot, CC&R's, and the very strong likelyhood of a
>local chapter of Busybodies, Snoops and Ham-Haters (Local 557) being
>present, the logical choice of antenna for 80M seemed to be either a
>Magloop or a 6-slinky antenna w/a tuner, located inside the garage
>running across the roof peak (only 20 feet).
>
>Tried the slinky w/tuner, it loaded up just fine, but it turned out to
>be a very good dummy load on 80M, and little else. Noisy as all
>getout, too, mostly just gets local QRN.
>
>Question: Will the 80M Magloop be any better, or should I just save my
>effort and try something else?
>
>Thanks to the group,
>
>Lin/KJ6EF

Hi Lin,

Small antennas of any design (that is dipole or loop) suffer from the amount of power that goes to radiation compared to the power that goes up in heat. Without more geometrical details (like what is the maximum length dipole, or the greatest perimeter of loop you can support) speculations could run from dismal to aggressively tepid.

Let us consider you building a small 1Meter diameter loop from 1 inch stock copper tubing:
Fo 1M diameter Efficiency with skin effect loss
160M 29 ï¿½Ohms 0.2%
80M 500 ï¿½Ohms 2.4%
60M 1.5 mOhms 6%
40M 7.5 mOhms 21%
30M 24 mOhms 42%
20M 120 mOhms 75%

The second column with the ï¿½Ohms leading the way show the radiation resistance for that band. At low frequencies it is so small that even the low resistance of this large conductor wipes it out! The same applies for a short dipole (irrespective of it being a slinky, which being steel wire of smaller diameter, makes it far worse).

In your place, I would suspend a stove pipe size dipole from the roof beam and drive it with a small coupling loop. It will still be quite High Q'd requiring frequent tuning to move about the band. Take care to insulate/isolate the ends from combustible material.

73's
Richard Clark, KB7QHC

3953. >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 19:54:59 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403111154.4260a1f5@posting.google.com>
Source record: 98525
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

Hello,

I just finished building this one:

http://www.drslick.org/Temp1/yagi929.jpg

It's quite unusual, in that there are no directors and two
reflectors.

Here's the H-plane plot (the pattern looking down on the antenna
from above, when the elements are vertical) in the yagi optimizer
program that i used:

http://www.drslick.org/Temp1/yagi929.jpg

It's an interesting method that my friend used to get the
pattern we wanted. We couldn't use the optimization algorithms,
because these are designed to maximize the frontal lobe (can become
quite narrow in span), whereas we wanted something with a 180 degree
pattern.
Notice it's about only about -2dB at 90 and 270 degrees. Also
note that the outer edge of the pattern is about 4.51 dBi, so the dBd
(decibals over a dipole) will be somewhere around +2.4dBd or so.
This isn't that much gain, we realized, but the constraining
factor was to make the yagi as compact as possible, so as to keep the
landlord quiet. So we ended up with 3 elements minimum, in order to
achieve the pattern and get close to 50 ohms.

This antenna was designed for use when you are on the edge of
your city, and you don't wanna waste ERP into the mountains or
whatnot.

As you can see in the Jpeg, it's built with HomeDepot stuff: 2"
pvc and 5/16" treaded stock rod, which comes in lengths of 3 feet,
with nuts used to attach lugs that are soldered to an SO-239, and for
attaching to the PVC itself. Buy the connecting "link" nuts (they are
longer than regular nuts), and you can put these on the ends to tune
the lengths for best SWR.

Here's the basic plans:

Position (inches) 1/4 wavelength
(inch)x two

Driven element: 0 29.4"
Reflector 1: 12" 38.01"
Mast: 48" try for non-resonant

length
Reflector 2: 58" 32"

So you will obviously have to make a two times the 1/4
wavelength that you see, to make a dipole. The DE has a space between
the elements, but the reflector sections can be attached inside the
PVC.

Supposedly, the mast has no effect at a distance of 48" from
the DE, but when i simulated this in the YO, the length of the mast
DID matter, so it's advised that one make the mast at a non-resonant
length, which for 92.9 megs would be avoiding a multiple of 5 feet.

I didn't get a chance to measure the F/B ratio, nor do i really
have the proper equipment to do so, but it's certainly directional, as
a field test has proven.

Questions and comments appreciated.

Dr. Slick

(not a real Doctor)

3954. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 20:22:35 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <fU34c.6180$zS4.53815@attbi_s51>
Source record: 98526

Dan, I was talking tongue in cheek to create more thought on how this problem should be aproached. Yes the threat is dire and the FCC can no way stop progress if that what it turns out to be. But we are not alone in this struggle, many others use these frequencies whether for broadcasting or mechanical/medical control. It is so much better to be prepared and consort with allies for when the real battle begins which will revolve around protection for other users. This is not the time to cry wolf which provides no benefit only discredit. The ARRL believes that they no that the outcome will be huge interference where the voices of the few will or may be drowned out, thus the task is really to forge alliances and supply them with the technical info around which all can pursue at the apropiate time. To suggest,impune or otherwise degenerate the FCC or leave an impression that can be perceived to be thrown that way does not get the attention of those we wish to influence so now as I suggested earlier we should keep our powder dry and focuss on supporting the regulations which are in place I.E new services must not be allowed to imping, didturb or otherwise interefere with the present users.
It is around this where the battle is really to be fought and it is for that one should be ready for together ith allies to bolster our diminishing numbers.
Regards
Art
"Dan/W4NTI" <w4nti@get rid of this mindspring.com> wrote in message news:rU24c.15552$%06.14093@newsread2.news.pas.earthlink.net...
> I like your idea Art. But I think the phone portions of the band should be
> trashed with BPL. For the following reasons;
>
> SSB is a old Amplitude Modulation Mode, first played with way back in the
> 1930s. So its too old for todays technology.
>
> Put those interested in voice modes on digital voice only and put them all
> in the cw/digital segments.
>
> That will clear up the phone bands and let BPL have a clear shot.
>
> What say?
>
> Dan/W4NTI
>
> "Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
> news:85ed38d.0403091947.76460ae@posting.google.com...
> > Why doesn't the ARRL offer BPL people the code portions of amateur
> > bands.

> > With removal of the code from exams around the World and the aging of
> > the hobby
> > being generous with an offer will help the hobby to survive a bit
> > longer. If the interference created is not to the common good then BPL
> > goes out the window, if the interference does NOT occur then the
> > common good should benefit.
> > We have to recognise that the hobby is not attracting sufficient new
> > members as more auguements occur and as computors become the prime
> > vehicle for communication via forums such as this.
> > Regards
> > Art
> > the bansthatcher <thatc4@net.com> wrote in message
> news:<c265ct027k1@enews2.newsguy.com>...
> > > http://biz.yahoo.com/fool/040303/1078348320_1.html
> > >
> > >
> > > *Motley Fool*
> > > Broadband and Utilities, Oh My
> > > Wednesday March 3, 4:12 pm ET
> > > By Mark Mahorney
> > >
> > > Only a year ago, broadband over power line (BPL) was seen as a
> > > technology with an uncertain future and far from implementation.
Despite
> > > early snafus, BPL has ironed out its kinks and is now being rolled
out.
> > > Though largely ignored, this is one of the most exciting events to hit
> > > technology news in a long time.
> > >
> > > ADVERTISEMENT
> > >
> > > Considering how long the Internet has been sharing phone lines, it's
> > > taken a long time for power lines to reach the dual-use point. Cable
and
> > > DSL Internet service providers have been crossing their fingers hoping
> > > it wouldn't happen.
> > >
> > > It's sneaking up on them just as cable Internet launched a sneak
attack
> > > on dial-up providers. Now, the dial-up providers are largely dependent
> > > on phone company partnerships and rural customers who can't get cable
or
> > > DSL. But what will become of them if those customers -- which
represent
> > > a significant portion of the population -- can get broadband Internet
> > > over their power lines? And who would have thought we may soon be
paying
> > > our power company for Internet access?
> > >
> > > Yesterday, *Cinergy* (NYSE: CIN

<http://finance.yahoo.com/q?s=cin&d=t> -
> > > News <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
> > > Broadband subsidiary and partner Current Communications are rolling
out
> > > the BPL service in the Cincinnati, Ohio area. After testing the
service
> > > in a small region, the company is ready to unleash the power (no pun
> > > intended). It claims its service is faster -- more than three
megabytes
> > > per second compared with cable's roughly two megs per second -- and
> > > cheaper than cable Internet.
> > >
> > > Test customers have been happy with the service, and there have been
no
> > > problems with interference. Furthermore, all that's needed to tap into
> > > it is a $30 HomePlug power line modem, which the company will be
giving
> > > away.
> > >
> > > Cinergy isn't the only utility looking at this technology, either.
There
> > > are numerous power companies developing the capability or watching its
> > > development closely. Internet start-ups like Current Communications
are
> > > waiting in the wings to help the utilities initiate and manage the
> service.
> > >
> > > It's a potentially huge revenue source for the utilities, with the
> > > possibility of being a huge revenue drain for the current Internet
> > > providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
> > > <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
> > > <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
> > > Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
> > > <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
> > > <http://finance.yahoo.com/q?s=bls&d=t> - News
> > > <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications* (NYSE:
> > > SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
> > > <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional
dial-ups
> > > like *Time Warner's* (NYSE: TWX
<http://finance.yahoo.com/q?s=twx&d=t> -
> > > News <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
> > > *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
> > > News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying
> attention.
> > >
> > > From the look of things, this technology will roll out much faster
than
> > > most people expect. I am certainly willing to give it a try if and
when

> > > it comes to my area. And I recommend you check with your local power
> > > company to see if it has any plans to implement the technology. If so,
> > > consider taking a good look at both the stock and the service. It
could
> > > be the next big thing.
> > >
> > > /What do you think this new technology means for cable companies like
> > > Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
> > > service providers like Time Warner's AOL
> > > <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
> > > other Fools on our discussion boards./
> > >
> > > /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
> > > doesn't own shares of any companies mentioned./
>
>

3955. Re: "pneumatic-traps" dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 20:23:49 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <pV34c.89879$eL2.4711635@twister.southeast.rr.com>
Source record: 98527

"Toni - EA3FYA" <ea3fya@hotmail.com> wrote in message
news:e31p401mc6kj4u3vusmrcchc15tk2mriu0@4ax.com...
> Hi,
>
> For various reasons I am considering building a trapped dipole
> without traps. Well, not really. I would use pneumatical
> (compressed-air) switches in place of the traps.
>
> What I don't know is if the switches rated for 16A 250V AC will
> stand the voltage at the edge of the antenna when open. Power
> would be 100W, but I wouldn't mind reducing to 50W or even 25W if
> that would make the switches work. Of course I would always
> operate the switches without RF on the antenna. I know normal
> voltages an antenna edges are much higher, but I also think that
> 250V working voltage probably means much higher isolation
> voltage. Just don't know how much more.
>
> Thanks for answers / ideas.
>
> Toni - EA3FYA

I would think the switch should work well as lonfg as you do not transmit
while opening a switch. Most switches are rated for opening under full load.
If you rate the same swich for opening under no load it can be rated at
several times its normal rating. I experimented with something similar to
what you are doing with smaller relays and it worked fine. There were some
inherent problems usuing relays but your idea of using pneumatic switches
would over come all the problems I had..

3956. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 20:26:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4050cbd1_2@127.0.0.1>
Source record: 98528
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

Dr. Slick wrote:
> Here's the H-plane plot

Nope, it's not but an H-plane plot would be interesting.
--
73, Cecil, W5DXP

3957. Re: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 20:39:38 UTC
From: richardharrison@webtv.net
Message-ID: <13188-4050CE8A-271@storefull-3255.bay.webtv.net>
Source record: 98530

Dave Shrader has kindly contacted me to tell me I was wrong with my resistivity definition.

Dave is right.

The formula I was trying to remember is:

Resistance = RESISTIVITY x length / area

I goofed and I`m sorry.

Best regards, Richard Harrison, KB5WZI

3958. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 20:40:20 UTC
From: Dave <noone@nowhere.com>
Message-ID: <_4GdndolAZQiU83dRVn-gQ@crocker.com>
Source record: 98529

"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message
news:ZAQ3c.97263$aH3.2951275@bgtnsc04-news.ops.worldnet.att.net...
> Cecil,
> You appear to misunderstand that it is essentially impossible to do
> anything with all of your interfering component waves except wave your
> hands and flap your gums about them.

you must be new here... that is what these guys do all day long!

3959. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 20:57:55 UTC
From: "Z.Z." <nobody@nowhere.com>
Message-ID: <Xns94A98E1031962nobodynowhere@68.6.19.6>
Source record: 98531
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

Pappy wrote:

> Your most important words where: "Critical Services", does the FCC
> consider amateur radio such a service?
> ...

Hmmm...how much campaign money does the ARRL give???...

3960. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 21:09:54 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <CA44c.6318$C51.52257@attbi_s52>
Source record: 98532
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

Interesting photo but NO PATTERN

Dr. Slick wrote:

> Hello,
>
> I just finished building this one:
>
> http://www.drslick.org/Temp1/yagi929.jpg
>
> It's quite unusual, in that there are no directors and two
> reflectors.
>
> Here's the H-plane plot (the pattern looking down on the antenna
> from above, when the elements are vertical) in the yagi optimizer
> program that i used:
>
> http://www.drslick.org/Temp1/yagi929.jpg
>
>
> It's an interesting method that my friend used to get the
> pattern we wanted. We couldn't use the optimization algorithms,
> because these are designed to maximize the frontal lobe (can become
> quite narrow in span), whereas we wanted something with a 180 degree
> pattern.
> Notice it's about only about -2dB at 90 and 270 degrees. Also
> note that the outer edge of the pattern is about 4.51 dBi, so the dBd
> (decibals over a dipole) will be somewhere around +2.4dBd or so.
> This isn't that much gain, we realized, but the constraining
> factor was to make the yagi as compact as possible, so as to keep the
> landlord quiet. So we ended up with 3 elements minimum, in order to
> achieve the pattern and get close to 50 ohms.
>
> This antenna was designed for use when you are on the edge of
> your city, and you don't wanna waste ERP into the mountains or
> whatnot.
>
> As you can see in the Jpeg, it's built with HomeDepot stuff: 2"
> pvc and 5/16" treaded stock rod, which comes in lengths of 3 feet,
> with nuts used to attach lugs that are soldered to an SO-239, and for
> attaching to the PVC itself. Buy the connecting "link" nuts (they are
> longer than regular nuts), and you can put these on the ends to tune
> the lengths for best SWR.
>

> Here's the basic plans:
>
> Position (inches) 1/4 wavelength
> (inch)x two
>
> Driven element: 0 29.4"
> Reflector 1: 12" 38.01"
> Mast: 48" try for non-resonant
> length
> Reflector 2: 58" 32"
>
>
> So you will obviously have to make a two times the 1/4
> wavelength that you see, to make a dipole. The DE has a space between
> the elements, but the reflector sections can be attached inside the
> PVC.
>
> Supposedly, the mast has no effect at a distance of 48" from
> the DE, but when i simulated this in the YO, the length of the mast
> DID matter, so it's advised that one make the mast at a non-resonant
> length, which for 92.9 megs would be avoiding a multiple of 5 feet.
>
> I didn't get a chance to measure the F/B ratio, nor do i really
> have the proper equipment to do so, but it's certainly directional, as
> a field test has proven.
>
> Questions and comments appreciated.
>
>
> Dr. Slick
>
> (not a real Doctor)

3961. Re: Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 21:20:57 UTC
From: Mike Coslo <mjc5@psu.edu>
Message-ID: <4050D839.1060808@psu.edu>
Source record: 98533

Richard Clark wrote:
> On Thu, 11 Mar 2004 19:16:27 GMT, nospam_deepsea_77@yahoo.com (Space
> Charge) wrote:
>
>
>>I live on a small plot in a canyon (very steep canyon walls), and
>>between the tiny plot, CC&R's, and the very strong likelyhood of a
>>local chapter of Busybodies, Snoops and Ham-Haters (Local 557) being
>>present, the logical choice of antenna for 80M seemed to be either a
>>Magloop or a 6-slinky antenna w/a tuner, located inside the garage
>>running across the roof peak (only 20 feet).
>>
>>Tried the slinky w/tuner, it loaded up just fine, but it turned out to
>>be a very good dummy load on 80M, and little else. Noisy as all
>>getout, too, mostly just gets local QRN.
>>
>>Question: Will the 80M Magloop be any better, or should I just save my
>>effort and try something else?
>>
>>Thanks to the group,
>>
>>Lin/KJ6EF
>
>
> Hi Lin,
>
> Small antennas of any design (that is dipole or loop) suffer from the
> amount of power that goes to radiation compared to the power that goes
> up in heat. Without more geometrical details (like what is the
> maximum length dipole, or the greatest perimeter of loop you can
> support) speculations could run from dismal to aggressively tepid.
>
> Let us consider you building a small 1Meter diameter loop from 1 inch
> stock copper tubing:
> Fo 1M diameter Efficiency with skin effect loss
> 160M 29 ï¿½Ohms 0.2%
> 80M 500 ï¿½Ohms 2.4%
> 60M 1.5 mOhms 6%
> 40M 7.5 mOhms 21%
> 30M 24 mOhms 42%
> 20M 120 mOhms 75%
>
> The second column with the ï¿½Ohms leading the way show the radiation
> resistance for that band. At low frequencies it is so small that even

> the low resistance of this large conductor wipes it out! The same
> applies for a short dipole (irrespective of it being a slinky, which
> being steel wire of smaller diameter, makes it far worse).
>
> In your place, I would suspend a stove pipe size dipole from the roof
> beam and drive it with a small coupling loop. It will still be quite
> High Q'd requiring frequent tuning to move about the band. Take care
> to insulate/isolate the ends from combustible material.

Of course I don't know too many people that would want to operate 80 meters with a 1 meter magloop!

Lin, could you put up a larger magloop with maybe a 3 meter diameter? Still not super, but a lot better. If you do it right, you might be able to convince the locals that it is an art project!

- Mike KB3EIA -

3962. Re: Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 21:58:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1en15055ikgq59kv3o48l2s7e3l2u4asuq@4ax.com>
Source record: 98534

On Thu, 11 Mar 2004 16:20:57 -0500, Mike Coslo <mjc5@psu.edu> wrote:

>
> Of course I don't know too many people that would want to operate 80
>meters with a 1 meter magloop!
>
> Lin, could you put up a larger magloop with maybe a 3 meter diameter?
>Still not super, but a lot better. If you do it right, you might be able
>to convince the locals that it is an art project!
>
> - Mike KB3EIA -

Hi Mike,

There is certainly no good reason to do it with a 1 meter loop, I will agree. Others in this group may argue it is more efficient per unit length (a blighted argument, Lin, take no notice of such claims). However, the 1 meter size does conform to the commercial units offered (although not for these low bands for good reason). Barring those dimensions I suggested be revealed, we can continue.

Your simple tripling does a considerable difference by raising the radiation resistance to all of 38 mOhms (which if we retain that same 1 inch copper tubing allows for much better efficiency and consequently success. Care should be taken to observe this value is roughly 2000 times smaller than the conventional dipole, and as such, every effort should be applied towards keeping Ohmic losses low.

73's
Richard Clark, KB7QHC

3963. Re: Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 22:11:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2qo66$jk8$1@titan.btinternet.com>
Source record: 98535

You will find a magloop of the same order of size as a centre-loaded dipole to have a much superior performance.

The disadvantage of the magloop is the high cost of the vacuum tuning capacitor.

Program MIDLOAD will assist with design of a short centre-loaded horizontal dipole. But it will only be a single-band job.

Program MAGLOOP4 will assist with design of a 1.5 or 2-metre square or circular magloop for 80 meters which will also work even better on 40 meters. Use 1" diameter copper pipe.

Download programs in a few seconds from website below and run immediately. The performances of the two types of antenna can be compared.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

3964. Re: Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 22:45:31 UTC
From: Ken Luther <sparkzz@aol.com>
Message-ID: <qY54c.46696$JN2.25896@bignews4.bellsouth.net>
Source record: 98536

Hello,

I took 2, 65 foot long pieces of wire, and starting in the middle of my
attic space, zigzagged through the rafters from the center to
one end of the attic, then the other side to the other end, fed it with
ladder line (actually, 300 ohm twin lead tv cable) and can
work stations a 1000 miles away.

Plays heck with the telephone, though.

Ken

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c2qo66$jk8$1@titan.btinternet.com...
> You will find a magloop of the same order of size as a centre-loaded
dipole
> to have a much superior performance.
>
> The disadvantage of the magloop is the high cost of the vacuum tuning
> capacitor.
>
> Program MIDLOAD will assist with design of a short centre-loaded
horizontal
> dipole. But it will only be a single-band job.
>
> Program MAGLOOP4 will assist with design of a 1.5 or 2-metre square or
> circular magloop for 80 meters which will also work even better on 40
> meters. Use 1" diameter copper pipe.
>
> Download programs in a few seconds from website below and run immediately.
> The performances of the two types of antenna can be compared.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

3965. Re: Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-11 22:50:26 UTC
From: Ken Luther <sparkzz@aol.com>
Message-ID: <1164c.46713$JN2.14850@bignews4.bellsouth.net>
Source record: 98537

Add a tuner, and it makes a great multiband dipole.

Might even be better yet if you use and WINDOM type configureation.
(about 84 feet one side, about 42 on other) then twin lead and a tuner.

"Ken Luther" <sparkzz@aol.com> wrote in message
news:qY54c.46696$JN2.25896@bignews4.bellsouth.net...
> Hello,
>
>
> I took 2, 65 foot long pieces of wire, and starting in the middle of my
> attic space, zigzagged through the rafters from the center to
> one end of the attic, then the other side to the other end, fed it with
> ladder line (actually, 300 ohm twin lead tv cable) and can
> work stations a 1000 miles away.
>
> Plays heck with the telephone, though.
>
> Ken
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:c2qo66$jk8$1@titan.btinternet.com...
> > You will find a magloop of the same order of size as a centre-loaded
> dipole
> > to have a much superior performance.
> >
> > The disadvantage of the magloop is the high cost of the vacuum tuning
> > capacitor.
> >
> > Program MIDLOAD will assist with design of a short centre-loaded
> horizontal
> > dipole. But it will only be a single-band job.
> >
> > Program MAGLOOP4 will assist with design of a 1.5 or 2-metre square or
> > circular magloop for 80 meters which will also work even better on 40
> > meters. Use 1" diameter copper pipe.
> >
> > Download programs in a few seconds from website below and run
> immediately.
> > The performances of the two types of antenna can be compared.
> > ----
> > ....
> > Regards from Reg, G4FGQ
> > For Free Radio Design Software go to
> > http://www.btinternet.com/~g4fgq.regp

> > ....
> >
> >
>
>

3966. Re: Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 00:34:12 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <40510504.5F02F871@shaw.ca>
Source record: 98538

Reg Edwards wrote:
>
> You will find a magloop of the same order of size as a centre-loaded dipole
> to have a much superior performance.
>
> The disadvantage of the magloop is the high cost of the vacuum tuning
> capacitor.
>
Reg, since when does the tuning cap have to be a vacuum variable. There
are alternatives such as wide spaced variables, trombones, and other
ingeneous types.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3967. Direction finding antenna technology

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 02:59:50 UTC
From: George <look@signature_to.reply>
Message-ID: <GI94c.16185$%06.15922@newsread2.news.pas.earthlink.net>
Source record: 98539

I posted an inquiry (below) regarding my search for a very small DFing antenna. I received some much appreciated replies, but not quite what I was looking for.

Here's a link to a commercial product:
http://store.yahoo.com/fulfillmentadventures/baavtr.html

This product displays bearing and distance to a transmitter over a very short range, operating below 500 kHz. This is the physical size I had in mind.

I'd like to be able to build a similar unit in the 144 MHz band for direction finding over short distances. In other words, for use on the final leg of a DF contest where the transmitter is buried in brush in a remote area. A parasitic array or even a single loop wouldn't be as rugged or hand-holdable as I'd like.

Does anyone know what antenna technology is used in this product to be able to develop directionality at such a low frequency with such a small size?

I suppose I could ask the manufacturer, but they might not want to disclose their design info. Or, I could buy one for big $$$ and try to figure it out, but that's not a sure thing either ... :o)

Thanks for any help.

George, K6GW

3968. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 03:10:50 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <_S94c.2896$Pa7.67232@bgtnsc05-news.ops.worldnet.att.net>
Source record: 98540

Hi Walt,

I am quite surprised and disappointed that you commented on my review of
Steve Best's QEX articles in the manner quoted here:

> On Thu, 11 Mar 2004 09:17 Walter Maxwell wrote:

> And it also totally supports your argument with Gene, who apparently
> doesn't get it either, because I heard him claim that Steve's article is one of
> the most illuminating and definitive he's read. Unfortunately, Steve's QEX
> article is total BS.
>
> Walt, kW2DU

****

Here is an exact quote from my email to you dated January 31, 2003.

Hi Walt,

I'm back.

I have re-read the Best QEX article, I have read your rebuttal
carefully, and I have re-read parts of Reflections II.

I have to say that I believe the QEX article in question is fair and
correct. I cannot find a single flaw in it.

I have documented my response by adding comments to the rebuttal draft
you sent me the other day. My comments are in red.

In summary, I think the QEX article is completely correct in items 1, 2,
and 3. I am less comfortable about making any sort of definitive
statement on item 4.

I have been aware of the controversy for some time, and I am somewhat
dumbfounded by the entire matter.

I tacitly believed that all of this stuff had been fully defined,
understood, and non-controversial for many decades. Certainly there is
no new science in classical transmission line theory in 2003.

To the best of my understanding this entire matter has somewhat the
character of a tempest in a teapot. I have not found the slightest
evidence that your model and Steve Best's model disagree in any
measurable way. Clearly the insides of the models are different, but the
visible, measurable parts are not.

Is there a single case in which Best's model gives the wrong answer by any measurement technique?

Is there a single case in which your model gives the wrong answer by any measurement technique?

From a visualization and conceptualization point the models are quite different. You note that many engineers appreciate your model as it provides them a good understanding of the reflection behavior. To be brutally honest, I prefer the approach taken by Best. I like the equations to balance explicitly, and I am less comfortable with relying on concepts like virtual opens and shorts.

Again, I do not see any physically measurable difference in the output from the models. The rest is philosophy.

<snip of irrelevant pleasantries>

****

Soooo, Walt, what did I write that elicited your unkind comment?

73,
Gene
W4SZ

3969. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 03:51:35 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <bta4c.3011$Pa7.71715@bgtnsc05-news.ops.worldnet.att.net>
Source record: 98541

Cecil,

OK, I will 'see' your references and 'raise' my bid to Born and Wolf "Principles of Optics", 7th edition.

I recommend section 1.6, "Wave propagation in a stratified medium. Theory of dielectric films". This section runs from page 54 to page 74, and it describes in full detail everything you would want to know about propagation of waves in multilayered structures.

There is a disclaimer in the introduction to this section which says, "For the treatment of problems involving only a small number of films it is naturally not necessary to use the general theory, and accordingly we shall later describe an alternative and older method based on the concept of multiple reflections." The reference is to section 7.6 "Multiple-beam interference", which runs from page 359 to page 409.

Similar sections are included in the 6th edition of this book, on pages 51 to 70 and 323 to 367 respectively. I am sure you can find one or both of these editions in the TAMU library. I prefer the 7th edition, as it seems easier on the eyes.

If you choose not to actually read these references I will tell you that the first section is a full-blown Maxwell's equations treatment, and the second section employs an interfering wave treatment.

What I find interesting is that there is not one mention of bouncing energy waves or waves that have disappeared but their energy lives on. If you read your favorite Melles-Griot material carefully without adding your own spin (how else could it be, etc.) you will see that they do not discuss bouncing energy waves either. You will notice that M-G say the energy "appears" in the transmitted wave. This is good, since we like to believe conservation of energy is maintained. M-G do not discuss the mechanism. All of the stuff about bouncing energy rejoining the forward wave is purely in your imagination.

I think I have finally figured out the root of the disagreement. Your approach is similar to a one-trick pony. You have latched onto the concept of interference to the exclusion of any other valid approach. As a consequence it becomes *necessary* to imagine such things as bouncing energy waves. The Maxwell's equations approach does not require this sort of crutch. Try it, you might like it.

I am quite familiar with both analytical methods, and I am comfortable in using either one. The key is understanding when a given analytical technique will be the most useful, most direct, most intuitive, and so on. I have nothing against interference, but its misapplication is like

using a pipe wrench to drive a nail while a hammer is right at hand.

73,
Gene
W4SZ

Cecil Moore wrote:

>
> If that is beyond your comprehension, just say so but, in reality, those
> interfering component waves obey the laws of physics as explained in
> _Optics_, by Hecht and on the Melles-Groit web page:
>
> http://www.mellesgriot.com/products/optics/oc_2_1.htm

3970. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 03:52:24 UTC
From: Gerry Wheeler KG4NBB <gwheelerz@qolpublishing.com>
Message-ID: <c2rc5oecg1@xuxa.iecc.com>
Source record: 98542
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

On Tue, 09 Mar 2004 16:46:54 +0000, Dennis wrote:

> In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
>
> Yes, I have one of these clocks also. The thing is, these clocks are set
> 6 times in a 24hr perod by the WWVB signal. The rest of the time the
> time base is an ordinary crystal.

Mine is set only once per day, sometime between midnight and 4 am.

I was under the impression that the reason this was done is that the signal is too weak to be decoded during other times of the day. In fact, I have some (admittedly very inexpensive) atomic clocks that have *never* decoded the signal here in Florida.
--
Gerry Wheeler KG4NBB
Naples, FL
N26.28 W081.76

3971. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 04:12:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3sd250hnlsceocvo13dmeu1a50srru5pnk@4ax.com>
Source record: 98543

On Fri, 12 Mar 2004 03:51:35 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>The Maxwell's equations approach does not require this
>sort of crutch. Try it, you might like it.

Hi Gene,

It's not about being correct, it's about "truth" and proving the great
satan Steve wrong. When you've been flashed fried, facts don't
matter anymore. ;-)

73's
Richard Clark, KB7QHC

3972. Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 04:23:13 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86y8q6r8we.fsf@duchess.twilley.org>
Source record: 98544

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

What do the following things have in common: my multi-band dipole, my
dummy load, a toaster element, and a 100W lightbulb?

Answer: I can connect all three to my antenna tuner, get a reasonable
SWR match, and transmit into them.

Now which one makes for the more efficient radiator[1]?

Answer: I have no idea.[2]

What's the best way to find out for what bands (if any) my current
antenna is best suited? Would something like the Antenna Analyzer II
(http://www.amqrp.org/kits/antanal/) or the 'Tenna Dipper
(http://4sqrp.com/kits/kits.htm) answer this question?

Those two devices only seem to be good at answering the following
question: "At what frequency does this antenna/feedline have the
lowest SWR?". I don't think that this question is the same question
that I asked -- in other words, I am not convinced that the
antenna/feedline with the lowest SWR is necessarily the most efficient
radiator, especially when an antenna tuner is involved.

To those who say "the one that gets you more QSOs is the best", I'd
like to say that since the weekend I set up the antenna (the weekend
of the last California QSO Party) I've had *one* QSO, and now that
person (several towns away) can't clearly hear me when I transmit with
100W on any of the four HF bands I've tried.

Does anyone have any real answers (or at least good suggestions to
collect more information) for me?

Jack.
(a little frustrated, yeah)

[1] I define the most efficient radiator as the one which pushes out
the most signal for a given power level on a given frequency. If
this definition is in error, helping me correct this could render
the entire point moot.

[2] Well, I'm almost positive the order is: dipole, lightbulb,
toaster element, dummy load. Almost. I'm not sure where the
dipole fits in, to be honest.
- --
Jack Twilley
jmt at twilley dot org

```
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAUTs2GPFSfAB/ezgRApcvAKDts0VgygyFYwtSQUKtaBkruG0xRgCg6NLH
cnKoG0xJ4nJLZESRPD8D6ZI=
=5rc/
-----END PGP SIGNATURE-----
```

3973. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 04:28:02 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <ttd2509viufdnvte1d9eksmfstd0c94e8b@4ax.com>
Source record: 98545

On Fri, 12 Mar 2004 03:51:35 GMT, Gene Fuller <W4SZzzzzzz@att.net> wrote:

>Cecil,
>
>OK, I will 'see' your references and 'raise' my bid to Born and Wolf
>"Principles of Optics", 7th edition.
>
>I recommend section 1.6, "Wave propagation in a stratified medium.
>Theory of dielectric films". This section runs from page 54 to page 74,
>and it describes in full detail everything you would want to know about
>propagation of waves in multilayered structures.
>
>There is a disclaimer in the introduction to this section which says,
>"For the treatment of problems involving only a small number of films it
>is naturally not necessary to use the general theory, and accordingly we
>shall later describe an alternative and older method based on the
>concept of multiple reflections." The reference is to section 7.6
>"Multiple-beam interference", which runs from page 359 to page 409.

Well, Gene, you apparently deny that 'bouncing' waves exist. So what exactly are 'multiple reflections'?

>Similar sections are included in the 6th edition of this book, on pages
>51 to 70 and 323 to 367 respectively. I am sure you can find one or both
>of these editions in the TAMU library. I prefer the 7th edition, as it
>seems easier on the eyes.
>
>If you choose not to actually read these references I will tell you that
>the first section is a full-blown Maxwell's equations treatment, and the
>second section employs an interfering wave treatment.

So I now ask, if your selected reference discusses interfering wave treatment and multiple reflections in the explanation of impedance matching, then why do you consider Cecil's position concerning reflected energy joining the forward wave as purely in his imagination? Seems as if you're wearing opaque glasses backward.

>What I find interesting is that there is not one mention of bouncing
>energy waves or waves that have disappeared but their energy lives on.
>If you read your favorite Melles-Griot material carefully without adding
>your own spin (how else could it be, etc.) you will see that they do not
>discuss bouncing energy waves either. You will notice that M-G say the
>energy "appears" in the transmitted wave. This is good, since we like to
>believe conservation of energy is maintained. M-G do not discuss the
>mechanism. All of the stuff about bouncing energy rejoining the forward
>wave is purely in your imagination.

Imagination, indeed!

>I think I have finally figured out the root of the disagreement. Your
>approach is similar to a one-trick pony. You have latched onto the
>concept of interference to the exclusion of any other valid approach. As
>a consequence it becomes *necessary* to imagine such things as bouncing
>energy waves. The Maxwell's equations approach does not require this
>sort of crutch. Try it, you might like it.

Gene, multiple reflections in wave mechanics are the basic tools that accomplish impedance matching--no way are the reflected waves any sort of a crutch. There can be NO matching of different impedances without reflections. How could there not be reflections when electromagnetic waves encounter a diffferent impedance when going from medium to another?

>I am quite familiar with both analytical methods, and I am comfortable
>in using either one. The key is understanding when a given analytical
>technique will be the most useful, most direct, most intuitive, and so
>on. I have nothing against interference, but its misapplication is like
>using a pipe wrench to drive a nail while a hammer is right at hand.

Wave interference is the total basis for all impedance-matching operations. There is no misapplication of wave interference, and your assertion that the pipe wrench and hammer apply here is absurd.

If you have a copy of QEX for Mar/Apr 1998 please review an article there concerning this subject. It just might give you the opportunity of looking at the concept from a somewhat different perspective.

Walt, W2DU

3974. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 05:09:16 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40514630_2@corp.newsgroups.com>
Source record: 98546

Gene Fuller wrote:
> If you choose not to actually read these references I will tell you that
> the first section is a full-blown Maxwell's equations treatment, and the
> second section employs an interfering wave treatment.

Everyone already knows the end results so Maxwell's equations offer no
clues as to what actually happens in reality in the process of
yielding those results. The interfering wave treatment is the only one,
to the best of my knowledge, that yields clues as to the physical events
involved. What happens has to obey the laws of physics including the laws
of interference and conservation of energy and momentum.

> What I find interesting is that there is not one mention of bouncing
> energy waves or waves that have disappeared but their energy lives on.

Gene, neither have I ever said anything about "bouncing waves". That is entirely
a diversionary invention of yours. I have talked about reflected waves, Dr. Best
has talked about reflected waves, and the Melles-Griot web page also talks about
reflected waves. You are on record as asserting that reflected waves don't exist
thus disagreeing with Melles-Griot. Have you ever used a TDR?

> If you read your favorite Melles-Griot material carefully without adding
> your own spin (how else could it be, etc.) you will see that they do not
> discuss bouncing energy waves either.

Neither have I ever discussed "bouncing energy waves". That is your very
own diversion from subject matter that you are apparently loathe to discuss.
The Melles-Griot web page indeed does discuss destructive interference between
two rearward-traveling reflected waves, the "lost" energy of which, winds up
traveling in the forward direction toward the load.

> You will notice that M-G say the energy "appears" in the transmitted wave.

Is that anything like angels appearing to the Virgin Mary? :-)
"Appears", in the M-G context means "coherently joins".

How does the "lost" energy from two interfering rearward-traveling waves
appear in the forward-traveling transmitted wave energy without changing
direction? Please don't just ignore that question.

Dr. Best dismissed the rearward-traveling energy and simply magically re-
introduced it into the forward wave. Do you also believe in magic? Dr. Best
also denied that interference had anything to do with matching when, in reality,
interference has everything to do with matching. A Z0-match point in a
feedline with reflections is impossible without interference.

Why didn't you object to Dr. Best's use of "bouncing waves"? Here's a quote from his article: "When the system reaches the steady state, the two rearward-traveling waves at the match point are 180 degrees out of phase with respect to each other and a complete cancellation of both waves occurs."

That is a true statement and Melles-Griot and I have said exactly the same thing. The question is: What happens to the energy in those cancelled waves? It doesn't continue on toward the source. It doesn't stand still. It is not destroyed. Can you guess what happens to it? Melles-Griot says it appears in the forward wave. Do you think "appears" is a magic word? Can energy suddenly appear from nowhere?

Hecht in _Optics_ tells us that added constructive interference energy always originates from and is equal in magnitude to the lost destructive interference energy. Anything else violates the conservation of energy principle. The answer is obvious. Destructive interference energy left over from the cancellation of two rearward-traveling reflected waves changes direction and appears in the forward wave. There is simply no where else for it to go.

> I think I have finally figured out the root of the disagreement. Your
> approach is similar to a one-trick pony. You have latched onto the
> concept of interference to the exclusion of any other valid approach.

Nope, I'm open for any other valid approach but nobody has furnished another one so far. I'm not interested in net answers. I'm interested in explaining the physical process within the accepted laws of physics. No magic or steady state short cuts accepted.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3975. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 05:26:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40514a46_2@corp.newsgroups.com>
Source record: 98547

Richard Clark wrote:

> Gene Fuller <W4SZzzzzzz@att.net> wrote:
>>The Maxwell's equations approach does not require this
>>sort of crutch. Try it, you might like it.
>
> It's not about being correct, it's about "truth" and proving the great
> satan Steve wrong. When you've been flashed fried, facts don't
> matter anymore. ;-)

Maxwell's equations yield answers but give no clue as to the
detailed physical process involved. Since everyone already
knows the answers, Maxwell's equations are no help at all
in explaining the 1, 2, 3, ... step-by-step process.

Here's a quote from Steve's article: "When the system reaches the
steady state, the two rearward-traveling waves at the match point
are 180 degrees out of phase with respect to each other and a complete
cancellation of both waves occurs."

I agree with that statement. But when I ask what happens to the energy
in those two cancelled waves, all I get is silence. So Richard, what
happens to the energy in those two cancelled waves? Destroyed? Bleeds
off to a parallel universe? Routed through a black hole for constructive
interference in the opposite direction? The answer is more than obvious.
Maxwell's equations tell us that all the energy in a Z0-matched system
winds up incident upon the load. That necessarily includes all the
energy in the rearward-traveling cancelled waves.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

3976. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 05:39:13 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <52c4c.1707$Mq3.564636778@newssvr11.news.prodigy.com>
Source record: 98548

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0knu40losrtkgrhbfng4funhk2rr2468ls@4ax.com...
...
> 'Sir, you are irascible,' said Boswell;
> 'you have no patience with folly or absurdity.'"

Was that before, or after, he poked Rousseau's wife?

--
Steve
KI5YG
.

3977. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 05:48:14 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403112148.6573bd88@posting.google.com>
Source record: 98549
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

Dave Shrader <david.shrader@comcast.net> wrote in message
news:<CA44c.6318$C51.52257@attbi_s52>...
> Interesting photo but NO PATTERN
>

Opps! Here is the H-plane plot:

http://www.drslick.org/Temp1/yagiplot.jpg

It was an interesting usage of the program, in that we used a
"dummy" reflector that was very far away from the DE, and then used
two directors as reflectors (notice on the plot that the lobe is
actually pointed in the 180 degree direction).

Taking a look at the photo again:

http://www.drslick.org/Temp1/yagi929.jpg

You will notice the 4 turns of 4" diameter coils in the RG-213
coax, just before the feedpoint (SO-239), using a plastic tie-wrap.
You can use a balun instead, but i have never done this before,
perhaps one of you out there has something i could try in the future.
It would be a 1:1 in this case.
You'll also notice that i didn't just leave the coax hanging off
the feed point, as this might ruin the pattern and impedance. I tried
to keep the coax at 90 degrees to the elements by tie-wrapping it to
the PVC.

It would be nice to borrow an anechoic chamber with the proper
field-strength meter, and see how closely the actual unit matches the
YO program in the H-plane.

Great fun, and it should be able to handle up to 500 watts or so,
but i don't recommend using anything more than 1 mW or so... hehehe!

Questions and comments appreciated.

Slick

3978. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 06:44:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tgm250lihiupl0hr7ni1oookgrtv0kmq78@4ax.com>
Source record: 98550

On Thu, 11 Mar 2004 23:26:43 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Maxwell's equations yield answers but give no clue as to the
>detailed physical process involved.

Clueless, hmm?

>Since everyone already knows the answers,

All the answers and no clues, even more curious.

>Maxwell's equations are no help at all
>in explaining the 1, 2, 3, ... step-by-step process.

You got more problems than clues and answers.

>Here's a quote from Steve's article

Ah, the great satan having been invoked. How'd I peg that so square
on the head?

>
>I agree with that statement. But when I ask what happens to the energy
>in those two cancelled waves, all I get is silence.

That's all it merits,

>So Richard, what
>happens to the energy in those two cancelled waves? Destroyed? Bleeds
>off to a parallel universe? Routed through a black hole for constructive
>interference in the opposite direction? The answer is more than obvious.

From those three alternatives drawn from a hat? Three card monte is a
more honest game. You forgot the part about truth, justice and the
american way....

>Maxwell's equations tell us ...

And here you told us that maxwell's equations were clueless, answers
that described nothing and no help at all - unless they pass through
your model.

Well, I did say this was more entertaining than video on demand.
Lower bandwidth too.

73's
Richard Clark, KB7QHC

3979. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 06:56:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <idn250duts511m434iscel4t22ncn83201@4ax.com>
Source record: 98551

On Fri, 12 Mar 2004 05:39:13 GMT, " Stephen Cowell"
<scowell@sbcglobal.net> wrote:

>
>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>news:0knu40losrtkgrhbfng4funhk2rr2468ls@4ax.com...
>...
>> 'Sir, you are irascible,' said Boswell;
>> 'you have no patience with folly or absurdity.'"
>
>Was that before, or after, he poked Rousseau's wife?
>__
>Steve
>KI5YG

Hi Steve,

There's couple things wrong with that, Who are you referring to and
in what context? Boswell, or Johnson, and certainly not discussed in
"The Life of Johnson" as Boswell was the more, um, adventurous and
more so stated in his "London Journal."

73's
Richard Clark, KB7QHC

3980. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 07:18:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <05o2501u8qq4ri1flvidjav6p29dnkf5n4@4ax.com>
Source record: 98552

On Thu, 11 Mar 2004 20:23:13 -0800, Jack Twilley
<jmt+usenet@twilley.org> wrote:
>What's the best way to find out for what bands (if any) my current
>antenna is best suited? Would something like the Antenna Analyzer II
>(http://www.amqrp.org/kits/antanal/) or the 'Tenna Dipper
>(http://4sqrp.com/kits/kits.htm) answer this question?

These are toys when it comes to the grist of your question. No
analyzer will answer what is best as that is a subjective issue.
Further, an antenna has more characteristics than feed point Z which
impact the nature of your enquiry far more.

A low antenna that warms the ground will look like a charmer to the
analyzer, but then so would your dummy load. Get the idea? You
already anticipate this I am sure.

The old methods, prior to the invention of analyzers, encompassed a
simple sanity/reality check with the field strength meter. Put one
100 wavelengths out and take a reading. Do the same with a buddy in
town. The differences should be telling. This will reveal how much
power has escaped the grip of loss.

Repeat with a DX contact (you and your buddy working the same remote
station). You already have a basis of comparison for line of sight
power levels, you can now determine how well your elevation angles
work out. If you buddy comes in #1 and has a higher antenna, you got
a clue where your next step should be. But higher, lower, whatever,
differences will be revealing. No differences? Well then perhaps
doing some Dale Carnegie courses are in order.

73's
Richard Clark, KB7QHC

3981. Re: Direction finding antenna technology

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 08:12:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <omr25018ic6hfgl6f26f5t796ad7i4e83r@4ax.com>
Source record: 98553

On Fri, 12 Mar 2004 02:59:50 GMT, "George" <look@signature_to.reply>
wrote:
>Does anyone know what antenna technology is used in this product to be able
>to develop directionality at such a low frequency with such a small size?

Hi George,

It's called a loopstick, been around for 50 or 60 years now. You can
find one in any pocket transistor radio. They probably gussied it up
with a pair of them for discrimination (driving the left/right
indicator).

If you are in a DF contest, you already have to carry the array, no?
So why carry more stuff? You might want to consider that with a
smaller antenna, your body becomes a bigger source of confusion
insofar as reflecting the signal (something the huge wavelength of
457KHz is immune to).

73's
Richard Clark, KB7QHC

3982. Re: Direction finding antenna technology

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 08:21:50 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403120021.7c833da4@posting.google.com>
Source record: 98554

If you _want_ to be found, presumably you use completely different
technology than if you're making a hide-and-seek game of it.

When you get really close to a hidden 146MHz transmitter, you can do a
lot of good simply with signal strength. You need a receiver (or
signal strength meter) which does not overload even for large signals,
however. If you insist on getting wavefront direction information,
and you have plenty of signal, it's possible to do it switching
rapidly between two antennas. They can be small and not spaced very
far apart and still work. I think there's a larger version known as a
"handyfinder." That close in, I never felt a need for directional
info. Note that you can also search on the third harmonic when close;
the hidden transmitter has to go to extremes to filter the third to a
low enough value you wouldn't be able to use it close in.

Cheers,
Tom

"George" <look@signature_to.reply> wrote in message
news:<GI94c.16185$%06.15922@newsread2.news.pas.earthlink.net>...
> I posted an inquiry (below) regarding my search for a very small DFing
> antenna. I received some much appreciated replies, but not quite what I was
> looking for.
>
> Here's a link to a commercial product:
> http://store.yahoo.com/fulfillmentadventures/baavtr.html
>
> This product displays bearing and distance to a transmitter over a very
> short range, operating below 500 kHz. This is the physical size I had in
> mind.
>
> I'd like to be able to build a similar unit in the 144 MHz band for
> direction finding over short distances. In other words, for use on the
> final leg of a DF contest where the transmitter is buried in brush in a
> remote area. A parasitic array or even a single loop wouldn't be as rugged
> or hand-holdable as I'd like.
>
> Does anyone know what antenna technology is used in this product to be able
> to develop directionality at such a low frequency with such a small size?
>
> I suppose I could ask the manufacturer, but they might not want to disclose
> their design info. Or, I could buy one for big $$$ and try to figure it
> out, but that's not a sure thing either ... :o)
>
> Thanks for any help.

>
> George, K6GW

3983. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 08:30:57 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86ekryjwla.fsf@duchess.twilley.org>
Source record: 98555

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Richard" == Richard Clark <kb7qhc@comcast.net> writes:

Jack> What's the best way to find out for what bands (if any) my
Jack> current antenna is best suited? Would something like the
Jack> Antenna Analyzer II (http://www.amqrp.org/kits/antanal/) or the
Jack> 'Tenna Dipper (http://4sqrp.com/kits/kits.htm) answer this
Jack> question?

Richard> These are toys when it comes to the grist of your question.
Richard> No analyzer will answer what is best as that is a subjective
Richard> issue. Further, an antenna has more characteristics than
Richard> feed point Z which impact the nature of your enquiry far
Richard> more.

That's pretty much what I figured. I tried to provide a definition
for best that was more objective than subjective.

Richard> A low antenna that warms the ground will look like a charmer
Richard> to the analyzer, but then so would your dummy load. Get the
Richard> idea? You already anticipate this I am sure.

Exactly. This is the same antenna that I've mentioned in the past,
less than twenty feet off the ground and less than five feet from the
house (which towers over the antenna by ten feet at its highest
point).

Richard> The old methods, prior to the invention of analyzers,
Richard> encompassed a simple sanity/reality check with the field
Richard> strength meter. Put one 100 wavelengths out and take a
Richard> reading. Do the same with a buddy in town. The differences
Richard> should be telling. This will reveal how much power has
Richard> escaped the grip of loss.

While I don't have a field strength meter, I do have a friend with a
DC-to-daylight receiver. He was able to receive me loud and clear
over a mile away. One hundred wavelengths would be twenty-four miles
- -- if he had a real antenna, he'd be perfectly situated for that kind
of test, but all he has is the whip that came with the receiver, so
I'm not sure that's going to be a valid test.

Richard> Repeat with a DX contact (you and your buddy working the same
Richard> remote station).

[... rest elided ...]

Ahahahaha. Richard, I've worked a DX contact *once*. That was day
one of the antenna's life, during the California QSO Party, when I
logged a contact with a guy in Germany. I have trouble working people
several towns over, and in fact have had only one QSO since the
weekend the antenna was installed. This part of the test is a little
optimistic.

Richard> 73's Richard Clark, KB7QHC

Thanks!

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAUXVFGPFSfAB/ezgRAt6eAKC2oX/dFOXKFNBixGsz7buhhr5GHgCfQqii
ayP//zJd4QWzPt5RG+x1kWk=
=zHNC
-----END PGP SIGNATURE-----

3984. Re: Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 09:11:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2rurs$li5$1@hercules.btinternet.com>
Source record: 98556

> Reg, since when does the tuning cap have to be a vacuum variable. There
> are alternatives such as wide spaced variables, trombones, and other
> ingeneous types.
>
> Irv VE6BP
>
==========

Not for a 1.5-metre diameter loop on 80m.

530 pF at 5000 volts.

Needs more than ingenuity.

3985. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 09:41:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2s0jl$oi2$1@hercules.btinternet.com>
Source record: 98558

Regardless of impedances, with a sensibly zero-loss line it's quite obvious ALL the power leaving the generator is dissipated in the load. There's nowhere else for the stuff to go.

If any power is NOT dissipated in the load due to any cause then it never leaves the generator.

What on earth have bouncing waves, virtual this that and the other got to do with it.

Reg, G4FGQ

3986. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 09:41:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <811350tngci8262j577jsln2ph758uhfvq@4ax.com>
Source record: 98557

On Fri, 12 Mar 2004 00:30:57 -0800, Jack Twilley
<jmt+usenet@twilley.org> wrote:
>While I don't have a field strength meter, I do have a friend with a
>DC-to-daylight receiver. He was able to receive me loud and clear
>over a mile away. One hundred wavelengths would be twenty-four miles
>- -- if he had a real antenna, he'd be perfectly situated for that kind
>of test, but all he has is the whip that came with the receiver, so
>I'm not sure that's going to be a valid test.
>
Hi Jack,

You need a rig with a good, calibrated readout. I should use the word "calibrated" with care. Actually it needs resolution and stability so that it can make comparisons. Using a step attenuator and its reading to achieve the same indication is the best method.

You still need someone else to compare against. Coming in loud and clear might easily (or poorly) be accomplished driving a leaky dummy load. A friend of mine once QSO'd her girl friend in AK all while on her dummy load (20M).

73's
Richard Clark, KB7QHC

3987. Re: Mobile antenna for 1296 MHz?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 12:47:02 UTC
From: tad danley <nospam@atsbcglobal.net>
Message-ID: <4051B146.3070806@atsbcglobal.net>
Source record: 98559

Crazy George wrote:

> We have been using Larsen 1296 antennas for many years, but they do not
> presently appear in their commercial catalog. Contact the HRO store in
> Mountain View and see if anyone remembers the actual model number or better
> yet, if they still have any in stock. They were NMO mount, and were either
> 5/8 over 1/2 or 1/2 over 1/2 wave, about 12" tall overall, 4 or 5 turn coil
> in the middle.
>
> --
> W5VPQ
> Crazy George
> Remove N O and S P A M imbedded in return address

That sounds like the ticket, George! Hopefully there are still some
available.

Thanks and 73,

--
* Do NOT use Reply *

Reply to K3TD via arrl dot net

Tad, K3TD

3988. Re: 4nec2 question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 13:26:55 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0403120526.10b529e7@posting.google.com>
Source record: 98560

"larry d clark" <buddycl@swbell.net> wrote in message
news:<1%%1c.4084$sG3.544@newssvr22.news.prodigy.com>...
> i've been modeling various antennas using 4nec2
> and was wondering just how accurate the data in
> the radiated-power and structure loss fields actually
> is?

They should be correct, because the data is extracted directly from
the data generated by the Nec2d engine.
In case you should not trust the Nec2dXS engine you can switch from
the Nec2dXS to the default Nec2d engine. You could also run the
examples from the Nec2 user-guide and check the results.

Or compare the results with the (demo) versions of commercial packages
like for instance Eznec or Necwin+.

Let me know if you think there are (major) differences.

Arie.

3989. Re: Slinky vs. Magloop on 80M question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 14:15:16 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <1053hg42b5vrh5f@corp.supernews.com>
Source record: 98561

I think you should move Lin. Way far off from there.

Butch

Space Charge wrote:
> I live on a small plot in a canyon (very steep canyon walls), and
> between the tiny plot, CC&R's, and the very strong likelyhood of a
> local chapter of Busybodies, Snoops and Ham-Haters (Local 557) being
> present, the logical choice of antenna for 80M seemed to be either a
> Magloop or a 6-slinky antenna w/a tuner, located inside the garage
> running across the roof peak (only 20 feet).
>
> Tried the slinky w/tuner, it loaded up just fine, but it turned out to
> be a very good dummy load on 80M, and little else. Noisy as all
> getout, too, mostly just gets local QRN.
>
> Question: Will the 80M Magloop be any better, or should I just save my
> effort and try something else?
>
> Thanks to the group,
>
> Lin/KJ6EF
>
>
> For email responses, remove "nospam_".

3990. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 14:30:50 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <c2shiqnec1@xuxa.iecc.com>
Source record: 98562
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave

Dennis,

I don't know what you mean by ordinary crystal, but even.001% is not very good. You may want to look at high accuracy temperature compensated oscillators. Depending on where you live, you may actually be able to phase lock your oscillator to the WWB carrier. You would have to use a phase detector that does not pull you off to one side if you lose the signal. Also, the ~3.58MHz color subcarrier on some TV stations is locked to a cesium standard.

Tam/WB2TT
"Dennis" <Howdy.Doody@howdydoody.net> wrote in message news:c2nubl$5c5$1@xuxa.iecc.com...
> In article <c2nejp$3c8$1@xuxa.iecc.com>, rhf-say-bye-bye@pacbell.net says...
> >
> >
> >= = = tommyknocker <tomynokr@uucp.hell> wrote in message
> >= = = news:<c2lq9s$6tv$1@xuxa.iecc.com>...
> >> Dennis wrote:
> >>
> >> > In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
> >> > >
> >> > >
> >> > >Dennis wrote:
> >> > >
> >> > >> HI,
> >> > >>
> >> > >> Does anybody have a circuit that will
> >> > >> decode the WWVB signal,and output to a clock
> >> > >> led circuit?
> >> > >>
> >> > >> TIA,
> >> > >>
> >> > >> Dennis
> >> > >>
> >> > >>
> >> > >Hi,
> >> > >Unless you want to have fun building a clock, there are many such clocks
> >> > >or watches out there. I wear a watch. Very accurate in time keeping.
> >> > >Tony, VE6CGX
> >> > >

> >> >
> >> > Yes, I have one of these clocks also. The thing is, these clocks
> >> > are set 6 times in a 24hr perod by the WWVB signal. The rest of the
> >> > time the time base is an ordinary crystal. I want my clock to be
> >> > set on a more continous basis. This could only happen with the
> >> > continous decoding of the signal. This is how the "professional"
> >> > clocks, such as those made by Spectracom work.
> >> >
> >> > -Dennis
> >>
> >> You'll find that most of the schematics on the net for atomic clocks
are
> >> of the crystal variety-they set once or twice a day with WWVB and the
> >> rest of the time use a crystal. You'll have to do some digging to come
> >> up with something that does continuous decoding, but I'm sure it's out
> >> there.
> >>
> >
> >
> >TK,
> >
> >For a normal 'ordinary' Consumer Time Standard that is Accurate to
> >within a Tenth of Second: Every Minute; Every Hour; Every Day . . .
> >The above Time Synchronization Process is more than adequate.
> >
> >~ RHF
> >.
> >Yes, for the "normal", "ordinary" consumer what you say is true.
>
> Fortunately or unfortunately I don't fall into that catagory,
> when it comes to time and frequency. I've been fascinated by
> time & frequency for quite a while now.
>
> -Dennis
>
>
>
>

3991. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 14:36:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4051cb0b_2@corp.newsgroups.com>
Source record: 98563

Reg Edwards wrote:

> Regardless of impedances, with a sensibly zero-loss line it's quite obvious
> ALL the power leaving the generator is dissipated in the load. There's
> nowhere else for the stuff to go.

Over any delta-length of time during steady-state:
Forward waves + reflected waves = standing waves + power to the load.
The net energy in the standing waves isn't delivered to the load
until the source is switched off.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

3992. Re: Direction finding antenna technology

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 14:37:08 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4051cd09_1@news1.prserv.net>
Source record: 98564

I am puzzled as to your actual requirement. Explanations and descriptions of the techniques and hardware to do what I *believe* you are asking have been published for years in innumerable journals and magazines. One specific application which comes to mind is the location of VHF/UHF ELT transmitters inside a hangar where they have been accidentally activated. Those are described in various flying publications. Real challenge inside a reflecting metal hangar where the transmitter might be in any one of a half dozen aircraft, and the signal appears to be stronger out in the middle of the room than near any of them. There are articles about amateur radio fox hunting (HF, VHF, MF) hardware published in all the English speaking countries I am aware of, and I see references to articles in many other languages as well. Just out of curiosity, I did a Yahoo search (based on your Yahoo reference) and found commercial products, references to many literature articles, construction plans, and other indeterminate citations. I used VHF, radio and "direction finders" as the search string. Maybe one of the problems here is that looking for a "DF antenna" is a fruitless search. It has to be a complete DF system to perform any useful function. Almost any antenna can be used as a DF antenna with appropriate support electronics. The big elephant cage DF antennas (FLR-9, FRD-10) use simple vertical monopoles as the actual antenna elements, but the system is much more complicated than that.

--
Crazy George
Remove N O and S P A M imbedded in return address

3993. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 14:43:34 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4051ce8d_4@news1.prserv.net>
Source record: 98565
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

If you put the array on a rotator and put a receive antenna with some sensitive output indicator beyond the near field, you can plot relative field, and thus accurate F/B by adjusting the power to the antenna for same received F/S at, say, 10 increments. Nothing else should change, so the relative field strength in the various directions should relate to each other. Ground reflections and absorption, and all the other artifacts will be constant unless you change something else.

```
--
Crazy George
Remove N O and S P A M imbedded in return address
"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0403112148.6573bd88@posting.google.com...
> Dave Shrader <david.shrader@comcast.net> wrote in message
news:<CA44c.6318$C51.52257@attbi_s52>...
> > Interesting photo but NO PATTERN
> >
>
> Opps! Here is the H-plane plot:
>
> http://www.drslick.org/Temp1/yagiplot.jpg
>
>
> It was an interesting usage of the program, in that we used a
> "dummy" reflector that was very far away from the DE, and then used
> two directors as reflectors (notice on the plot that the lobe is
> actually pointed in the 180 degree direction).
>
>
> Taking a look at the photo again:
>
> http://www.drslick.org/Temp1/yagi929.jpg
>
> You will notice the 4 turns of 4" diameter coils in the RG-213
> coax, just before the feedpoint (SO-239), using a plastic tie-wrap.
> You can use a balun instead, but i have never done this before,
> perhaps one of you out there has something i could try in the future.
> It would be a 1:1 in this case.
> You'll also notice that i didn't just leave the coax hanging off
> the feed point, as this might ruin the pattern and impedance. I tried
> to keep the coax at 90 degrees to the elements by tie-wrapping it to
> the PVC.
>
```

> It would be nice to borrow an anechoic chamber with the proper
> field-strength meter, and see how closely the actual unit matches the
> YO program in the H-plane.
>
> Great fun, and it should be able to handle up to 500 watts or so,
> but i don't recommend using anything more than 1 mW or so... hehehe!
>
> Questions and comments appreciated.
>
>
> Slick

3994. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 15:03:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2sjg1$dl3$1@titan.btinternet.com>
Source record: 98566

What happens when instead of switching off the generator the load is
disconnected?

3995. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 15:21:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4051d5af$1_2@127.0.0.1>
Source record: 98567

Gene Fuller wrote:
> What I find interesting is that there is not one mention of bouncing
> energy waves or waves that have disappeared but their energy lives on.

There's not one mention of "bouncing energy waves" in my postings
prior to your introduction of the term so in that area, I appear to agree
with Born and Wolf. I also agree with Born and Wolf that a one thin-film
layer can be analyzed using the older method of wave analysis and that's
exactly what I am doing. I am hoping that once people see how the thin-
film works, how an RF match point works will be obvious.

As far as energy living on, please complete the following.

_____________ is one example of energy being destroyed along with the
destruction of the source of the energy.

It is my understanding that "energy lives on" no matter what.
--
73, Cecil, W5DXP

3996. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 15:41:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4051da6f$1_2@127.0.0.1>
Source record: 98568

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Maxwell's equations yield answers but give no clue as to the
>>detailed physical process involved.
>
> Clueless, hmm?

Clueless with respect to the underlying processes. Extremely
accurate with respect to the net answers. Tomorrow I plan to
be in Austin. That statement says nothing about how I plan to
get there.

>>Here's a quote from Steve's article
>
> Ah, the great satan having been invoked. How'd I peg that so square
> on the head?

Does Steve know that you equate him to "the great satan"?

>>I agree with that statement. But when I ask what happens to the energy
>>in those two cancelled waves, all I get is silence.
>
> That's all it merits,

Why? It's an honest question. I am absolutely amazed that physicists
and engineers don't know what happens to the energy in canceled waves.
It cannot be destroyed, it cannot stand still, and it's not incident
upon the source. Wonder what happens to it? That's a very simple honest
question.

>>So Richard, what
>>happens to the energy in those two cancelled waves? Destroyed? Bleeds
>>off to a parallel universe? Routed through a black hole for constructive
>>interference in the opposite direction? The answer is more than obvious.
>
> From those three alternatives drawn from a hat? Three card monte is a
> more honest game.

Those are only three ridiculous possibilities. Another possibility is
what the Melles-Griot web page says: The energy apparently "lost" in
the destructive interference of two rearward-traveling reflected waves
is not lost at all. It appears in (coherently joins) the forward-traveling
wave. That's a simple answer to a simple question. Do you have a better one?

> And here you told us that maxwell's equations were clueless, answers
> that described nothing and no help at all

Maxwell's equations work to obtain the answer as does quantum electrodynamics. But those answers do not contain clues about the process. The process components are what is being discussed here.
--
73, Cecil, W5DXP

3997. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 15:47:27 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4051DB8F.4073934E@cwis.net>
Source record: 98469

Jack,
As stated, the only answer anyone can make to your
questions is, [2] I don't know.
SWR meters and antenna analyzers are nice, and handy,
things to have around, but they require a little thought
in their use. They aren't the "be all, end all" of
antenna instruments by themselves. Probably the most
'handy' measuring device for dealing with antennas is the
yardstick (or meter stick for those that would rather).
Antenna analyzers are probably the most 'handy' gadget
for finding out band/frequency an antenna is made for
that I've seen in years. But, and there are several 'buts'
that have to be taken into consideration when using one.
If you connect an analyzer to the feed line of your antenna
you are measuring where the whole 'system' (feed line and
antenna) are 'resonant', not just the antenna. The feed line
'modifies' what the analyzer 'sees' of the antenna, changing
the answer to, "What is the resonant frequency, and the input
impedance?". To make the antenna 'right', you have to get
rid of the feed line. OR, make it 'disappear' electrically.
You can do that by making the feed line an electrical 1/2
wave length at whatever frequency your antenna is supposed
to work at (or multiples of an electrical 1/2 wave length
if one isn't long enough to reach from the antenna to where
you are doing the measuring). The analyzer readings then
are for the antenna only since an electrical 1/2 wave length
of feed line is 'invisible' to the analyzer. (Takes a different
feed line length for each band.)
**[A thought about 'efficiency' here. Don't worry too much
about
efficiency, it isn't that important really. Of course you want
the most efficient antenna you can have, but that can change
with
any number of things, even with the exact same antenna. (Watch
the
fur being rubbed in the wrong direction with that statement!
LOL)
I'm talking about efficient 'results', not the characteristic
efficiency of a particular antenna. An antenna should be
mounted as
high as possible, away from anything around it. But, you can
only
put one in the space you have available, not always what would
be

the 'best' height/clearance, (right?), so make the best of what
you have and live with it.]**
Use that yardstick to measure the length of your multiband
antenna's elements. That will give you a rough idea where they
'should' be resonant (barring any loading coils, that makes
it a little more difficult). Plugging those lengths into the
'magic' formula, F = 234 / length(feet), will give you a 'ball
park'
idea of frequency for 1/4 wave lengths (one half of each
antenna).
Then it's just a matter of 'tweaking' the lengths for each band.
That doesn't do anything about input impedance, just resonance.
To
match the input impedance is a separate thing, and there are
several
methods of doing that. When both length and impedance matching
are
done, you will have the most 'efficiency' for the antenna in
~that~
particular configuration. It may not be exactly what you want,
but
that's more a result of how/where the antenna is mounted.
Anything and everything can change the usefulness of an
antenna,
which is due to the radiation pattern, which is/can be affected
by
how/where/when the antenna is put up (at night, in a snow storm,
at
the North Pole is the best 'when').
Having used 10 words where 2 may have been more 'efficient',
I'll
shut up...
'Doc

PS - A mobile antenna is usually only around 3 - 20% efficient
compared
to a 'properly' set up fixed antenna. They still work okay.

3998. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 15:51:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4051dcc7$1_2@127.0.0.1>
Source record: 98470

Reg Edwards wrote:
> What happens when instead of switching off the generator the load is
> disconnected?

A modern ham radio transmitter will fold back its output power
until it can dissipate all of it without damage. The protection
circuitry probably dissipates most of the power that had been
stored in the transmission line during steady-state full power
output.
--
73, Cecil, W5DXP

3999. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 16:21:25 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <9sl4c.4910$Pa7.128090@bgtnsc05-news.ops.worldnet.att.net>
Source record: 98471

Hi Cecil,

In a futile attempt to maintain my rapidly diminishing sanity I try to limit my role of playing Cecil's fool on RRAA to no more than two days a week. I will be off-line for a few days.

But first, here is a clue for the answer to your never-ending question.

Those reward traveling waves do not merely cancel at some "match point". They cancel everywhere. In other words they do not exist. There is no energy that needs to be explained away.

The model was set up to include these wave components, but the solution comes back to say that those components do not really have a non-zero amplitude. No harm done; this sort of thing happens all the time in the solution of science and engineering problems.

Oh, one more clue. I have nothing against waves. I make my living dealing with wave phenomena. But as the old song goes, I know when to hold 'em, and I know when to fold 'em.

Try hauling your ox back out of the ditch. There's a whole world out there.

73,
Gene
W4SZ

Cecil Moore wrote:

> Here's a quote from Steve's article: "When the system reaches the
> steady state, the two rearward-traveling waves at the match point
> are 180 degrees out of phase with respect to each other and a complete
> cancellation of both waves occurs."
>
> I agree with that statement. But when I ask what happens to the energy
> in those two cancelled waves, all I get is silence.

4000. 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 16:45:49 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403120845.cca6903@posting.google.com>
Source record: 98472

A question was asked about what use was 'Q'
To me Q showed its value with the introduction of the National Radio
HRO
a receiver with 2 RF stages and 3 IF stages. This receiver as
excellent receiver because it recognised that the mixture of
frequencies produced not only a desired frequency but also many other
undesired frequencies and while we used to use spark gap tranmissions
that were extremely wide the introduction of higher density spectrum
use produced a zillion frequency mixtures which are of no use.
The HRO by decreasing the spectrum received to exclude errant
frequencies increased the Quality (Q) of signal reception by
expanding the difference in signal level received compared to the
level of errant frequecies received (noise). This difference can be
analogous to the gain of an antenna
where noise introduced into a receiver must be overcome by the
required signal gain or there is no communication. The HRO did this by
its then unheard of
3 I.F. stages which provided a low noise floor. So Q does have a use
as it is inextricably bound to the Quality of communications and
everything that goes with it, it cannot be ignored.

More to come, let the attack begin.

Art

4001. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 17:13:25 UTC
From: richardharrison@webtv.net
Message-ID: <18299-4051EFB5-393@storefull-3256.bay.webtv.net>
Source record: 98474

Cecil wrote:
"But when I ask what happens to the energy in these two cancelled waves, all I get is silence."

It`s golden!

Cecil then wrote:
"Maxwell`s equations tell us that all the energy in a Zo-matched system winds up incident upon a load."

Would Maxwell lie to you?

The question must be hidden between the lines. It may be: What mechanism reverses the wave?

Terman may satisfy the questionn, whatever it is. Terman says of the incident wave:
"---everywhere on the line Eprime/Iprime=Zo.
Terman says of the reflected wave:
"---everywhere on the line Edouble prime/ Idouble prime= -Zo.

The difference is only the minus sign which indicates the reversed travel direction of the reflected wave.

Terman says on a line with an open-circuited load, that at the load, voltages of the incident and reflected waves have the same phase but the current of the reflected wave has the opposite phase from the reflected voltage.

For a transmission line with a short-circuited load, behavior is the opposite. Incident and reflected voltages are out of phase but the currents are in phase. But, there is a 180-degree phase difference between volts and amps in the reflected wave as in the open-circuit line case.

The point is that at a discontinuity, upon reflection the phase between voltage and current in a wave is reversed. That is, that either the phase of the volts or amps flips upon reflection, not both.

My assumption is that were the phase of both volts and amps reversed at the same time and place, you would see the same wave traveling in the same direction but delayed or advanced by 180-degrees. Its travel direction is unchanged.

Which is cause and which is effect? Often what is cause and what is effect can be interchanged. Volts across a resistor produce a current. Current in a resistor produces a voltage drop. Take your pick of cause or effect.

A reflection may be caused by a phase reversal between voltage and current. What causes a phase reversal? It`s the discontinuity. Stick a mirror that obstructs the path of a light beam in the path and you have a discontinuity. In electrical circuits we should remember Lenz and his immutable law among obstructions.

Best regards, Richard Harrison, KB5WZI

4002. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 17:19:23 UTC
From: radio913@aol.com
Message-ID: <20040312121923.25923.00001112@mb-m01.aol.com>
Source record: 98473

>If you put the array on a rotator and put a receive antenna with some
>sensitive output indicator beyond the near field, you can plot relative
>field, and thus accurate F/B by adjusting the power to the antenna for same
>received F/S at, say, 10ï¿½ increments. Nothing else should change, so the
>relative field strength in the various directions should relate to each
>other. Ground reflections and absorption, and all the other artifacts will
>be constant unless you change something else.
>

ok, that sounds like a good idea, with the rotator, keeping everything else
the same. This site:

http://radioproshop.com/antennaconcepts.htm

Says that the near-field is defined by Rmin=(2*D**2)/wavelength, where
D is the largest dimension of the antenna. So if we roughly say one wavelength
is 10 feet, and the largest dimension is the dipole, then we get Rmin=5 feet,
or about a 1/2 wavelength. This sounds a bit too close to me, perhaps the
far-field is better defined as, like, ten wavelengths or so?

Also, i don't really have a transmitter that I can vary the power that
much...maybe that's something i should make or get. Something variable at
least by 20dB or so.

Slick

4003. FS: MOTOROLA VHF SPECTRUM ANTENNA

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 17:50:29 UTC
From: cohenandy@yahoo.com
Message-ID: <5af9dbfa.0403120950.44f6d03e@posting.google.com>
Source record: 98475

VHF-FM MOBILE ANTENNA- Motorala spectrum series , Model RAD 401 OARB, tunable for 136-174 band. Base loaded. In original packing tube with instruction manual and all hardware. $45.00 Can ship. Cohenandy@yahoo.com or 508-612-1213.

4004. FS: MOTOROLA VHF MOBILE ANTENNA

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 17:52:33 UTC
From: cohenandy@yahoo.com
Message-ID: <5af9dbfa.0403120952.1f43b8ac@posting.google.com>
Source record: 98476

VHF-FM MOBILE ANTENNA- Motorala spectrum series , Model RAD 401 OARB, tunable for 136-174 band. Base loaded. In original packing tube with instruction manual and all hardware. $45.00 Can ship. Cohenandy@yahoo.com or 508-612-1213.

4005. Wilson Tetra Tower????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 18:00:19 UTC
From: Peter Ackermann <w4sfd@ispwest.com>
Message-ID: <r9u350hpa0sc8aiud6td805nqfhmenpsq7@4ax.com>
Source record: 98477

Looking for any info on Wilson Tetra Tower

Respect Direct

w4sfd@ispwest.com

4006. Re: 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 18:20:19 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c2sv13$21dmh6$1@ID-225206.news.uni-berlin.de>
Source record: 98478

There is QRS Quality of Received signal. Then there is Q, which is used in Filter design, and also there is Loaded Q, also used in filter, or selectivity design. Q is related to the losses of a tuned section, the L and C, R, the more R the less Q, less selectivity, more stages needed. There is a formula to calculate Q in terms of L,C and R. Remember the old TRF stages in early AM radio? More the better, and there is a formula for calculating the series of selectivity stages of equal stages. The more stages of selectivity, or more narrow the selectivity, more broadband noise rejection, the more sensitive the radio is, and sounds better.

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0403120845.cca6903@posting.google.com...
> A question was asked about what use was 'Q'
> To me Q showed its value with the introduction of the National Radio
> HRO
> a receiver with 2 RF stages and 3 IF stages. This receiver as
> excellent receiver because it recognised that the mixture of
> frequencies produced not only a desired frequency but also many other
> undesired frequencies and while we used to use spark gap tranmissions
> that were extremely wide the introduction of higher density spectrum
> use produced a zillion frequency mixtures which are of no use.
> The HRO by decreasing the spectrum received to exclude errant
> frequencies increased the Quality (Q) of signal reception by
> expanding the difference in signal level received compared to the
> level of errant frequecies received (noise). This difference can be
> analogous to the gain of an antenna
> where noise introduced into a receiver must be overcome by the
> required signal gain or there is no communication. The HRO did this by
> its then unheard of
> 3 I.F. stages which provided a low noise floor. So Q does have a use
> as it is inextricably bound to the Quality of communications and
> everything that goes with it, it cannot be ignored.
>
> More to come, let the attack begin.
>
> Art

4007. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 18:29:35 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405201c7$1_2@127.0.0.1>
Source record: 98479

'Doc wrote:
> PS - A mobile antenna is usually only around 3 - 20% efficient
> compared to a 'properly' set up fixed antenna.

Dang Doc, a mobile 104" whip is more efficient than that
on the CB band. :-)
--
73, Cecil, W5DXP

4008. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 18:36:04 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <tu-dncCPoLuXns_dRVn-gg@comcast.com>
Source record: 98480
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

If the second reflector is actually doing anything, which I doubt, you
should be using a non metallic mast, and not bringing the coax down between
the reflectors.

Tam/WB2TT

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0403111154.4260a1f5@posting.google.com...
> Hello,
>
> I just finished building this one:
>
> http://www.drslick.org/Temp1/yagi929.jpg
>
> It's quite unusual, in that there are no directors and two
> reflectors.
>
> Here's the H-plane plot (the pattern looking down on the antenna
> from above, when the elements are vertical) in the yagi optimizer
> program that i used:
>
> http://www.drslick.org/Temp1/yagi929.jpg
>
>
> It's an interesting method that my friend used to get the
> pattern we wanted. We couldn't use the optimization algorithms,
> because these are designed to maximize the frontal lobe (can become
> quite narrow in span), whereas we wanted something with a 180 degree
> pattern.
> Notice it's about only about -2dB at 90 and 270 degrees. Also
> note that the outer edge of the pattern is about 4.51 dBi, so the dBd
> (decibals over a dipole) will be somewhere around +2.4dBd or so.
> This isn't that much gain, we realized, but the constraining
> factor was to make the yagi as compact as possible, so as to keep the
> landlord quiet. So we ended up with 3 elements minimum, in order to
> achieve the pattern and get close to 50 ohms.
>
> This antenna was designed for use when you are on the edge of
> your city, and you don't wanna waste ERP into the mountains or
> whatnot.
>
> As you can see in the Jpeg, it's built with HomeDepot stuff: 2"
> pvc and 5/16" treaded stock rod, which comes in lengths of 3 feet,
> with nuts used to attach lugs that are soldered to an SO-239, and for

> attaching to the PVC itself. Buy the connecting "link" nuts (they are
> longer than regular nuts), and you can put these on the ends to tune
> the lengths for best SWR.
>
> Here's the basic plans:
>
> Position (inches) 1/4 wavelength
> (inch)x two
>
> Driven element: 0 29.4"
> Reflector 1: 12" 38.01"
> Mast: 48" try for non-resonant
> length
> Reflector 2: 58" 32"
>
>
> So you will obviously have to make a two times the 1/4
> wavelength that you see, to make a dipole. The DE has a space between
> the elements, but the reflector sections can be attached inside the
> PVC.
>
> Supposedly, the mast has no effect at a distance of 48" from
> the DE, but when i simulated this in the YO, the length of the mast
> DID matter, so it's advised that one make the mast at a non-resonant
> length, which for 92.9 megs would be avoiding a multiple of 5 feet.
>
> I didn't get a chance to measure the F/B ratio, nor do i really
> have the proper equipment to do so, but it's certainly directional, as
> a field test has proven.
>
> Questions and comments appreciated.
>
>
> Dr. Slick
>
> (not a real Doctor)

4009. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 18:37:28 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <40520368.483C@wt.net>
Source record: 98481

Art Unwin KB9MZ wrote:

life story clipped to save 300K server room...

Just one comment....Define coupling.

> Iwill start another thread which goes
> back to my first entrance on this group here possible some of the
> newer members will focus on the technical side by looking at the
> picture that I hold and not on the man holding it.

That shouldn't be too hard as long as you don't forget to wear your skivvies when the picture is taken.

> I will do this to
> lure you all from what you are now readying to do

I'm fixing to go to the bank. I doubt you will be able to lure me away from that mission.
Money talks, bull#%@ walks...

> and you can then determine if indeed I am a man ready for the rubber
> room because of insanity.

You will know when that moment arrives. You'll go to the store to buy donuts and fretzels and teenagers will come up to you and ask "Hey' Are you Howard Hughes?" "Man! them nine inch nails are the cats ass!" "Old man, you smell!" "Are you related to Billy Gibbons?" etc, etc ...

>To the initial poster, thanks but no thanks,
> you have a life to live, remove youself and enjoy the good life.

Will he get a free boat and motor with this limited one time offer? I know some people who can teach him how to barefoot ski. Some are world class experts in that field.

--
http://web.wt.net/~nm5k

4010. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 18:46:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405205a3$1_2@127.0.0.1>
Source record: 98482

Gene Fuller wrote:
> Those reward traveling waves do not merely cancel at some "match point".
> They cancel everywhere. In other words they do not exist.

That's impossible, Gene, since those two cancelled waves originate at opposite ends of the matched antenna system, one at the mismatched load, and one at the physical mismatch at the Z0-match point. Your explanation requires instantaneous action at a distance. Those two waves are coherent but they do not suffer from quantum entanglement.

Please feel free to try again. The question is: What reverses the direction and momentum of the energy reflected from a mismatched load? Saying that reflections from a mismatched load don't exist is simply denying reality. We know they must exist in order to cause standing waves which obviously exist. Your argument contains logical contradictions. To the best of my knowledge, mine doesn't.

> The model was set up to include these wave components, but the solution
> comes back to say that those components do not really have a non-zero
> amplitude. No harm done; this sort of thing happens all the time in the
> solution of science and engineering problems.

Again, you are talking about a net solution which is useless in determining what is happening in real time at the component wave level. If net solutions are all you have to offer, you have nothing to offer for this component discussion.

> Try hauling your ox back out of the ditch. There's a whole world out there.

Dripping water wears away a stone, even brains made of stone. I intend to keep this up until someone proves me wrong with a method besides handwaving, lip flapping, and allusions to magic like your quantum entangled waves above.
--
73, Cecil, W5DXP

4011. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 18:51:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ch0450lug6s4u0aohn0qfrpmodq6k5rajn@4ax.com>
Source record: 98483

On Fri, 12 Mar 2004 09:41:43 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Tomorrow I plan to
>be in Austin. That statement says nothing about how I plan to
>get there.

This is the sort of consistently gratuitous discussion that renders
the entire topic without merit.

>>>Here's a quote from Steve's article
>>
>> Ah, the great satan having been invoked. How'd I peg that so square
>> on the head?
>
>Does Steve know that you equate him to "the great satan"?

This time a gratuitous question.

>>>I agree with that statement. But when I ask what happens to the energy
>>>in those two cancelled waves, all I get is silence.
>>
>> That's all it merits,
>
>Why? It's an honest question.

You would have an entertaining time proving it everyone, but that
wouldn't mean they were convinced (or entertained, except in the sense
of morbid fascination). Again, it has no merit.

>>>So Richard, what
>>>happens to the energy in those two cancelled waves? Destroyed? Bleeds
>>>off to a parallel universe? Routed through a black hole for constructive
>>>interference in the opposite direction? The answer is more than obvious.
>>
>> From those three alternatives drawn from a hat? Three card monte is a
>> more honest game.
>
>Those are only three ridiculous possibilities.

And hence gratuitous, I pegged another one square on the head.

>> And here you told us that maxwell's equations were clueless, answers
>> that described nothing and no help at all
>
>Maxwell's equations work to obtain the answer as does quantum
>electrodynamics.

And yet you have never shown a lick of work in that regard, so we must take it on faith? Like I said, all that is missing is your sagging claims of truth, justice and the american way to bolster this supposed knowledge. How many joules in a square cm of sunlight? Such a question will only find specious qualifications and metaphysical implications from you in response - but then, it is only entertainment, cheaper than video on demand and not injurious to the mental couch potato.

However, that entertainment value has been drained, we will pause for your public service announcement:

4012. Re: 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 18:55:40 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <MIn4c.90637$eL2.4825984@twister.southeast.rr.com>
Source record: 98484

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0403120845.cca6903@posting.google.com...
> A question was asked about what use was 'Q'
> To me Q showed its value with the introduction of the National Radio
> HRO
> a receiver with 2 RF stages and 3 IF stages. This receiver as
> excellent receiver because it recognised that the mixture of
> frequencies produced not only a desired frequency but also many other
> undesired frequencies and while we used to use spark gap tranmissions
> that were extremely wide the introduction of higher density spectrum
> use produced a zillion frequency mixtures which are of no use.
> The HRO by decreasing the spectrum received to exclude errant
> frequencies increased the Quality (Q) of signal reception by
> expanding the difference in signal level received compared to the
> level of errant frequecies received (noise). This difference can be
> analogous to the gain of an antenna
> where noise introduced into a receiver must be overcome by the
> required signal gain or there is no communication. The HRO did this by
> its then unheard of
> 3 I.F. stages which provided a low noise floor. So Q does have a use
> as it is inextricably bound to the Quality of communications and
> everything that goes with it, it cannot be ignored.
>
> More to come, let the attack begin.
>
> Art
Q is a numerical representation of how well a "real world tuned circuit"
compares with a therorectically perfect tuned circuit. The theroretical
circuit having no losses due to resistance or radiation.

4013. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 19:07:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ga245091ib0m4ojf0gd5surjjjcjr6o614@4ax.com>
Source record: 98485

On Fri, 12 Mar 2004 12:46:03 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Your argument contains logical contradictions.

Because his sources acknowledge and perform to the teachings of
Einstein and the workers in the fields of Quantum physics which allow
such contradictions.

>To the best of my knowledge, mine doesn't.

Still stuck in the antediluvian, Newtonian universe.

4014. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 19:08:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40520ae1_2@127.0.0.1>
Source record: 98486

Richard Harrison wrote:
> Which is cause and which is effect? Often what is cause and what is
> effect can be interchanged. Volts across a resistor produce a current.
> Current in a resistor produces a voltage drop. Take your pick of cause
> or effect.

A resistor's resistance *causes* a certain V/I ratio. If there exists a V/I ratio and no resistor, then the V/I ratio is the *cause* of the resistance (or impedance). In other words, a resistorless resistance cannot be the cause of anything. It is always an effect, often from interference, and is usually lossless. Note that anything that suffers from I^2*R dissipation is a resistor by this definition. That includes a piece of copper wire.

> A reflection may be caused by a phase reversal between voltage and
> current.

We are past discussing reflections. The present argument is: Given two coherent waves traveling in the same path with the same magnitude and opposite phases, wave cancellation results from destructive interference.

The laws of physics tells us that energy cannot be destroyed and if destructive interference exists, an equal magnitude of constructive interference is required to exist. The destructive interference in a Z0-matched system is toward the source. The constructive interference in a Z0-matched system is toward the load. The energy components involved in those two types of interference are traveling in opposite directions.

The conclusion is obvious. The reflected energy involved in the wave cancellation process heads back toward the load just as explained on the Melles-Griot web page. That there is such a large well-organized good old boy conspiracy trying to hide these simple facts of physics speaks volumes about the sad state of amateur radio.

http://www.mellesgriot.com/products/optics/oc_2_1.htm
--
73, Cecil, W5DXP

4015. Re: FS: MOTOROLA VHF SPECTRUM ANTENNA

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 19:20:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40520dad_2@127.0.0.1>
Source record: 98487

Just a reminder: The netnews guidelines for this newsgroup
discourage postings involving buying, selling, and trading.

rec.radio.swap

is the appropriate newsgroup was created for the purpose of
buying, selling, and trading radio equipment.

http://www.faqs.org/faqs/radio/personal-intro/
--
thanks & &3, Cecil, W5DXP

4016. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 19:28:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40520fa2_2@127.0.0.1>
Source record: 98488

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Your argument contains logical contradictions.
>
> Because his sources acknowledge and perform to the teachings of
> Einstein and the workers in the fields of Quantum physics which allow
> such contradictions.

Well, I guess that settles that. A thing is not what it is.
Why didn't I think of simply denying reality? I think I get
it now. When you lose an argument using a certain math model,
declare that math model to be null and void.
--
73, Cecil, W5DXP

4017. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 19:34:37 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <861xnxkgfm.fsf@duchess.twilley.org>
Source record: 98489

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Richard" == Richard Clark <kb7qhc@comcast.net> writes:

[...]

Richard> Hi Jack,

Richard> You need a rig with a good, calibrated readout. I should use
Richard> the word "calibrated" with care. Actually it needs
Richard> resolution and stability so that it can make comparisons.
Richard> Using a step attenuator and its reading to achieve the same
Richard> indication is the best method.

None of those things are finding themselves in my junk box at the
moment. In fact, I strongly suspect my HF rig needs to be calibrated
and tuned, and I'm slowly gathering the tools required to do that.
Until then, I've got to work with what I have.

Richard> You still need someone else to compare against. Coming in
Richard> loud and clear might easily (or poorly) be accomplished
Richard> driving a leaky dummy load. A friend of mine once QSO'd her
Richard> girl friend in AK all while on her dummy load (20M).

Alas, the sunspots are no longer with us, it seems.

Richard> 73's Richard Clark, KB7QHC

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAUhDRGPFSfAB/ezgRApgGAJkBBiWnS3v6Xn1g89sX0OpMs9OaEQCfU12A
zjIpKvIXKBCZkC8kZxzD8A4=
=SxRy
-----END PGP SIGNATURE-----
```

4018. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 20:04:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <on2450to4v4t4mnui260a5ten852e2hl0m@4ax.com>
Source record: 98490

On Sun, 7 Mar 2004 21:18:46 -0600 (CST), richardharrison@webtv.net (Richard Harrison) wrote:

>Jimmy wrote:
>"The last description I saw of a quarter wave antenna was that of a >parallel circuit. Isn`t that basically how a capacity hat shortens an >antenna, by increasing the parallel capacitance?"
>
>Parallel or series hardly makes any difference.

Part of this debate has ignored that all resonant circuits can be analyzed as both parallel and series. That is, barring your and my observations.

To force the parallel resonant observation upon the quarterwave vertical, all that need be done is to move the drive from the base to the tip. The same current distribution will be observed, the same radiation characteristic will persist, and as such nothing has really changed.

This may raise hosannas from Art in that he has been redeemed by this move - but at a cost. Moving that drive to that point necessarily brings a lead that is a quarterwave long to accomplish this mission. We then find ourselves in a situation where the solution has become part of the problem. Do we really have a drive at the top, or another radiator? Art, I am sure, would dismiss this necessary lead as "not part of the antenna" and would close the books before the audit is complete. It would be in fact the classic folded dipole. To escape that and maintain the mystery of driving from the top, we would have to accept unipolar RF sources (soon to be patented).

However, if we were to return to Jimmy's question/observation of the top hat; that structure resides at the point we speculatively drove (the distal tip), and with respect to its own contribution looking back towards ground, it sees an entirely different circuit topology than does the drive at the base. This is not exactly the same situation as moving the drive. The top hat does not grace a full quarterwave vertical as it would be redundant to that mission. Such an addition would end up instead throwing the design into a quasi 3/8ths tuning, or such, to dubious purpose. Thus the analysis becomes murky (for further debate suitable to efficiency per unit length). We can shorten the quarterwave by small intervals and find the top hat appears to replace that missing length; but as we shorten, the system becomes capacitively reactive and we hardly need more.

One of the language problems with the name Capacity Top Hat, and the expectation of adding more capacitance is that the short antenna is already excessively capacitive. Logically, the addition of more capacity does not lead to resonance. The purpose of a top hat transcends notions of resonance to answer problems of radiation characteristics. Resonance, as always, is answered through other devices (inductors) that reside there to serve that same problem of radiation.

After 10 years of reading a spectrum of discussion, I have never, ever, read any post that purported a mission to build a 100pf top hat. I have never read anyone ask how big a hat was needed to resonate such-and-such inductance. The structure is often too big to qualify as a lumped capacitor and calling it by this name is a convention, not a reality.

73's
Richard Clark, KB7QHC

4019. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 20:55:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405223e8_4@corp.newsgroups.com>
Source record: 98491

Richard Clark wrote:
> One of the language problems with the name Capacity Top Hat, and the
> expectation of adding more capacitance is that the short antenna is
> already excessively capacitive. Logically, the addition of more
> capacity does not lead to resonance.

Yet, we can usually add enough top hat metal to bring the antenna
system to resonance. Must be your uncertainty principle at work. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4020. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 21:09:33 UTC
From: richardharrison@webtv.net
Message-ID: <13188-4052270D-477@storefull-3255.bay.webtv.net>
Source record: 98494

Cecil, W5DXP wrote:
"Given two coherent waves traveling in the same path with the same magnitude and opposite phases, wave cancellation results from destructive interference."

The waves don`t cancel out. Anything in their path just receives equal and opposite influences and the effect of the waves is nil.
Sound cancellers which generate equal and opposite waves are an example. Either the sound or antisound sources alone might be deafening, but taken together, there is relative quiet.

Best regards, Richard Harrison, KB5WZI

4021. Re: 2.4 GHz waveguide/horn antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 21:11:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nl8450heuad5nnka8kn49utr3b0jdce5ia@4ax.com>
Source record: 98492

On Tue, 09 Mar 2004 10:40:10 +0100, Jeppe <no@spam.com> wrote:
>0.5 wavelenght seems like a intuitively reasonable choice for the
>smaller dimension of cross section of the throat / waveguide part. If
>the tip of the probe (=1/4 wavelenght antenne rod?) is very close to
>the opposite wall it is hard to imagine that it would not affect the
>function and the SWR (which, unfortunately, I lack equipment to
>measure)
>
>But are you sure that 1 wavelenght is the optimum value for the other
>dimension of the cross section? That is more than in the examples I
>have seen on the net.
>
>Is there some reason for choosing a 2 : 1 ratio of the two dimensions?
>
>I may add that in the first horn I made, the dimensions were 0.36 x
>0.72 wave. It worked, but probably not quite optimallly (I lack real
>measuring equipment.) I then tried to put the antenne rod
>perpendicular to the SMALLER side instead, but that did not work at
>all (very weak signal).
>
>73
>
>Jeppe (former OZ3FV, hav'n't renewed my licence for about 30 years :-(

Hi Jeppe,

Sorry for the delay in response, this message of yours has arrived
only today - very late.

The 2:1 ratio follows from the basic ratio metrics of microwaves, but
are not absolute. Rather than go into a difficult description that
begs graphics, visit:
http://www.fnrf.science.cmu.ac.th/theory/waveguide/Waveguide%20theory%202.html

As to your question about the dimensions of 0.36 x 0.72 wave (you
will no doubt note the aspect ratio again). The answer to this is
that such components tend to work over an octave of frequency (another
2:1 ratio, pretty common that).

73's
Richard Clark, KB7QHC

4022. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 21:12:23 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <ns5450dcmtuhbts31fapmb9elgg2q20ce2@4ax.com>
Source record: 98493

On Fri, 12 Mar 2004 13:08:20 -0600, Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
wrote:

>We are past discussing reflections. The present argument is: Given two
>coherent waves traveling in the same path with the same magnitude and
>opposite phases, wave cancellation results from destructive interference.
>
>The laws of physics tells us that energy cannot be destroyed and if
>destructive interference exists, an equal magnitude of constructive
>interference is required to exist. The destructive interference in
>a Z0-matched system is toward the source. The constructive interference
>in a Z0-matched system is toward the load. The energy components involved
>in those two types of interference are traveling in opposite directions.
>
>The conclusion is obvious. The reflected energy involved in the wave
>cancellation process heads back toward the load just as explained on
>the Melles-Griot web page. That there is such a large well-organized
>good old boy conspiracy trying to hide these simple facts of physics
>speaks volumes about the sad state of amateur radio.
>
>http://www.mellesgriot.com/products/optics/oc_2_1.htm

It constantly amazes me that the majority of you guys on this thread just can't seem to get (understand) the truth that Cecil's been trying to get through to you. Where does the power in the cancelled reflected waves go? Conservation of energy dictates that it is totally re-reflected when a complete impedance match has been achieved. You want the wave mechanism that accomplishes this feat? I'll get to that shortly.

In Steve Best's latest QEX article, Part 3, bottom of Page 43, beginning with the section titled, "The Total Reflection Fallacy" and continuing ONLY on the left column of Page 44, Steve tells it like it is, correctly. Then why does he call it a Fallacy? Please be patient and I'll tell you why.

Steve' correct explanation of the matching process in that single column was taken directly from my writings in ARRL journals. Paraphrased, yes, but correctly so.

My first publication of this issue appeared in QST, October 1973, entitled, "A View Into the Conjugate Mirror." This article appears in both Eds 1 and 2 of Reflections as Chapter 4, Steve also copied from another of my articles, this one in QEX,, Mar/Apr 1998, entitled "Examining the Mechanics of Wave Interference in Impedance Matching," which also appears in Reflections 2 as Chapter 23.

Steve and I have been in contentious controversy on this subject for several years. He continued this controversy by publishing this totally erroneous material in QEX,, erroneous except for the portion in the single column where he presented my material correctly. The remaining portion of his article is simply an unsuccessful attempt to show that my position is incorrect, and therefore calls it a 'fallacy'.

In fact, however, the entire portion following the correct portion he copied from me is where the REAL fallacy lies--it proves that he knows very little about the subject of his title, "Wave Mechanics of Transmission Lnes." It also shows he doesn't have a clue concerning the superposition of two rearward traveling waves that are conjugately related at the matching point. In fact, the two waves cancel each other, and establish either a one-way open circuit or a one-way short circuit that totally re-reflects the reflected power, with its voltage and current components traveling in the same phase as t;hose from the source, and therefore adding to the source power.

I know that many on this thread believe that no open or short circuit can be established by the superposition of waves. It is true that forward and reflected waves, traveling in OPPOSITE directions establish only the standing wave--no open or short circuits. But it's a different ball game when two waves traveling in the SAME direction are conjugately related. The waves are conjugately related because the canceling wave generated by the matching device is tailored to have the same magnitude but opposite phase as the wave reflected from the mismatched load on the transmission line.

Here's why a short or open circuit is established when conjugately related waves join at a matching point. From an analytic viewpoint the voltage appearing at any point on the line can be replaced with a generator delivering the same voltage at the same phase that appears at that point. This generator is called a 'point' generator that delivers an impedance-less EMF. Now consider one generator delivering the voltage appearing in the wave reflected at the mismatched load and a second generator delivering the voltage from the canceling wave reflected by a matching stub, or whatever the matching device, at the same point on the line as the first. The voltage from this second generator has the same magnitude, but opposite phase from that of the first generator. When the voltages delivered by the t wo generators are 180 degrees out of phase we have a short circuit--if they're in phase we have an open circuit. As the result, in either of these two conditions no reflected wave can pass rearward of the matching point.

From the simple fact that the impedance at the input of an antenna tuner is 50+ j0 we know that no reflected power is traveling rearward further than the tuner input. Where did the power in the reflected wave go? That energy cannot disappear as if by some sort of magic--it is totally re-reflected by the open or short circuit, and adds to the source power to establish a forward power equal to the sum of the source and reflected power.

I hope this helps to end the confusion, and also gives Cecil what he deserves for his attempt to give you guys the straight dope.

Walt, W2DU

4023. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 21:19:21 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86smgdix0m.fsf@duchess.twilley.org>
Source record: 98495

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Doc" == w5lz <w5lz@cwis.net> writes:

Doc> Jack, As stated, the only answer anyone can make to your
Doc> questions is, [2] I don't know. SWR meters and antenna analyzers
Doc> are nice, and handy, things to have around, but they require a
Doc> little thought in their use. They aren't the "be all, end all"
Doc> of antenna instruments by themselves. Probably the most 'handy'
Doc> measuring device for dealing with antennas is the yardstick (or
Doc> meter stick for those that would rather). Antenna analyzers are
Doc> probably the most 'handy' gadget for finding out band/frequency
Doc> an antenna is made for that I've seen in years. But, and there
Doc> are several 'buts' that have to be taken into consideration when
Doc> using one.

I knew it wouldn't be as easy as "plug it in and turn it on", but the
details are a little hard to find and a little harder for me to
understand. Thanks for explaining.

Doc> If you connect an analyzer to the feed line of your antenna you
Doc> are measuring where the whole 'system' (feed line and antenna)
Doc> are 'resonant', not just the antenna. The feed line 'modifies'
Doc> what the analyzer 'sees' of the antenna, changing the answer to,
Doc> "What is the resonant frequency, and the input impedance?".

I knew this much, which is why I mentioned "antenna/feedline" in my
original post.

Doc> To make the antenna 'right', you have to get rid of the feed
Doc> line. OR, make it 'disappear' electrically. You can do that by
Doc> making the feed line an electrical 1/2 wave length at whatever
Doc> frequency your antenna is supposed to work at (or multiples of an
Doc> electrical 1/2 wave length if one isn't long enough to reach from
Doc> the antenna to where you are doing the measuring). The analyzer
Doc> readings then are for the antenna only since an electrical 1/2
Doc> wave length of feed line is 'invisible' to the analyzer. (Takes
Doc> a different feed line length for each band.)

This isn't as bad as I thought on first read. The bands I want to
reach with this antenna are 80, 40, 20, 15, and 10. Four of those
five bands collapse into a single case, and the fifth one will
collapse as well due to the odd harmonic thing with 40 and 15, right?
This means a single feedline of 40m should work for all five bands.
My station isn't 40m from my antenna feedpoint, though, so I'll have

to make coils of feedline -- some at the feedpoint, and some at the
station -- will that cause problems?

[... Doc's thoughts on efficiency ...]

Yes, I've got to work with what (little) I've got, true enough.

Doc> Use that yardstick to measure the length of your multiband
Doc> antenna's elements. That will give you a rough idea where they
Doc> 'should' be resonant (barring any loading coils, that makes it a
Doc> little more difficult). Plugging those lengths into the 'magic'
Doc> formula, F = 234 / length(feet), will give you a 'ball park' idea
Doc> of frequency for 1/4 wave lengths (one half of each antenna).
Doc> Then it's just a matter of 'tweaking' the lengths for each band.
Doc> That doesn't do anything about input impedance, just resonance.
Doc> To match the input impedance is a separate thing, and there are
Doc> several methods of doing that. When both length and impedance
Doc> matching are done, you will have the most 'efficiency' for the
Doc> antenna in ~that~ particular configuration. It may not be
Doc> exactly what you want, but that's more a result of how/where the
Doc> antenna is mounted. Anything and everything can change the
Doc> usefulness of an antenna, which is due to the radiation pattern,
Doc> which is/can be affected by how/where/when the antenna is put up
Doc> (at night, in a snow storm, at the North Pole is the best
Doc> 'when'). Having used 10 words where 2 may have been more
Doc> 'efficient', I'll shut up... 'Doc

I can see a long weekend in my future. Plug in a noise bridge, check
the resonance, lower the antenna, change its length, raise the
antenna, repeat. Since it's a multiband fan dipole, I'll have to tune
each leg for its own band, right?

Doc> PS - A mobile antenna is usually only around 3 - 20% efficient
Doc> compared to a 'properly' set up fixed antenna. They still work
Doc> okay.

Doc, some days I want to take down all the copper in the yard, buy
myself a mobile antenna, and stick it on a big piece of sheet steel.

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAUildGPFSfAB/ezgRAkdRAJ9nUXxIYaTZPXLky77nBcQplEvJuwCgqzG/
dGmB4OykpCLH73FOO8XejkQ=
=7WL2
-----END PGP SIGNATURE-----

4024. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 21:23:41 UTC
From: jder8745@aol.com
Message-ID: <20040312162341.22662.00001425@mb-m10.aol.com>
Source record: 98497

"All for sake of oil."

==========

Oil is good. Use it or lose it.

Jack K9CUN

4025. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 21:23:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d7a450htdjibajg7hatll1e1p2tf49mtbf@4ax.com>
Source record: 98496

On Fri, 12 Mar 2004 13:28:37 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>When you lose an argument using a certain math model,
>declare that math model to be null and void.

You were expecting chopped liver?

4026. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 21:31:29 UTC
From: richardharrison@webtv.net
Message-ID: <13188-40522C31-479@storefull-3255.bay.webtv.net>
Source record: 98498

Richard Clark wrote:
"One of the language problems with the name Capacity Top Hat, and the expectation of adding more capacitance is that the short antenna is already excessively capacitive."

Yes, but that is an incomplete description. The short antenna has an excess of capacitive REACTANCE. It can be tuned to resonance by increasing the capacitance between its ends.

Best regards, Richard Harrison, KB5WZI

4027. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 22:09:57 UTC
From: Jim Hampton <aa2qa@frontiernet.net>
Message-ID: <Uyq4c.2526$vP3.975@news02.roc.ny>
Source record: 98499
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

Regardless of your ignorance, it is the amateurs that are pointing out the potential problems of BPL. If nothing else, this speaks volumes about the need for reasonable tests for potential amateurs (not something that you can walk into a test and walk away with an 'extra' class license). The code/no code arguement, in my opinion, is moot; what is more to the point is what these amateurs can and *do* contribute, regardless of the rants of many folks who may be envious of the frequencies available to amateurs.

I worked in EMC compliance. We had a problem with interference from powerlines. Yes, it is possible to reduce the problem. Whilst it won't qualify as a test to pass a particular piece of hardware, it is *great* for determining sources of RFI. Someone has a problem with RF interference to home equipment (not necessarily amateur). How do you solve it? I've helped in both cases. Some folks have minds so closed that they can't see the forest for the trees (or vice-versa).

I remember finishing my active duty with the U.S. Navy. I suspect it was verteran's day as there had been a parade and I was in a bar later on. A few guys in Navy uniforms had a problem. I overheard the conversation. Their transmitter had low output and couldn't tune. I went over to them and asked to see the transmitter. Sure enough, a bad cap in the tank circuit. We repaired it on the spot (dang if I didn't get hornswaggled into joining the reserves LOL).

When folks like you ask "did you repair that pothole in interstate 90 between ....", you are missing the point. It is the knowlege and theory that can enable hams to assist in many situations. Although I had engaged in emergency communications on Guam Island (and it was many years ago) and an SOS on 500 KHz at sea (also many years ago), you assume that I am obsolete. I would suggest that bad capacitors still happen and the folks with some technical background still can help. Although that situation with the U.S. Naval Reserve was many years ago, I've also repaired much more modern transceivers in the past decade. I am also quite capable of reducing interference between devices today. You dwell on the past; the technically astute needn't.

BTW, BPL is *not* going to serve the "underserved". I won't explain it. You take the time and effort (*if* you have the perseverence - which I doubt - and research it).

73 from Rochester, NY
Jim AA2QA

"Barry OGrady" <god_freee_jones@hotmail.com> wrote in message news:2cgv40plruna52lu189bfk0vgaij0lt0t0@4ax.com...

> On Wed, 10 Mar 2004 05:46:09 GMT, Zoran Brlecic <...WA7AA...@get.lost>
wrote:
>
>
> What needs to be weighed up is the cost/benefit ratio.
> If BPL can benefit a huge number of people while inconveniencing a few
amateurs
> then it is justified. Remember that amateur radio is a hobby that
unjustifiably occupies
> valuable radio spectrum.
>
> >--
>
>
> -Barry
> ========
> Web page: http://members.optusnet.com.au/~barry.og
> Atheist, radio scanner, LIPD information.

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.615 / Virus Database: 394 - Release Date: 3/8/04

4028. a simple FM antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 22:09:57 UTC
From: Boner the Cat <boner33@tampabay.rr.com>
Message-ID: <Vyq4c.245292$Po1.146135@twister.tampabay.rr.com>
Source record: 98500

well this will tell you just how amateur I am!!!!! less then bugger all.

what can I use to add an exterior antenna to help with FM reception??

thks
bg

--
"Poor people have access to the courts in the same sense that Christians had
access to the lions."

- Judge Earl Johnson Jr.

4029. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 22:30:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40523a3d$1_1@corp.newsgroups.com>
Source record: 98502

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "Given two coherent waves traveling in the same path with the same
> magnitude and opposite phases, wave cancellation results from
> destructive interference."
>
> The waves don`t cancel out. Anything in their path just receives equal
> and opposite influences and the effect of the waves is nil.

I assume you are not asserting that canceled waves' effects become
nil, i.e. undetectable, until the end of time yet they still possess
the same amount of energy as always except now that energy is completely
undetectable for the rest of the life of the universe. Consider the
ramifications of what you are asserting.

Seems to me, canceled waves must *cease to exist* at a point in space-time
if they exhibit zero measurable evidence of their existence forever after
(plus exactly that same amount of energy is required by the system in the
opposite direction).

Incidentally, that was Dr. Best's argument. The energy in the canceled
waves continues to propagate forever in the opposite direction of the
load. Never mind, that exact same amount of energy is required for constructive
interference in the opposite direction and cannot just be created out
of nothing. That's when he left the newsgroup.

For constructive interference to exist, energy from destructive interference
MUST be supplied from somewhere real, according to Hecht in _Optics_.
The conservation of energy principle agrees with Hecht as it
did during the spring of '01 when the arguments were raging between
Dr. Best and me. There is still not enough energy only in P1 and P2 to
make P1 + P2 + 2*(P1*P2) equal to the forward power. The 2*(P1*P2) is
known in the field of optics as the "interference term" and obviously
is supplied from destructive interference between two reflected waves.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4030. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 22:31:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40523a92$1_1@corp.newsgroups.com>
Source record: 98503

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>When you lose an argument using a certain math model,
>>declare that math model to be null and void.
>
> You were expecting chopped liver?

No, I was expecting a modicum of rationality - silly me.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4031. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-12 23:21:41 UTC
From: Joseph Fenn <jfenn@lava.net>
Message-ID: <c2tgm5$c7m$1@xuxa.iecc.com>
Source record: 98504
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Gerry and others,
Yes I have went thru 2 of those dam things already. A big white one
with normal minute and hour hands which I threw away after a few weeks
of trying to make it behafe. Then got the more or less square shaped
one with wooden panels on eachside of the clock face. Shows
day date weekday (seconds or indoor temp) Outdoor temp. Has an ICON
top center thats supposed to show up black if WWV is being heard.
Mine rarely does unless take it upstairs and point it north/south.
Then the icon (wwv) shows very dimly. Mine is supposed to access
the WWV sig during hours from midnight to 6am only. But still the
ICON rarely shows up. I hear the people who sell them are very
helpful and will even replace your clock if you cant resolve the
problems. Their ph nr is 1 (800) 972-0292 and ask for Shelly.
Kokomo Joe (in Hawaii)

****
* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
****

On Thu, 12 Mar 2004, Gerry Wheeler KG4NBB wrote:

> On Tue, 09 Mar 2004 16:46:54 +0000, Dennis wrote:
>
> > In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
> >
> > Yes, I have one of these clocks also. The thing is, these clocks are set
> > 6 times in a 24hr perod by the WWVB signal. The rest of the time the
> > time base is an ordinary crystal.
>
> Mine is set only once per day, sometime between midnight and 4 am.
>
> I was under the impression that the reason this was done is that the
> signal is too weak to be decoded during other times of the day. In fact, I
> have some (admittedly very inexpensive) atomic clocks that have *never*
> decoded the signal here in Florida.
> --
> Gerry Wheeler KG4NBB
> Naples, FL
> N26.28 W081.76
>
>

4032. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 01:00:17 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <B2t4c.1779$nE4.600778844@newssvr11.news.prodigy.com>
Source record: 98505

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:idn250duts511m434iscel4t22ncn83201@4ax.com...
> On Fri, 12 Mar 2004 05:39:13 GMT, " Stephen Cowell"
> <scowell@sbcglobal.net> wrote:
>
> >
> >"Richard Clark" <kb7qhc@comcast.net> wrote in message
> >news:0knu40losrtkgrhbfng4funhk2rr2468ls@4ax.com...
> >...
> >> 'Sir, you are irascible,' said Boswell;
> >> 'you have no patience with folly or absurdity.'"
> >
> >Was that before, or after, he poked Rousseau's wife?
> >__
> >Steve
> >KI5YG
>
> Hi Steve,
>
> There's couple things wrong with that, Who are you referring to and
> in what context? Boswell, or Johnson, and certainly not discussed in
> "The Life of Johnson" as Boswell was the more, um, adventurous and
> more so stated in his "London Journal."

Of course, Boswell... he ran with the Rousseaus, as well
as everyone else. Hump anything on two legs.

--
Steve
KI5YG
.

4033. Re: a simple FM antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 01:10:39 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <47SdnYFw9P0bws_dRVn-gg@comcast.com>
Source record: 98506

This may sound stupid, but does the radio have an antenna connector on the back? what kind?

Tam/WB2TT
"Boner the Cat" <boner33(n-spam)@tampabay.rr.com> wrote in message news:Vyq4c.245292$Po1.146135@twister.tampabay.rr.com...
> well this will tell you just how amateur I am!!!!! less then bugger all.
>
> what can I use to add an exterior antenna to help with FM reception??
>
> thks
> bg
>
>
> --
> "Poor people have access to the courts in the same sense that Christians had
> access to the lions."
>
> - Judge Earl Johnson Jr.
>
>
>
>

4034. VHF Broadband balun 4 to 1 ratio..(50 and 144 mhz)..maybe even up to 440? how to build one?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 01:14:24 UTC
From: ve3ab@mail.mondenet.com
Message-ID: <40525e79.2208299@news.mondenet.com>
Source record: 98501

Id like to build a 4 to 1 balun..50 mhz through 2mtrs (and above if possible). I have ferrite cores..type 61 and 37 material. Does anyone know how to build a low loss 4 to 1 VHF balun.?
I was thinking of taking 2..nr 37 big sleeve beads and making a binocular type of core and winding a broadband xformer..and wind the coax into a choke ahead of it. Question..is nr 37 ferrite lossy at vhf?

How about a homebrew plexiglass torroid..permeabilty approx 1 and using a bifilar winding.
I have a Radio Shack VHF log periodic antenna..and an mfj hf and vhf antenna analyser. Id like to use it on six, 2 and for fm band listening.
I realize I could use a commercial tv balun..but im sure..they are probably very low power ;and I suspect a bit lossy.
Any tips before I start winding ..trial and error.
73 Earl VE3AB

4035. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 01:39:39 UTC
From: richardharrison@webtv.net
Message-ID: <29111-4052665B-459@storefull-3257.bay.webtv.net>
Source record: 98507

Cecil, W5DXP wrote:
"Seems to me, canceled waves must "cease to exist" at a point in space time if they exhibit zero measurable evidence of their existence forever after---."

A union of two waves can make them both disappear if they are exact opposites, but elimination of just one of the two produces the the other. Were the two waves actually annhilated by their coexistence on the path together, they would not be exhibitable on demand by turning-off one or the other constituent.

Best regards, Richard Harrison, KB5WZI

4036. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 03:04:27 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40527c63_3@news1.prserv.net>
Source record: 98508

OK, one alternative is to use a known accurate (1dB) step attenuator in the receive line to get the relative numbers. Always go for the same strength indication on the receiver. Start at the azimuth with lowest indication, and add attenuation as it rotates.

--
Crazy George
Remove N O and S P A M imbedded in return address

4037. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 03:50:23 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0403121950.23909988@posting.google.com>
Source record: 98509
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

>
> BTW, BPL is *not* going to serve the "underserved". I won't explain it.
> You take the time and effort (*if* you have the perseverence - which I
> doubt - and research it).

Whack! right on James. As if any of today's grid gloms are some kinda
dreamy nitwits who are gonna take Internet access into the boonies
like the TVA did with volts and amps.

Bwaaaahaha! Never in this world . . !

>
>
> 73 from Rochester, NY
> Jim AA2QA
>
> "Barry OGrady" <god_freee_jones@hotmail.com> wrote in message
> news:2cgv40plruna52lu189bfk0vgaij0lt0t0@4ax.com...
> > On Wed, 10 Mar 2004 05:46:09 GMT, Zoran Brlecic <...WA7AA...@get.lost>
> wrote:
> >
> >
> > What needs to be weighed up is the cost/benefit ratio.
> > If BPL can benefit a huge number of people while inconveniencing a few
> amateurs
> > then it is justified. Remember that amateur radio is a hobby that
> unjustifiably occupies
> > valuable radio spectrum.
> >
> > >--
> >
> >
> > -Barry
> > ========
> > Web page: http://members.optusnet.com.au/~barry.og
> > Atheist, radio scanner, LIPD information.
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.615 / Virus Database: 394 - Release Date: 3/8/04

4038. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 04:41:50 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4052910E.63C93D87@cwis.net>
Source record: 98510

Cecil,
Only if it's got one of them 'Wizz-Band, super-dupper, all weather, triple-by-pass, monster coils' in it! Ain't that right?
But then again, any 'full sized' 1/4 wave antenna is more efficient than the 'usual' loaded mobile antenna for bands lower than about 15 meters. That's also 'right', is it not?
'Doc

4039. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 05:03:26 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40529653_4@corp.newsgroups.com>
Source record: 98512

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "Seems to me, canceled waves must "cease to exist" at a point in space
> time if they exhibit zero measurable evidence of their existence forever
> after---."
>
> A union of two waves can make them both disappear if they are exact
> opposites, but elimination of just one of the two produces the the
> other. Were the two waves actually annhilated by their coexistence on
> the path together, they would not be exhibitable on demand by
> turning-off one or the other constituent.

Of course they would, Richard, since the destructive interference ceases when one of them is turned off. What happens while the two waves are engaging in total destructive interference is that their combined energy components flow in the opposite direction as a constructive interference wave. That's why Melles-Griot says the rearward flowing "lost" energy involved in the destructive interference is not lost at all and instead joins the forward wave traveling in the opposite direction. That's why the rearward-flowing reflected wave energy all winds up flowing toward the load in a Z0-matched system.

Let's say I am a light year away from two interfering waves at your location. I am measuring zero energy. You switch off one of the signals. How long does it take for me to sense any energy? - a year because the energy pipeline is empty before you switch off one of the signals. There's no energy flowing toward me while both signals are on.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4040. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 05:04:07 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40529647.D97760E9@cwis.net>
Source record: 98511

Jack,
Yep, lots of fun with the up/down/up/down thing, but that's
just the normal part of tuning almost any antenna I can think
of, off hand. For a multiband antenna, multiply all that up
and down stuff for each band (probably). And since each 'part'
of the antenna will affect the other 'parts', repeating the
whole mess is something to count on till all of them are
'right'.
One way of changing the input impedance of a dipole is to
change the 'angle of the dangle' of each 'element'. Making the
angle between the legs of a dipole smaller reduces the input
impedance. So playing with the 'dangle angle' of each part of
the multiband antenna can be one of the simpler ways of doing
the impedance matching. Something to remember is that the
input impedance for all bands will probably never be 'perfect'.
Settling for the 'best' you can get is probably what the
majority
of people do, and just don't worry about it too much. While
looking for the 'best' you can get is the idea, working for
'perfection' is usually a wasted effort.
The thing about using an electrical 1/2 wave feed line is
mostly
for tuning purposes. Once the antenna is tuned correctly the
length
of feed line (coax type) isn't very important, since it isn't
being
used to do any of the impedance matching (right?).
I don't remember what else you mentioned in your post. It's
late,
I just got off work...
'Doc

4041. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 05:09:31 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405297c0$1_4@corp.newsgroups.com>
Source record: 98514

'Doc wrote:

Hope you didn't miss my smiley face. I just couldn't resist
pointing out that a RS CB whip is more efficient than the
numbers you quoted. :-)

> Only if it's got one of them 'Wizz-Band, super-dupper,
> all weather, triple-by-pass, monster coils' in it! Ain't
> that right?

you said:
> A mobile antenna is usually only around 3 - 20% efficient

I don't see any mention of a coil. :-)

> But then again, any 'full sized' 1/4 wave antenna is
> more efficient than the 'usual' loaded mobile antenna for
> bands lower than about 15 meters. That's also 'right', is
> it not?

you said:
> A mobile antenna is usually only around 3 - 20% efficient

I don't see any mention of size or frequency. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4042. Re: VHF Broadband balun 4 to 1 ratio..(50 and 144 mhz)..maybe even up to 440? how to build one?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 05:09:35 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <jlw4c.98756$6K.81078@nwrddc02.gnilink.net>
Source record: 98513

Earl

If you'd be satisfied with a bit of description from an old ARRL handbook,
I'll scan the info for you. See page 16-8 1990 ARRL Handbook.

Jerry

<ve3ab@mail.mondenet.com> wrote in message
news:40525e79.2208299@news.mondenet.com...
> Id like to build a 4 to 1 balun..50 mhz through 2mtrs (and above if
> possible). I have ferrite cores..type 61 and 37 material. Does anyone
> know how to build a low loss 4 to 1 VHF balun.?
> I was thinking of taking 2..nr 37 big sleeve beads and making a
> binocular type of core and winding a broadband xformer..and wind the
> coax into a choke ahead of it. Question..is nr 37 ferrite lossy at
> vhf?
>
> How about a homebrew plexiglass torroid..permeabilty approx 1 and
> using a bifilar winding.
> I have a Radio Shack VHF log periodic antenna..and an mfj hf and vhf
> antenna analyser. Id like to use it on six, 2 and for fm band
> listening.
> I realize I could use a commercial tv balun..but im sure..they are
> probably very low power ;and I suspect a bit lossy.
> Any tips before I start winding ..trial and error.
> 73 Earl VE3AB

4043. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 05:21:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40529a8e_4@corp.newsgroups.com>
Source record: 98515

'Doc wrote:
> Yep, lots of fun with the up/down/up/down thing, but that's
> just the normal part of tuning almost any antenna I can think
> of, off hand. For a multiband antenna, multiply all that up
> and down stuff for each band (probably). And since each 'part'
> of the antenna will affect the other 'parts', repeating the
> whole mess is something to count on till all of them are
> 'right'.

OTOH, I raised my all-HF-band dipole only once and achieved
a decent match on all HF bands without an antenna tuner.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4044. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 06:08:06 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403122208.6c8539fc@posting.google.com>
Source record: 98516
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:<tu-dncCPoLuXns_dRVn-gg@comcast.com>...
> If the second reflector is actually doing anything, which I doubt, you
> should be using a non metallic mast, and not bringing the coax down between
> the reflectors.
>
> Tam/WB2TT
>

Actually, if you believe the yagi optimizer program, the second
reflector is indeed not doing TOO much, but it does affect the back
shape of the pattern, and improves the impedance bit, and also
increases the dBd of the outer edge of the pattern by tiny bit too.

And i did simulate having the mast at 48 inches from the DE, which
i was advised was the distance where the mast would have the least
affect. Changing the mast length in the YO program does affect the
pattern shape though, so i tried to make the mast a non-resonant
length.

At any rate, we could probably survive without the second
reflector, you are most likely correct, but maybe for the next design.

It first, i considered having the "T" section of PVC pipe move
outwards at a 90 degree angle, and then attach another section of 2"
PVC that would be sticking out, so that the coax would be totally
perpendicular to all the elements. But, this would be a bit unwieldy.

Slick

4045. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 06:23:42 UTC
From: tommyknocker <tomynokr@uucp.hell>
Message-ID: <c2u9de$o9e$1@xuxa.iecc.com>
Source record: 98518
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Joseph Fenn wrote:

> Gerry and others,
> Yes I have went thru 2 of those dam things already. A big white one
> with normal minute and hour hands which I threw away after a few weeks
> of trying to make it behafe. Then got the more or less square shaped
> one with wooden panels on eachside of the clock face. Shows
> day date weekday (seconds or indoor temp) Outdoor temp. Has an ICON
> top center thats supposed to show up black if WWV is being heard.
> Mine rarely does unless take it upstairs and point it north/south.
> Then the icon (wwv) shows very dimly. Mine is supposed to access
> the WWV sig during hours from midnight to 6am only. But still the
> ICON rarely shows up. I hear the people who sell them are very
> helpful and will even replace your clock if you cant resolve the
> problems. Their ph nr is 1 (800) 972-0292 and ask for Shelly.
> Kokomo Joe (in Hawaii)

Forget about getting an atomic clock to set in Hawaii. The signal is
simply too weak. Atomic Time (who I bought my dual time clock from) says
that it helps if you point the antenna (apparently they just use ferrite
rod antennas-just like in a cheap transistor radio-to recieve) towards
Fort Collins, which is due east of my QTH.
>
>
> **********
> * Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
> **********
>
>
> On Thu, 12 Mar 2004, Gerry Wheeler KG4NBB wrote:
>
> > On Tue, 09 Mar 2004 16:46:54 +0000, Dennis wrote:
> >
> > > In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
> > >
> > > Yes, I have one of these clocks also. The thing is, these clocks are set
> > > 6 times in a 24hr perod by the WWVB signal. The rest of the time the
> > > time base is an ordinary crystal.
> >
> > Mine is set only once per day, sometime between midnight and 4 am.
> >
> > I was under the impression that the reason this was done is that the
> > signal is too weak to be decoded during other times of the day. In fact, I

> > have some (admittedly very inexpensive) atomic clocks that have *never*
> > decoded the signal here in Florida.

Yes, that's the impression I got too. Somewhere on the net I saw a
diagram of WWVB's coverage area-it covers all of North America at night
and just a little area of the Rockies during the day.

> > --
> > Gerry Wheeler KG4NBB
> > Naples, FL
> > N26.28 W081.76
> >
> >
>

4046. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 06:23:44 UTC
From: Dennis <Howdy.Doody@howdydoody.net>
Message-ID: <c2u9dg$oa0$1@xuxa.iecc.com>
Source record: 98517
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

In article <c2tgm5$c7m$1@xuxa.iecc.com>, jfenn@lava.net says...
>
>
>Gerry and others,
>Yes I have went thru 2 of those dam things already. A big white one
>with normal minute and hour hands which I threw away after a few weeks
>of trying to make it behafe. Then got the more or less square shaped
>one with wooden panels on eachside of the clock face. Shows
>day date weekday (seconds or indoor temp) Outdoor temp. Has an ICON
>top center thats supposed to show up black if WWV is being heard.
>Mine rarely does unless take it upstairs and point it north/south.
>Then the icon (wwv) shows very dimly. Mine is supposed to access
>the WWV sig during hours from midnight to 6am only. But still the
>ICON rarely shows up. I hear the people who sell them are very
>helpful and will even replace your clock if you cant resolve the
>problems. Their ph nr is 1 (800) 972-0292 and ask for Shelly.

Are you sure your not talking about wwvb, and not wwv. Or in
your case it would be wwvh.

Dennis
> Kokomo Joe (in Hawaii)
>
>
>**
>* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
>**
>
>
>On Thu, 12 Mar 2004, Gerry Wheeler KG4NBB wrote:
>
>> On Tue, 09 Mar 2004 16:46:54 +0000, Dennis wrote:
>>
>> > In article <c2jdpg$f9h$1@xuxa.iecc.com>, dragon40@shaw.ca says...
>> >
>> > Yes, I have one of these clocks also. The thing is, these clocks are set
>> > 6 times in a 24hr perod by the WWVB signal. The rest of the time the
>> > time base is an ordinary crystal.
>>
>> Mine is set only once per day, sometime between midnight and 4 am.
>>
>> I was under the impression that the reason this was done is that the
>> signal is too weak to be decoded during other times of the day. In fact, I

>> have some (admittedly very inexpensive) atomic clocks that have *never*
>> decoded the signal here in Florida.
>> --
>> Gerry Wheeler KG4NBB
>> Naples, FL
>> N26.28 W081.76
>>
>>
>

4047. Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 08:13:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2ufri$i3d$1@hercules.btinternet.com>
Source record: 98419

To fit your your new Inverted-V into your back yard with maximum efficiency,
download program INV_VEE from website below and vary the dangle-angle.
Includes best match for 50 or 75 ohms, or what have you? And feedline
performance.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4048. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 13:35:19 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40530E17.3FB2CB69@cwis.net>
Source record: 98420

Cecil,
But did you see my 'tongue in cheek'? Looked
sort of like a ball player three months behind
with his 'Red Man'...
'Doc

4049. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 13:38:44 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40530EE4.AD358844@cwis.net>
Source record: 98421

Cecil,
Miracles do happen!
'Doc

4050. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 13:47:35 UTC
From: 14313 <democreeps@herblivesnow.net>
Message-ID: <c2v3ao$pp8$0@pita.alt.net>
Source record: 98422
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

You losers from r.r.a.p. need to quit x-posting and go back to
worshipping Phil Kane.

Herbie Lives!

"Jim Hampton" <aa2qa@frontiernet.net> wrote in message
news:Uyq4c.2526$vP3.975@news02.roc.ny...
> Regardless of your ignorance, it is the amateurs that are pointing out the
> potential problems of BPL. If nothing else, this speaks volumes about the
> need for reasonable tests for potential amateurs (not something that you
can
> walk into a test and walk away with an 'extra' class license). The
code/no
> code arguement, in my opinion, is moot; what is more to the point is what
> these amateurs can and *do* contribute, regardless of the rants of many
> folks who may be envious of the frequencies available to amateurs.
>
> I worked in EMC compliance. We had a problem with interference from
> powerlines. Yes, it is possible to reduce the problem. Whilst it won't
> qualify as a test to pass a particular piece of hardware, it is *great*
for
> determining sources of RFI. Someone has a problem with RF interference to
> home equipment (not necessarily amateur). How do you solve it? I've
helped
> in both cases. Some folks have minds so closed that they can't see the
> forest for the trees (or vice-versa).
>
> I remember finishing my active duty with the U.S. Navy. I suspect it was
> verteran's day as there had been a parade and I was in a bar later on. A
> few guys in Navy uniforms had a problem. I overheard the conversation.
> Their transmitter had low output and couldn't tune. I went over to them
and
> asked to see the transmitter. Sure enough, a bad cap in the tank circuit.
> We repaired it on the spot (dang if I didn't get hornswaggled into joining
> the reserves LOL).
>
> When folks like you ask "did you repair that pothole in interstate 90
> between ....", you are missing the point. It is the knowlege and theory
> that can enable hams to assist in many situations. Although I had engaged
> in emergency communications on Guam Island (and it was many years ago) and
> an SOS on 500 KHz at sea (also many years ago), you assume that I am
> obsolete. I would suggest that bad capacitors still happen and the folks
> with some technical background still can help. Although that situation
with

> the U.S. Naval Reserve was many years ago, I've also repaired much more
> modern transceivers in the past decade. I am also quite capable of
reducing
> interference between devices today. You dwell on the past; the
technically
> astute needn't.
>
> BTW, BPL is *not* going to serve the "underserved". I won't explain it.
> You take the time and effort (*if* you have the perseverence - which I
> doubt - and research it).
>
>
> 73 from Rochester, NY
> Jim AA2QA
>
> "Barry OGrady" <god_freee_jones@hotmail.com> wrote in message
> news:2cgv40plruna52lu189bfk0vgaij0lt0t0@4ax.com...
> > On Wed, 10 Mar 2004 05:46:09 GMT, Zoran Brlecic <...WA7AA...@get.lost>
> wrote:
> >
> >
> > What needs to be weighed up is the cost/benefit ratio.
> > If BPL can benefit a huge number of people while inconveniencing a few
> amateurs
> > then it is justified. Remember that amateur radio is a hobby that
> unjustifiably occupies
> > valuable radio spectrum.
> >
> > >--
> >
> >
> > -Barry
> > ========
> > Web page: http://members.optusnet.com.au/~barry.og
> > Atheist, radio scanner, LIPD information.
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.615 / Virus Database: 394 - Release Date: 3/8/04
>
>

4051. 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 14:00:56 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <jt46509rvejoqtg6n1vs18qsj2udasv1sf@4ax.com>
Source record: 98423

Just curious as to what most of you are using as an antenna on
the 30 Meter band?

I've used many and was just wondering if i could improve my overall DX
performance with something other than a Dipole. With out going to the
expense of a Beam.

73 Dave

4052. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 14:09:45 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040313090945.20524.00001490@mb-m28.aol.com>
Source record: 98424

>Richard Clark, KB7QHC:

>Part of this debate has ignored that all resonant circuits can be
>analyzed as both parallel and series. That is, barring your and my
>observations.
>
>To force the parallel resonant observation upon the quarterwave
>vertical, all that need be done is to move the drive from the base to
>the tip. The same current distribution will be observed, the same
>radiation characteristic will persist, and as such nothing has really
>changed.
>

Uh, huh, NOT!

> The top hat does not grace a full
>quarterwave vertical as it would be redundant to that mission. Such
>an addition would end up instead throwing the design into a quasi
>3/8ths tuning, or such, to dubious purpose.

Uh, huh.
Quasi 3/8 tuning (with 1/8 radials) provides 50 ohm impedance, no need for matching junk, lowers tha angle and provides increase in gain. Dubious? Not to me.

>Logically, the addition of more
>capacity does not lead to resonance.

Oh no?

Yuri, K3BU

4053. Re: Direction finding antenna technology

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 14:21:26 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040313092126.20524.00001492@mb-m28.aol.com>
Source record: 98425

>
>> I'd like to be able to build a similar unit in the 144 MHz band for
>> direction finding over short distances. In other words, for use on the
>> final leg of a DF contest where the transmitter is buried in brush in a
>> remote area. A parasitic array or even a single loop wouldn't be as rugged
>> or hand-holdable as I'd like.
>>

Do a search for Fox Hunt. There is considerable activity in US now in that sport. 73 mag had plenty of articles, that technology is well developed.

For 2m hunt antenna, the smallest one would be 2 el Moxon or ZL special, or if you need to shorten the elements further, you can load them with coils. This is another case where current in loading coils distribution is important :-)

You can make elements out of springy wires, so they can bend and return to shape while going through the bushes (why?).

Yuri, K3BU

4054. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 14:26:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2v5m0smk1@hercules.btinternet.com>
Source record: 98426

> Just curious as to what most of you are using as an antenna on
> the 30 Meter band?
>
> I've used many and was just wondering if i could improve my overall DX
> performance with something other than a Dipole. With out going to the
> expense of a Beam.
>
Without going to the expense of a reflector or a director, probably not rotateable, there's only a vertical to try. But I'm sure a vertical will make a big difference - either for better or worse.

Reg.

4055. 80 Meter Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 15:42:34 UTC
From: Winston <win@here.com>
Message-ID: <bsa650t7bcgn7dlv3uakh92ef6rah7g3ue@4ax.com>
Source record: 98427

I put up a 133 ft Windom at 40 feet to operate some CW on the lower bands during the down cycle. It seems, on 40 Mtrs, I am getting great reports to the north, MI and Canada, but lower reports to the south. This thing can't have a front to back, can it? Can anyone point me to some radiations patterns for the Windom?

Thanks.

Win w0lz

4056. Re: 80 Meter Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 15:51:44 UTC
From: Dave <noone@nowhere.com>
Message-ID: <mY-dnU-SkYuPs87dRVn-vA@crocker.com>
Source record: 98429

yes, it can. it could also be that the ground is better one way than the other, there is a building the wrong (or right) distance away one way or the other, that there is a hill in the way one way, that you have been on when propagation favors one direction over the other, or that you have just contacted people who have better receivers to your north than to your south. random on the air tests of antennas are poor at best, misleading at worst, and are generally not all that useful in figuring out what the antenna itself is doing.

"Winston" <win@here.com> wrote in message
news:bsa650t7bcgn7dlv3uakh92ef6rah7g3ue@4ax.com...
> I put up a 133 ft Windom at 40 feet to operate some CW on the lower
> bands during the down cycle. It seems, on 40 Mtrs, I am getting
> great reports to the north, MI and Canada, but lower reports to the
> south. This thing can't have a front to back, can it? Can anyone
> point me to some radiations patterns for the Windom?
>
> Thanks.
>
> Win w0lz
>
>

4057. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 15:51:57 UTC
From: 14313 <democreeps@herblivesnow.net>
Message-ID: <c2vajs$7gu$0@pita.alt.net>
Source record: 98428
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:be665018dbehr6cclfdtglkk9cq8nmppss@4ax.com...
>
> And you need to quit top-posting and leaving 85 lines of irrelevant
> quotes trailing beneath your comments like a long, gray beard.
>
> Have a nice life.
>
> 73 de G3NYY
> 'Death to No-Coders'
>
> --
> Walt Davidson Email: g3nyy @despammed.com

PLONK!

FLUSHED!

gone

14313

4058. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 16:04:45 UTC
From: richardharrison@webtv.net
Message-ID: <25871-4053311D-29@storefull-3256.bay.webtv.net>
Source record: 98430

Cecil, W5DXP wrote:
"You switch off one of the signals. How long does it take for me to sense any energy?"

Yes, if the transit time is one year, that`s how long it takes to sense any change in received signal.

I was wrong when I wrote waves would be exhibitable on demand were they annhilated. Cecil was right. It makes no difference whether two equal and opposite signals are received or no signal is received. Same result.

What happens at an open circuit on a transmission line? The current is interrupted and must reverse direction as it has nowhere else to go. A changed direction is a reversed polarity so incident and reflected currents add to zero.

Energy in the magnetic field is eliminated by the addition to zero of the incident and reflected currents. This canceled energy goes to the only place it can go, into the electric field. This results in doubling the voltage at the open-circuit end of the line.

In a short-circuit on a line, the current doubles and the voltage goes to zero.

1/4-wave back from a short, a near open circuit exists. !/4-wave back from an open or a short, conditions are inverted on a low-loss line. Where there is an open-circuit at the end of a line, a near short circuit exists 1/4-wave back.

I think that at the open circuit at the end of a line, the excess voltage launches the reflected wave. At the short on a line, excess current launches a reverse wave. Voltage produces current and current produces voltage. Voltage and current are dominnated by the Zo of the line in all movement through the line.

Cecil has argued that the high impedance at the open end of a shorted 1/4-wave stub does not inhibit current into the stub. The reflection point is at the short, not at the high impedance point back 1/4-wave from the short. That sounds reasonable to me, but I wonder if it makes any difference.

Best regards, Richard Harrison, KB5WZI

4059. Re: 80 Meter Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 16:20:17 UTC
From: Winston <win@here.com>
Message-ID: <10d650tcb8nujifsptqqg34unpfh1086p8@4ax.com>
Source record: 98431

On Sat, 13 Mar 2004 15:51:44 -0000, "Dave" <noone@nowhere.com> wrote:

You may be right, Dave. I live on a lake and am radiating over water
to the north. I also have a little natural screening to the south.

Win w0lz

>yes, it can. it could also be that the ground is better one way than the
>other, there is a building the wrong (or right) distance away one way or the
>other, that there is a hill in the way one way, that you have been on when
>propagation favors one direction over the other, or that you have just
>contacted people who have better receivers to your north than to your south.
>random on the air tests of antennas are poor at best, misleading at worst,
>and are generally not all that useful in figuring out what the antenna
>itself is doing.
>
>"Winston" <win@here.com> wrote in message
>news:bsa650t7bcgn7dlv3uakh92ef6rah7g3ue@4ax.com...
>> I put up a 133 ft Windom at 40 feet to operate some CW on the lower
>> bands during the down cycle. It seems, on 40 Mtrs, I am getting
>> great reports to the north, MI and Canada, but lower reports to the
>> south. This thing can't have a front to back, can it? Can anyone
>> point me to some radiations patterns for the Windom?
>>
>> Thanks.
>>
>> Win w0lz
>>
>>
>

4060. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 17:01:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mbf650tu89oafeahgf8ue0he4l4td7rmgj@4ax.com>
Source record: 98432

On 13 Mar 2004 14:09:45 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:
>>Logically, the addition of more
>>capacity does not lead to resonance.
>
>Oh no?

Ah, such a bonus round!

How many pF capacitance in your top hat? :-)

73's
Richard Clark, KB7QHC

4061. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 17:02:20 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <w8H4c.2379$GQ3.863@newsread3.news.atl.earthlink.net>
Source record: 98433

"KC1DI" <kc1di@arrl.net> wrote in message
news:jt46509rvejoqtg6n1vs18qsj2udasv1sf@4ax.com...
> Just curious as to what most of you are using as an antenna on
> the 30 Meter band?
>
> I've used many and was just wondering if i could improve my overall DX
> performance with something other than a Dipole. With out going to the
> expense of a Beam.
>
> 73 Dave
>

I have used a variety of antennas on 30. At present I am using my 40m,
vertical loop, fed with 450 ohm line.

I also have a ladder line fed center fed, total length of 140' that I use
on AF MARS. Also does a good job.

Dan/W4NTI

4062. Help: Diamond X-500HNA 2m/70cm Antenna Schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 17:15:34 UTC
From: ke7nr@cox.net
Message-ID: <4053416a.18542102@news.cox.net>
Source record: 98434

Hi,

I ned to know the value of the little shunt cap in the base of this
antenna as I blew mine up.

Thanks,

Don>>>KE7NR@cox.net

4063. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 17:16:50 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <6mH4c.9281$oE1.5596@newssvr23.news.prodigy.com>
Source record: 98435

From the 60s, after engr class
..
the angle of the dangle ...
is in constant proportion to the mass of the ass..

and unfortunately I can't recall the rest..
which might be the best...
73
Hank WD5JFR
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c2ufri$i3d$1@hercules.btinternet.com...
> To fit your your new Inverted-V into your back yard with maximum
efficiency,
> download program INV_VEE from website below and vary the dangle-angle.
> Includes best match for 50 or 75 ohms, or what have you? And feedline
> performance.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

4064. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 17:17:12 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <smH4c.2395$GQ3.676@newsread3.news.atl.earthlink.net>
Source record: 98436

All very true. I have been trying to do the same here. Most every night I bring the subject of BPL up on our Alabama Traffic net. And I think it is helping.

So far one of out member has hat a chat with the Gov. about it. Who had never heard of it. Many members have sent out letters to their congressman. Some have even been in touch with Alabama power, a Southern company.

Dan/W4NTI

"aunwin" <aunwin@insightbb.com> wrote in message
news:fU34c.6180$zS4.53815@attbi_s51...
> Dan, I was talking tongue in cheek to create more thought on how this
> problem should be aproached. Yes the threat is dire and the FCC can no way
> stop progress if that what it turns out to be. But we are not alone in
this
> struggle, many others use these frequencies whether for broadcasting or
> mechanical/medical control. It is so much better to be prepared and
consort
> with allies for when the real battle begins which will revolve around
> protection for other users. This is not the time to cry wolf which
> provides no benefit only discredit. The ARRL believes that they no that
the
> outcome will be huge interference where the voices of the few will or may
be
> drowned out, thus the task is really to forge alliances and supply them
with
> the technical info around which all can pursue at the apropiate time. To
> suggest,impune or otherwise degenerate the FCC or leave an impression that
> can be perceived to be thrown that way does not get the attention of those
> we wish to influence so now as I suggested earlier we should keep our
powder
> dry and focuss on supporting the regulations which are in place I.E new
> services must not be allowed to imping, didturb or otherwise interefere
with
> the present users.
> It is around this where the battle is really to be fought and it is for
that
> one should be ready for together ith allies to bolster our diminishing
> numbers.
> Regards
> Art
> "Dan/W4NTI" <w4nti@get rid of this mindspring.com> wrote in message
> news:rU24c.15552$%06.14093@newsread2.news.pas.earthlink.net...
> > I like your idea Art. But I think the phone portions of the band should

> be
> > trashed with BPL. For the following reasons;
> >
> > SSB is a old Amplitude Modulation Mode, first played with way back in
the
> > 1930s. So its too old for todays technology.
> >
> > Put those interested in voice modes on digital voice only and put them
all
> > in the cw/digital segments.
> >
> > That will clear up the phone bands and let BPL have a clear shot.
> >
> > What say?
> >
> > Dan/W4NTI
> >
> > "Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
> > news:85ed38d.0403091947.76460ae@posting.google.com...
> > > Why doesn't the ARRL offer BPL people the code portions of amateur
> > > bands.
> > > With removal of the code from exams around the World and the aging of
> > > the hobby
> > > being generous with an offer will help the hobby to survive a bit
> > > longer. If the interference created is not to the common good then BPL
> > > goes out the window, if the interference does NOT occur then the
> > > common good should benefit.
> > > We have to recognise that the hobby is not attracting sufficient new
> > > members as more auguements occur and as computors become the prime
> > > vehicle for communication via forums such as this.
> > > Regards
> > > Art
> > > the bansthatcher <thatc4@net.com> wrote in message
> > news:<c265ct027k1@enews2.newsguy.com>...
> > > > http://biz.yahoo.com/fool/040303/1078348320_1.html
> > > >
> > > >
> > > > *Motley Fool*
> > > > Broadband and Utilities, Oh My
> > > > Wednesday March 3, 4:12 pm ET
> > > > By Mark Mahorney
> > > >
> > > > Only a year ago, broadband over power line (BPL) was seen as a
> > > > technology with an uncertain future and far from implementation.
> Despite
> > > > early snafus, BPL has ironed out its kinks and is now being rolled
> out.
> > > > Though largely ignored, this is one of the most exciting events to
hit
> > > > technology news in a long time.

> > > >
> > > > ADVERTISEMENT
> > > >
> > > > Considering how long the Internet has been sharing phone lines, it's
> > > > taken a long time for power lines to reach the dual-use point. Cable
> and
> > > > DSL Internet service providers have been crossing their fingers
hoping
> > > > it wouldn't happen.
> > > >
> > > > It's sneaking up on them just as cable Internet launched a sneak
> attack
> > > > on dial-up providers. Now, the dial-up providers are largely
dependent
> > > > on phone company partnerships and rural customers who can't get
cable
> or
> > > > DSL. But what will become of them if those customers -- which
> represent
> > > > a significant portion of the population -- can get broadband
Internet
> > > > over their power lines? And who would have thought we may soon be
> paying
> > > > our power company for Internet access?
> > > >
> > > > Yesterday, *Cinergy* (NYSE: CIN
> <http://finance.yahoo.com/q?s=cin&d=t> -
> > > > News <http://finance.yahoo.com/q/h?s=cin>) announced that its
Cinergy
> > > > Broadband subsidiary and partner Current Communications are rolling
> out
> > > > the BPL service in the Cincinnati, Ohio area. After testing the
> service
> > > > in a small region, the company is ready to unleash the power (no pun
> > > > intended). It claims its service is faster -- more than three
> megabytes
> > > > per second compared with cable's roughly two megs per second -- and
> > > > cheaper than cable Internet.
> > > >
> > > > Test customers have been happy with the service, and there have been
> no
> > > > problems with interference. Furthermore, all that's needed to tap
into
> > > > it is a $30 HomePlug power line modem, which the company will be
> giving
> > > > away.
> > > >
> > > > Cinergy isn't the only utility looking at this technology, either.
> There
> > > > are numerous power companies developing the capability or watching

```
its
> > > > development closely. Internet start-ups like Current Communications
> are
> > > > > waiting in the wings to help the utilities initiate and manage the
> > service.
> > > > >
> > > > > It's a potentially huge revenue source for the utilities, with the
> > > > > possibility of being a huge revenue drain for the current Internet
> > > > > providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
> > > > > <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
> > > > > <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
> > > > > Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
> > > > > <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
> > > > > <http://finance.yahoo.com/q?s=bls&d=t> - News
> > > > > <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications*
(NYSE:
> > > > > SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
> > > > > <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional
> dial-ups
> > > > > like *Time Warner's* (NYSE: TWX
> <http://finance.yahoo.com/q?s=twx&d=t> -
> > > > > News <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
> > > > > *Microsoft's* (Nasdaq: MSFT
<http://finance.yahoo.com/q?s=msft&d=t> -
> > > > > News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying
> > attention.
> > > > >
> > > > > From the look of things, this technology will roll out much faster
> than
> > > > > most people expect. I am certainly willing to give it a try if and
> when
> > > > > it comes to my area. And I recommend you check with your local power
> > > > > company to see if it has any plans to implement the technology. If
so,
> > > > > consider taking a good look at both the stock and the service. It
> could
> > > > > be the next big thing.
> > > > >
> > > > > /What do you think this new technology means for cable companies
like
> > > > > Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
> > > > > service providers like Time Warner's AOL
> > > > > <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
> > > > > other Fools on our discussion boards./
> > > > >
> > > > > /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
> > > > > doesn't own shares of any companies mentioned./
> >
> >
>
```

>

4065. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 17:21:56 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <6wH4c.5720$uh.5339@fed1read02>
Source record: 98437

"Radio913" <radio913@aol.com> wrote in message
news:20040312121923.25923.00001112@mb-m01.aol.com...
> >If you put the array on a rotator and put a receive antenna with some
> >sensitive output indicator beyond the near field, you can plot relative
> >field,

SNIP

>
> Also, i don't really have a transmitter that I can vary the power that
> much...maybe that's something i should make or get. Something variable at
> least by 20dB or so.
>
>
> Slick
>

You don't need to pump power to measure antenna patterns. A simple signal generator with a milliwatt or so will work fine. If you want to be really serious about designing antennas, then you need to start acquiring serious tools. See eBay; start bidding on a sig gen, some pads (attenuators), a rotor, a field strength meter.

Ed

4066. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 17:51:27 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <Xc-dnQZfzYSA187dRVn-gQ@comcast.com>
Source record: 98438
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

Slick,

The only thing about making the 48 inch mast non resonant is what's on the other end of it? A ceramic insulator is not the same as a Radio Shack steel house bracket. Since it is behind the first reflector, probably doesn't matter in the real world.

Tam/WB2TT
"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0403122208.6c8539fc@posting.google.com...
> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:<tu-dncCPoLuXns_dRVn-gg@comcast.com>...
> > If the second reflector is actually doing anything, which I doubt, you
> > should be using a non metallic mast, and not bringing the coax down
between
> > the reflectors.
> >
> > Tam/WB2TT
> >
>
> Actually, if you believe the yagi optimizer program, the second
> reflector is indeed not doing TOO much, but it does affect the back
> shape of the pattern, and improves the impedance bit, and also
> increases the dBd of the outer edge of the pattern by tiny bit too.
>
> And i did simulate having the mast at 48 inches from the DE, which
> i was advised was the distance where the mast would have the least
> affect. Changing the mast length in the YO program does affect the
> pattern shape though, so i tried to make the mast a non-resonant
> length.
>
> At any rate, we could probably survive without the second
> reflector, you are most likely correct, but maybe for the next design.
>
> It first, i considered having the "T" section of PVC pipe move
> outwards at a 90 degree angle, and then attach another section of 2"
> PVC that would be sticking out, so that the coax would be totally
> perpendicular to all the elements. But, this would be a bit unwieldy.
>
>
>
> Slick

4067. ATAS120

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 17:51:51 UTC
From: Bob Meyer <w8dq6m@earthlink.net>
Message-ID: <XSH4c.2479$GQ3.1993@newsread3.news.atl.earthlink.net>
Source record: 98439

Like to hr from others using ATAS 120 antenna.

Bob W8DQ/9

4068. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 18:06:24 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <tmi650h87ol7ccrdi6lrg12eh4o9ka1cgh@4ax.com>
Source record: 98440

On Fri, 12 Mar 2004 21:12:23 GMT, Walter Maxwell <w2du@iag.net> wrote:

>My first publication of this issue appeared in QST, October 1973, entitled, "A
>View Into the Conjugate Mirror." This article appears in both Eds 1 and 2 of
>Reflections as Chapter 4, Steve also copied from another of my articles, this
>one in QEX,, Mar/Apr 1998, entitled "Examining the Mechanics of Wave
>Interference in Impedance Matching," which also appears in Reflections 2 as
>Chapter 23.
>
>Steve and I have been in contentious controversy on this subject for several
>years. He continued this controversy by publishing this totally erroneous
>material in QEX,, erroneous except for the portion in the single column where he
>presented my material correctly. The remaining portion of his article is simply
>an unsuccessful attempt to show that my position is incorrect, and therefore
>calls it a 'fallacy'.
>
>In fact, however, the entire portion following the correct portion he copied
>from me is where the REAL fallacy lies--it proves that he knows very little
>about the subject of his title, "Wave Mechanics of Transmission Lnes." It also
>shows he doesn't have a clue concerning the superposition of two rearward
>traveling waves that are conjugately related at the matching point. In fact,
>the two waves cancel each other, and establish either a one-way open circuit or
>a one-way short circuit that totally re-reflects the reflected power, with its
>voltage and current components traveling in the same phase as t;hose from the
>source, and therefore adding to the source power.
>
>I know that many on this thread believe that no open or short circuit can be
>established by the superposition of waves. It is true that forward and reflected
>waves, traveling in OPPOSITE directions establish only the standing wave--no
>open or short circuits. But it's a different ball game when two waves traveling
>in the SAME direction are conjugately related. The waves are conjugately related
>because the canceling wave generated by the matching device is tailored to have
>the same magnitude but opposite phase as the wave reflected from the mismatched
>load on the transmission line.
>
>Here's why a short or open circuit is established when conjugately related waves
>join at a matching point. From an analytic viewpoint the voltage appearing at
>any point on the line can be replaced with a generator delivering the same
>voltage at the same phase that appears at that point. This generator is called a
>'point' generator that delivers an impedance-less EMF. Now consider one
>generator delivering the voltage appearing in the wave reflected at the
>mismatched load and a second generator delivering the voltage from the canceling
>wave reflected by a matching stub, or whatever the matching device, at the same
>point on the line as the first. The voltage from this second generator has the

>same magnitude, but opposite phase from that of the first generator. When the
>voltages delivered by the t wo generators are 180 degrees out of phase we have a
>short circuit--if they're in phase we have an open circuit. As the result, in
>either of these two conditions no reflected wave can pass rearward of the
>matching point.
>
>From the simple fact that the impedance at the input of an antenna tuner is 50+
>j0 we know that no reflected power is traveling rearward further than the tuner
>input. Where did the power in the reflected wave go? That energy cannot
>disappear as if by some sort of magic--it is totally re-reflected by the open or
>short circuit, and adds to the source power to establish a forward power equal
>to the sum of the source and reflected power.
>
>I hope this helps to end the confusion, and also gives Cecil what he deserves
>for his attempt to give you guys the straight dope.
>
>Walt, W2DU
>
This is a post script to go along with the above discussion.

Sorry, Guys, I forgot to mention that for those of you who don't have access to my QEX article, or Chapter 23 in Reflections, Chapter 23 appears in PDF form for downloading from my web page at http://home.iag.net/~w2du.

I would also like to add that from the first QST article I published on this subject in 1973, and the QEX article in 1998, I have received more than one hundred responses from RF engineers saying that my explanation of impedance matching via wave mechanics gave them the first real understanding of how the impedance matching process works. No one, other than Steve Best, has disputed my explantion.

If the more than one hundred responses seems exaggerated please take a look at the hit count on my web page. At this time the hit count reads 19,927, and I've had NO responses disputing any of the material presented there.

So who do you want to believe? Steve Best or me?

Walt, W2DU

4069. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 18:19:51 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <u2k650psi1tm49auej96suf39u4ij8r81k@4ax.com>
Source record: 98441

On Sat, 13 Mar 2004 17:16:50 GMT, "Henry Kolesnik" <kolesnik@sbcglobal.net>
wrote:

>From the 60s, after engr class
>..
>the angle of the dangle ...
>is in constant proportion to the mass of the ass..
>
>and unfortunately I can't recall the rest..
>which might be the best...
>73
>Hank WD5JFR

Dang, Hank, I was hoping you could finish that little ditty. I can't remember
the remaining part either, and I was hoping you could refresh my memory.

Walt, W2DU

4070. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 18:34:54 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403131034.239550ae@posting.google.com>
Source record: 98442

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
news:<40527c63_3@news1.prserv.net>...

> OK, one alternative is to use a known accurate (1dB) step attenuator in the
> receive line to get the relative numbers. Always go for the same strength
> indication on the receiver. Start at the azimuth with lowest indication,
> and add attenuation as it rotates.

Yeah, that's a good idea. I made an amplified RF sniffer from
plans in the ARRL handbook that uses an op-amp, but i never calibrated
the meter.

i could do this if i had bought one of those step attenuators at
that ham fest i was at. Even if i had bought the somewhat inaccurate
one that rotated, i could have still measured how off it was on a
power meter.

Yeah, i can set the sensitivity of the sniffer with a pot that
controls the feedback resistor, and i can set for full scale
deflection at the rear lobe, which should be the lowest field
strength, and then increase the attenuation to maintain the same
needle position.

I'd have to get it back from the guy and take it off the rooftop
again! This experiment will have to wait!

He's getting out just fine...

:)

Slick

4071. For Sale - Texscan Sweep Generator model SG-677U $99.00 + shipping & handling.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 18:54:29 UTC
From: mikelgiles@bfesystems.com
Message-ID: <51d5c4f4.0403131054.4cbed137@posting.google.com>
Source record: 98443
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.ham-radio.swap

For Sale - Texscan Sweep Generator model SG-677U $99.00 + shipping & handling.

Unit is mounted in a very sturdy military carrying case but can be removed for rack mounting. I have no way of testing other than making sure it turns on and the dials and gages looks like they are working, so I am offering on a money back guarantee (less return shipping cost). Pictures can be found at www.dentonmarket.com or contact me at mikelgiles@bfesystems.com

4072. 40m full wave NVIS loop - mulitband use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 19:53:43 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <405366C7.6050000@optusnet.com.au>
Source record: 98444

Hi All

I want to get some ideas on how to feed my horiz 40M loop (NVIS) for harmonics of 7Mhz. It is sufficiently low to the ground that the feed Z is close to 50r (which makes 14Mhz - 100r, 21Mhz - 150r amd 28MHz - 200r)

I realise that the radiation pattern may nit be desirable. Space is kind of limited here and stealth is important

I want it to be "no tune/no ATU" and to avoid switching things in and out. It is currently fed directly with coax and a 1:1 ferrite balun. I cant use open wire feeder back to the TX (needing at least 10M of coax)

Cheers Bob VK2YQA

(bcnntp doesnt exist. If important use bcnoop)

4073. Re: 40m full wave NVIS loop - mulitband use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 20:25:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c2vqo2$113$1@titan.btinternet.com>
Source record: 98445

I'm under the impression that NVIS propagation fails at the higher HF
frequencies - that is frequencies above the vertical Critical Frequency
which pass right through the E and F layers without reflection.

How often does the critical frequency exceed 14, 21 and 28 MHz for NVIS
operation to succeed? Which is better - day or night. Thanks.

Reg.

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:405366C7.6050000@optusnet.com.au...
> Hi All
>
> I want to get some ideas on how to feed my horiz 40M loop (NVIS) for
> harmonics of 7Mhz. It is sufficiently low to the ground that the feed Z
> is close to 50r (which makes 14Mhz - 100r, 21Mhz - 150r amd 28MHz - 200r)
>
> I realise that the radiation pattern may nit be desirable. Space is kind
> of limited here and stealth is important
>
> I want it to be "no tune/no ATU" and to avoid switching things in and
> out. It is currently fed directly with coax and a 1:1 ferrite balun. I
> cant use open wire feeder back to the TX (needing at least 10M of coax)
>
> Cheers Bob VK2YQA
>
> (bcnntp doesnt exist. If important use bcnoop)
>

4074. Re: 40m full wave NVIS loop - mulitband use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 20:32:12 UTC
From: Dave <noone@nowhere.com>
Message-ID: <D7qdnVZwqPpT8s7dRVn-gw@crocker.com>
Source record: 98446

lets see, no tune, no atu, no switching, only coax.... not too many restrictions here. i would recommend one of those super automatic no power no adjust antenna tuners that was sold briefly here in the states... until someone x-rayed the sealed enclosure and found it was nothing but a 50 ohm dummy load... worked relatively well with any length of wire over a wide frequency range with no adjustment. similar arrangements have been used for rhombics, adding a terminating resistor at the far end makes them much broader banded. the same thing is done on Beverage receive antennas, a resistor at the far end makes their pattern better. with this 'tuner' the idea is to swamp whatever odd impedance the wire antenna presented with the dummy load, at some frequencies you could get loss down to 3db or so, at others it was much higher, but you never had to tune anything and it was ready to go instantly on any frequency.

the more acceptable answer is to get a rig with a built in tuner or get a small external tuner.

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:405366C7.6050000@optusnet.com.au...
> Hi All
>
> I want to get some ideas on how to feed my horiz 40M loop (NVIS) for
> harmonics of 7Mhz. It is sufficiently low to the ground that the feed Z
> is close to 50r (which makes 14Mhz - 100r, 21Mhz - 150r amd 28MHz - 200r)
>
> I realise that the radiation pattern may nit be desirable. Space is kind
> of limited here and stealth is important
>
> I want it to be "no tune/no ATU" and to avoid switching things in and
> out. It is currently fed directly with coax and a 1:1 ferrite balun. I
> cant use open wire feeder back to the TX (needing at least 10M of coax)
>
> Cheers Bob VK2YQA
>
> (bcnntp doesnt exist. If important use bcnoop)
>

4075. Re: Mobile antenna for 1296 MHz?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 21:17:06 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40537c76_4@news1.prserv.net>
Source record: 98447

Tad:

The only record I have been able to turn up is a slip of paper referring to the "1290 series 1.2 GHz antenna" It was likely nomenclatured NMO-1290, with some additional letter suffix.

And the HRO is in Sunnyvale. I never remember where the city limits are.

--
Crazy George
Remove N O and S P A M imbedded in return address

4076. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 21:21:37 UTC
From: wm2f@pics.com
Message-ID: <74e1d9f2.0403131321.30e476@posting.google.com>
Source record: 98448

Im running a multiband dipole for 40 and 30 meters at 50 feet. I get great results and when the band is open get good DX results. I also have a homebrew vertical GP that has limited results. When switching between the 2 antenna's the dipole always receives better.
I think the height of the dipole and whether it is cut for resonances is a big factor. I dont use a tuner for 40 or 30 meters. Also I have a 1:1 Van Gordon High Q Balun at the feed point. My coax run is about 60 feet.
This is a tough time to evaulate antenna's. Band condx's are so poor that we tend to blame our equipment. A few nights ago from New Jersey, I was getting solid contacts to Europe and South America then the band closed.

Best 73's
Mike
WM2F

4077. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 21:40:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40538020$1_3@corp.newsgroups.com>
Source record: 98449

'Doc wrote:
> But did you see my 'tongue in cheek'?

Nope, I didn't, Doc. "Seeing" is not one of my strong
points lately given cataracts and macular degen.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4078. Re: 80 Meter Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 21:49:35 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40538226$1_3@corp.newsgroups.com>
Source record: 98450

Winston wrote:
> I put up a 133 ft Windom at 40 feet to operate some CW on the lower
> bands during the down cycle. It seems, on 40 Mtrs, I am getting
> great reports to the north, MI and Canada, but lower reports to the
> south. This thing can't have a front to back, can it? Can anyone
> point me to some radiations patterns for the Windom?

An off-center-fed dipole favors the hemisphere toward the long end.
If the long part of the dipole is pointing North, you will get the
best results in NE and NW directions. TOA on 40m is about 45 deg.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4079. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 21:53:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40538316_3@corp.newsgroups.com>
Source record: 98451

Richard Harrison wrote:
> Cecil has argued that the high impedance at the open end of a shorted
> 1/4-wave stub does not inhibit current into the stub. The reflection
> point is at the short, not at the high impedance point back 1/4-wave
> from the short. That sounds reasonable to me, but I wonder if it makes
> any difference.

Only to those who think the stub is a physical open-circuit at the
mouth of the stub and therefore, no current flows in the stub. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4080. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 21:58:05 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40538425$1_3@corp.newsgroups.com>
Source record: 98452

Henry Kolesnik wrote:
> the angle of the dangle ...
> is in constant proportion to the mass of the ass..
>
> and unfortunately I can't recall the rest..
> which might be the best...

Something in there about the "cube of the root".

Have you seen this one written out?

The integral of e to the x equals function of u to the n.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4081. Re: 40m full wave NVIS loop - mulitband use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 22:00:43 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <it0750h0caa7mc791komcad287q6m4pqp9@4ax.com>
Source record: 98453

On Sun, 14 Mar 2004 06:53:43 +1100, Bob Bob <bcnntp@optusnet.com.au>
wrote:

>Hi All
>
>I want to get some ideas on how to feed my horiz 40M loop (NVIS) for
>harmonics of 7Mhz. It is sufficiently low to the ground that the feed Z
>is close to 50r (which makes 14Mhz - 100r, 21Mhz - 150r amd 28MHz - 200r)
>
>I realise that the radiation pattern may nit be desirable. Space is kind
>of limited here and stealth is important
>
>I want it to be "no tune/no ATU" and to avoid switching things in and
>out. It is currently fed directly with coax and a 1:1 ferrite balun. I
>cant use open wire feeder back to the TX (needing at least 10M of coax)
>
>Cheers Bob VK2YQA
>
>(bcnntp doesnt exist. If important use bcnoop)

I'm not too Sure exactly what you want to do with this antenna but as
you go up in Frequency the antenna will become less and less NVIS..
though it will make plenty of DX qsos. But I really do not see many
options for you except a tuner of some sort.. I use a little LDG Z100
Auto tuner here with my 160M loop which i'm feeding with a short run
of Coax. it work quite well on all bands 160 --- 10M and it takes on
seconds to tune.

73 Dave

4082. Re: 40m full wave NVIS loop - mulitband use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 22:03:55 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40538582$1_3@corp.newsgroups.com>
Source record: 98454

Bob Bob wrote:
> I want it to be "no tune/no ATU" and to avoid switching things in and
> out.

Bob, if such existed, almost everybody would be using one. The best
I can offer is switched lengths of feedline, depending upon what
band you are on. For a 40m dipole, 1/2WL of ladder-line. For a 40m
dipole used on 20m, 3/4WL of ladder-line is about right.

I run a 130 ft. dipole on all HF bands with no tuner (per se) simply
by switching lengths of ladder-line. Take a look at my web page.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4083. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 22:08:47 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <7b17509po3d0fgdllpa27jd79vdvp3f35j@4ax.com>
Source record: 98455

On Sat, 13 Mar 2004 15:53:34 -0600, Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
wrote:

>Richard Harrison wrote:
>> Cecil has argued that the high impedance at the open end of a shorted
>> 1/4-wave stub does not inhibit current into the stub. The reflection
>> point is at the short, not at the high impedance point back 1/4-wave
>> from the short. That sounds reasonable to me, but I wonder if it makes
>> any difference.
Cecil wrote:>
>Only to those who think the stub is a physical open-circuit at the
>mouth of the stub and therefore, no current flows in the stub. :-)

In a stub constructed of lossless material the only current that flows in the
stub is that required to bring it up to the steady statecondition.

In a practical stub with attenuation current flows into the stub continually,
but only that sufficient to compensate for the loss due to attenuation to retain
it's steady state condition.

Walt, W2DU

4084. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 22:28:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40538b31$1_3@corp.newsgroups.com>
Source record: 98456

Richard Harrison wrote:
> I was wrong when I wrote waves would be exhibitable on demand were they
> annhilated. Cecil was right. It makes no difference whether two equal
> and opposite signals are received or no signal is received. Same result.

Which means that if two coherent waves flowing in the same direction are completely cancelled, the E-fields and the H-fields in that direction are also cancelled and therefore, zero energy propagates in that direction.

So the question remains: What happens to the energy in those two rearward-traveling cancelled waves? Melles-Griot says the energy is not lost and instead appears as enhanced intensity in the forward-traveling wave. From rearward-traveling energy to forward-traveling energy certainly sounds like a direction reversal to me.

"Enhanced Intensity" is another name for constructive interference and in a matched system, it is "total constructive interference". "Complete Wave Cancellation" is another name for "total destructive interference".

Bottom line: In a Z0-matched system, the reflected energy flows rearward to the Z0-match point, changes direction at the Z0-match point (because of interference), and joins the forward energy wave flowing toward the load.

Anyone got a better word than "re-reflected" to describe that event?
From looking at a diagram of laser light encountering a perfect 1/4WL thin-film coating on glass, it is apparent that all the rearward-traveling reflected irradiance (power) encounters a conjugate "mirror" and joins the forward-traveling energy wave.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4085. Re: T-Line reflections Was: Lossless Resistance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 22:58:05 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40539236_3@corp.newsgroups.com>
Source record: 98457

Walter Maxwell wrote:
> In a stub constructed of lossless material the only current that flows in the
> stub is that required to bring it up to the steady statecondition.
>
> In a practical stub with attenuation current flows into the stub continually,
> but only that sufficient to compensate for the loss due to attenuation to retain
> it's steady state condition.

All that is true for *NET* current, Walt. But a full magnitude of forward and reflected current is flowing in and out of the mouth of the stub. All of the reflections in a stub occur at the shorted end. What happens at the mouth of the stub is superposition and interference, not reflection. The forward and reflected voltages superpose (in phase) to a high net value and the forward and reflected currents superpose (out of phase) to a low net value.

(|Vfwd|+|Vref|)/(|Ifwd|-|Iref|) = very high V/I ratio = very high impedance, but that high impedance is an effect and not the cause of anything (except arguments on r.r.a.a :-)

Inside the stub, Vfwd/Ifwd = Z0 and Vref/Iref = Z0

Anyone can prove this to himself. Install a wattmeter 1/8WL down into the 1/4WL shorted stub. One will read high forward power and high reflected power. From those powers, one can actually calculate the forward and reflected voltages and currents at that halfway point within the stub given that halfway point is equal to 45 degrees.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4086. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 23:23:46 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <6KM4c.6130$uh.1093@fed1read02>
Source record: 98458

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:6mH4c.9281$oE1.5596@newssvr23.news.prodigy.com...
> From the 60s, after engr class
> ..
> the angle of the dangle ...
> is in constant proportion to the mass of the ass..
>
> and unfortunately I can't recall the rest..
> which might be the best...
> 73
> Hank WD5JFR

The angle of the dangle is proportional to the mass of the ass times the heat of the meat.

Ed
wb6wsn

4087. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-13 23:46:42 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40539d9a$1_3@corp.newsgroups.com>
Source record: 98459

Ed Price wrote:
> The angle of the dangle is proportional to the mass of the ass times the
> heat of the meat.

Whatever happened to the "cube of the root"?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4088. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 00:06:07 UTC
From: jgboyles@aol.com
Message-ID: <20040313190607.25024.00001324@mb-m07.aol.com>
Source record: 98460

>The angle of the dangle is proportional to the mass of the ass times the
>heat of the meat.

Oh well, in the early 1970's University of Alabama School of EE. It was:

The Angle of the Dangle is directly proportional to the Heat of the Meat, and
inversely proportional to the Fall of the Balls. I'm sorry.
73 Gary N4AST

4089. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 00:19:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c308ef$n60$1@titan.btinternet.com>
Source record: 98461

> Oh well, in the early 1970's University of Alabama School of EE. It was:
>
> The Angle of the Dangle is directly proportional to the Heat of the
Meat, and
> inversely proportional to the Fall of the Balls. I'm sorry.
> 73 Gary N4AST
==========
It's *I* who should be sorry. What have I started ?

Reg, G4FGQ

4090. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 00:28:32 UTC
From: jgboyles@aol.com
Message-ID: <20040313192832.25024.00001325@mb-m07.aol.com>
Source record: 98462

>It's *I* who should be sorry. What have I started ?

Comic relief Reg. The Angle of the Dangle brought memories. BTW thanks for
the inverted vee program.
73 Gary N4AST

4091. Re: 80 Meter Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 00:30:27 UTC
From: Winston <win@here.com>
Message-ID: <hn9750hih3icnfskaf68c5ljodf3dj4e5c@4ax.com>
Source record: 98463

Cecil, I failed to say that it is a Carolina Windom. Would the
vertical radial alter the pattern significantly. The antenna runs East
and West with the long arm to the West.

Thnaks, Win w0lz

On Sat, 13 Mar 2004 15:49:35 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Winston wrote:
>> I put up a 133 ft Windom at 40 feet to operate some CW on the lower
>> bands during the down cycle. It seems, on 40 Mtrs, I am getting
>> great reports to the north, MI and Canada, but lower reports to the
>> south. This thing can't have a front to back, can it? Can anyone
>> point me to some radiations patterns for the Windom?
>
>An off-center-fed dipole favors the hemisphere toward the long end.
>If the long part of the dipole is pointing North, you will get the
>best results in NE and NW directions. TOA on 40m is about 45 deg.

4092. Re: 80 Meter Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 01:23:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4053b44d_4@corp.newsgroups.com>
Source record: 98464

Winston wrote:
> Cecil, I failed to say that it is a Carolina Windom. Would the
> vertical radial alter the pattern significantly. The antenna runs East
> and West with the long arm to the West.

Yes, that *does* change things. The Carolina Windom is somewhat like the
original windom, i.e. the vertical feedline is designed to carry common
mode currents and therefore radiate. This antenna could probably be
modeled as an off-center-fed dipole with an extra conductor hanging
down but I don't know which side the coax braid is connected to.
Do you know? Is the coax braid connected to the long side or the
short side?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4093. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 02:01:46 UTC
From: richardharrison@webtv.net
Message-ID: <28481-4053BD0A-3@storefull-3254.bay.webtv.net>
Source record: 98466

Gary, N4AST wrote:
"The Angle of the Dangle brought memories."

My memory has not been acute in recent days, but my recollection is that the angle of the dangle is inversely proportional to the heat of the meat provided the mass of the ass is a constant. (A hottie reduces the dangle).

Best regards, Richard Harrison, KB5WZI

4094. Radials Under a Botail Curtain or Half Square

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 02:04:03 UTC
From: snowden@peoplepc.com
Message-ID: <c1f2772b.0403131804.20a60ff6@posting.google.com>
Source record: 98465

Seeing posts that radials are required for good performance on these antennas,
I assume you would need to put radials under each vertical wire? Not just the fed element?

Doug

4095. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 02:26:09 UTC
From: charlie <charles_in_charge@nospam.com>
Message-ID: <4053C2BF.604DB613@nospam.com>
Source record: 98467

> Like the flux capacitor.

>
> Unless there are the inevitable technological advances in BPL.

4096. WTB:2 Meter Duplexers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 02:31:17 UTC
From: Charlie <okiemansc@yahoo.com>
Message-ID: <RtP4c.93268$Bz3.28034@okepread05>
Source record: 98468
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

Small ham club in the midwest is looking to buy a set of 2 meter
duplexers. Prefer 4 or 6 cavity. MIN: 65 db rejection @ 600 kHz. No mobile
duplexers please.
Please state price,condition and location.
THANKS,
...Charlie...

4097. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 02:39:14 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <idh7505fn91jieaiak4viu512s4u7nhtpj@4ax.com>
Source record: 98369

On 14 Mar 2004 00:06:07 GMT, jgboyles@aol.com (JGBOYLES) wrote:

>>The angle of the dangle is proportional to the mass of the ass times the
>>heat of the meat.
>
>Oh well, in the early 1970's University of Alabama School of EE. It was:
>
> The Angle of the Dangle is directly proportional to the Heat of the Meat, and
>inversely proportional to the Fall of the Balls. I'm sorry.
>73 Gary N4AST

The cube of the boob should be in there somewhere too.

Russ

4098. Re: 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 03:17:47 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403131917.4fe688bf@posting.google.com>
Source record: 98370

9
Tho coupling was used for IF circuitry in the late thirties to
achieve
high Q it was more than 40 years before coupling made an appearance on
a macro
scale on the transmission side. On warships it obviously essential
that transmission were clean but on large ships there were many
structures that would reradiate a signal using energy from a
transmitter. It was found that if a loop was placed near such
structures energy would pass between the structure
and the loop circuit via back EMF such that via coupling the now
parallel circuit would move the offending signal(See ARRL
antenna/handbook)
.Around this time the loop anteena made an appearance where a short
element was end fed an placed close to a loop containing a capacitor.
Again EMF was at work where two frequencies could be made one and
where a slight change in the loop curcuit allowed the combined
frequency to be moved.
At the same time Moxon introduced what was called the disappearing
inductance
(antennas for all locations) where he fed a normal dipole instead of a
short member as in a loop antenna and placed it in close proximity to
a loop circuit.
In this case tight coupling was required for a single frequency
emmision such that the loop
became a physical part of the dipole even tho two circuits remained.
Again the capacitor in the loop allowed resonant transmissions over
at least an octave Art took this further by close coupling more loop
dipole elements in yagi beam form. Art became more interested in the
single element form because the combination loop dipole could supplant
the traditional trapped dipole but with the realisation that more gain
could be attained because the radiation was of collinear form and thus
looked for different ways of feeding the dipole combination instead of
a delta feed.
It was at this point that Art
made the loop in ladder form since frequency span depended on the
loops periphary as well as changing the feed to one of a coupled
circuit form.

More to come but special thanks to the earlier posters who added more
insight
to the values of Q.
Let the attack commence
Art

i

i

4099. Re: 80 Meter Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 03:56:19 UTC
From: Winston <win@here.com>
Message-ID: <b5l7509cakn77eojb885nd4r475j63asf2@4ax.com>
Source record: 98371

I cant tell, Cecil. The vertical feedline connects via a PL connector into a balum. I'm not sure it is a balum. It just looks like a balum. There is what looks like a second balum at the bottom of the feed line, PL connectors at both ends, and then 70 feet of RG-8. Maybe the first balum is a 4 to1 and the second a 1 to 1.Bought it from Radio World. Actually I am very pleased with it. I just wondered why most of my contacts are in the same area, to the North.

Win w0lz

On Sat, 13 Mar 2004 19:23:33 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Winston wrote:
>> Cecil, I failed to say that it is a Carolina Windom. Would the
>> vertical radial alter the pattern significantly. The antenna runs East
>> and West with the long arm to the West.
>
>Yes, that *does* change things. The Carolina Windom is somewhat like the
>original windom, i.e. the vertical feedline is designed to carry common
>mode currents and therefore radiate. This antenna could probably be
>modeled as an off-center-fed dipole with an extra conductor hanging
>down but I don't know which side the coax braid is connected to.
>Do you know? Is the coax braid connected to the long side or the
>short side?

4100. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 05:18:19 UTC
From: tdonaly@aol.com
Message-ID: <20040314001819.20524.00001546@mb-m28.aol.com>
Source record: 98372

```
Cecil wrote,
>
>Ed Price wrote:
>> The angle of the dangle is proportional to the mass of the ass times the
>> heat of the meat.
>
>Whatever happened to the "cube of the root"?
>--
>73, Cecil http://www.qsl.net/w5dxp
>

There's a lot more, but, mercifully, everyone's forgotten it.
73,
Tom Donaly, KA6RUH
```

4101. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 08:47:41 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <N_U4c.6188$uh.4079@fed1read02>
Source record: 98373

"Russ" <carlzomer@hotmail.com> wrote in message
news:idh7505fn91jieaiak4viu512s4u7nhtpj@4ax.com...
> On 14 Mar 2004 00:06:07 GMT, jgboyles@aol.com (JGBOYLES) wrote:
>
> >>The angle of the dangle is proportional to the mass of the ass times the
> >>heat of the meat.
> >
> >Oh well, in the early 1970's University of Alabama School of EE. It was:
> >
> > The Angle of the Dangle is directly proportional to the Heat of the
Meat, and
> >inversely proportional to the Fall of the Balls. I'm sorry.
> >73 Gary N4AST
>
> The cube of the boob should be in there somewhere too.
>
> Russ

Unfortunately, these analog rules of thumb have been forgotten in this age
of digital stimulation.

Ed
wb6wsn

4102. Re: 80 Meter Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 11:16:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40543f48$1_6@corp.newsgroups.com>
Source record: 98374

Winston wrote:
> I cant tell, Cecil. The vertical feedline connects via a PL connector
> into a balum. I'm not sure it is a balum. It just looks like a balum.
> There is what looks like a second balum at the bottom of the feed
> line, PL connectors at both ends, and then 70 feet of RG-8. Maybe the
> first balum is a 4 to1 and the second a 1 to 1.Bought it from Radio
> World. Actually I am very pleased with it. I just wondered why most
> of my contacts are in the same area, to the North.

Could be the top device is a 4:1 voltage balun which doesn't balance
the currents and that's why the vertical feedline radiates. The bottom
device is probably a 1:1 choke.

The slope of the land at my QTH favors Westward radiation. Perhaps that
is what you are experiencing.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4103. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 13:39:19 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <psOdndROu7sZ_cndRVn-jw@comcast.com>
Source record: 98375

Jack,

Have you determined that the radio is actually putting out 100W? The light bulb test should give some indication. When I first got licensed on HF I went through a bunch of antennas at less than 20 feet with essentially 0 results. For starters, unless you are DX, nobody will talk to you on 75 or 20 m SSB unless you are 5-9. I made my first contact half way across the country on 15 m by using a 3 el 6 meter beam at 12 feet (In the attic of a 1 story house). Try getting out during a contest, but you really want to get the wire at least 30 feet up. I don't think you mentioned what the antenna is, or what bands you have tried.

Tam/WB2TT
"Jack Twilley" <jmt+usenet@twilley.org> wrote in message
news:86ekryjwla.fsf@duchess.twilley.org...
> -----BEGIN PGP SIGNED MESSAGE-----
> Hash: SHA1
>
> >>>>> "Richard" == Richard Clark <kb7qhc@comcast.net> writes:
>
> Jack> What's the best way to find out for what bands (if any) my
> Jack> current antenna is best suited? Would something like the
> Jack> Antenna Analyzer II (http://www.amqrp.org/kits/antanal/) or the
> Jack> 'Tenna Dipper (http://4sqrp.com/kits/kits.htm) answer this
> Jack> question?
>
> Richard> These are toys when it comes to the grist of your question.
> Richard> No analyzer will answer what is best as that is a subjective
> Richard> issue. Further, an antenna has more characteristics than
> Richard> feed point Z which impact the nature of your enquiry far
> Richard> more.
>
> That's pretty much what I figured. I tried to provide a definition
> for best that was more objective than subjective.
>
> Richard> A low antenna that warms the ground will look like a charmer
> Richard> to the analyzer, but then so would your dummy load. Get the
> Richard> idea? You already anticipate this I am sure.
>
> Exactly. This is the same antenna that I've mentioned in the past,
> less than twenty feet off the ground and less than five feet from the
> house (which towers over the antenna by ten feet at its highest
> point).
>
> Richard> The old methods, prior to the invention of analyzers,

> Richard> encompassed a simple sanity/reality check with the field
> Richard> strength meter. Put one 100 wavelengths out and take a
> Richard> reading. Do the same with a buddy in town. The differences
> Richard> should be telling. This will reveal how much power has
> Richard> escaped the grip of loss.
>
> While I don't have a field strength meter, I do have a friend with a
> DC-to-daylight receiver. He was able to receive me loud and clear
> over a mile away. One hundred wavelengths would be twenty-four miles
> - -- if he had a real antenna, he'd be perfectly situated for that kind
> of test, but all he has is the whip that came with the receiver, so
> I'm not sure that's going to be a valid test.
>
> Richard> Repeat with a DX contact (you and your buddy working the same
> Richard> remote station).
>
> [... rest elided ...]
>
> Ahahahaha. Richard, I've worked a DX contact *once*. That was day
> one of the antenna's life, during the California QSO Party, when I
> logged a contact with a guy in Germany. I have trouble working people
> several towns over, and in fact have had only one QSO since the
> weekend the antenna was installed. This part of the test is a little
> optimistic.
>
> Richard> 73's Richard Clark, KB7QHC
>
> Thanks!
>
> Jack.
> - --
> Jack Twilley
> jmt at twilley dot org
> http colon slash slash www dot twilley dot org slash tilde jmt slash
> -----BEGIN PGP SIGNATURE-----
> Version: GnuPG v1.2.4 (FreeBSD)
>
> iD8DBQFAUXVFGPFSfAB/ezgRAt6eAKC2oX/dFOXKFNBixGsz7buhhr5GHgCfQqii
> ayP//zJd4QWzPt5RG+x1kWk=
> =zHNC
> -----END PGP SIGNATURE-----

4104. Anybody tried one of these antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 13:47:26 UTC
From: Va4ua <va4ua@valleynet.com>
Message-ID: <40546269$0$4227$afc38c87@news.optusnet.com.au>
Source record: 98376

I was think of getting one of these.

http://www.dxantennas.com/wst_page5.php

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.593 / Virus Database: 376 - Release Date: 21/02/2004

4105. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 14:26:12 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <8YZ4c.9452$bQ5.3191@newssvr23.news.prodigy.com>
Source record: 98377

Well after all the interest I googl;ed and there's more than I can handle...
Sorry Reg, but when I saw the title I couldn't resist...
Was this little ditty common across the pond?
Take a look..
http://www.google.com/search?hl=en&lr=&ie=UTF-8&oe=UTF-8&q=%22angle+of+the+dangle%22+mass+cube

73
Hank WD5JFR

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:6mH4c.9281$oE1.5596@newssvr23.news.prodigy.com...
> From the 60s, after engr class
> ..
> the angle of the dangle ...
> is in constant proportion to the mass of the ass..
>
> and unfortunately I can't recall the rest..
> which might be the best...
> 73
> Hank WD5JFR
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:c2ufri$i3d$1@hercules.btinternet.com...
> > To fit your your new Inverted-V into your back yard with maximum
> efficiency,
> > download program INV_VEE from website below and vary the dangle-angle.
> > Includes best match for 50 or 75 ohms, or what have you? And feedline
> > performance.
> > ----
> > ....
> > Regards from Reg, G4FGQ
> > For Free Radio Design Software go to
> > http://www.btinternet.com/~g4fgq.regp
> > ....
> >
> >
>
>

4106. Re: Anybody tried one of these antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 15:16:20 UTC
From: Dave <noone@nowhere.com>
Message-ID: <KPadncieOOna6sndRVn-uQ@crocker.com>
Source record: 98378

you want to buy one, i'll sell you one for 1/2 that price! but you could build it for even less than that with wire from a local home store and a hunk of coax from wherever is best for you.

"Va4ua" <va4ua@valleynet.com> wrote in message news:40546269$0$4227$afc38c87@news.optusnet.com.au...
> I was think of getting one of these.
>
> http://www.dxantennas.com/wst_page5.php
>
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.593 / Virus Database: 376 - Release Date: 21/02/2004
>
>

4107. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 16:04:20 UTC
From: "Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET>
Message-ID: <10590khru3f77d0@corp.supernews.com>
Source record: 98379

Dave,

I have a full-wave horizontal loop on 30m and a multi-band vertical for 40 - 10 (1/4 wave on 30m). The vertical is 10 feet off the ground, the loop is at 40 feet. For "local" stuff (within several hundred miles) the loop is better. For DX, the vertical beats the loop every time.

Try a 1/4 wave ground plane and see how it works.

-larry
K8UT

"KC1DI" <kc1di@arrl.net> wrote in message
news:jt46509rvejoqtg6n1vs18qsj2udasv1sf@4ax.com...
> Just curious as to what most of you are using as an antenna on
> the 30 Meter band?
>
> I've used many and was just wondering if i could improve my overall DX
> performance with something other than a Dipole. With out going to the
> expense of a Beam.
>
> 73 Dave
>

4108. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 16:19:02 UTC
From: Jim Leder <k8cxm@hotmail.com>
Message-ID: <405485f1$0$49453$a04e5680@nnrp.fuse.net>
Source record: 98380

I have been using what I call my '$8.48 Home Depot Vertical'. That's what the parts cost and it gives me both 40 and 30. It's a simple wire 1/4 wave vertical for each band separated be PVC spreaders and it hangs from a tree to a ground rod at the bottom. I have 8 16 foot radials around it (more in the spring when the ground isn't frozen, probably up to 16). It has been very effective on 30, better than the dipole I used prior to it. Performance on 40 is OK. I am thinking of adding a 20 meter section. I have no problem working DX with it on 30 or 40. Best thing I've tried on 30 so far.

"KC1DI" <kc1di@arrl.net> wrote in message
news:jt46509rvejoqtg6n1vs18qsj2udasv1sf@4ax.com...
> Just curious as to what most of you are using as an antenna on
> the 30 Meter band?
>
> I've used many and was just wondering if i could improve my overall DX
> performance with something other than a Dipole. With out going to the
> expense of a Beam.
>
> 73 Dave
>

4109. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 17:23:51 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403140923.44df5427@posting.google.com>
Source record: 98381

"Ed Price" <edprice@cox.net> wrote in message news:<6wH4c.5720$uh.5339@fed1read02>...
> >
>
> You don't need to pump power to measure antenna patterns. A simple signal
> generator with a milliwatt or so will work fine. If you want to be really
> serious about designing antennas, then you need to start acquiring serious
> tools. See eBay; start bidding on a sig gen, some pads (attenuators), a
> rotor, a field strength meter.
>
> Ed

I've got an MFJ antenna analyzer, which is somewhere around 1 mW
or so.

If i calibrate my RF sniffer correctly, i think i can get a pretty
accurate plot, accurate enough for my purposes.

Slick

4110. Stacking antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 17:28:12 UTC
From: Mark Atanovich <m.atanovich@cox.net>
Message-ID: <RC05c.15335$Nj.7374@fed1read01>
Source record: 98382

Greetings,
I currently have a Channel Master 4248 UHF antenna and Winegard AP8700 (selectable FM trap) preamp mounted on a 20 ft. mast. I'd like to add an FM antenna (I'm looking at an Antennacraft FM6), hopefully using the same tower, but knowing enough to know I don't know anything have some questions of questions about this arrangement.

1) I know there are rules of thumb about spacing/stacking antennas, but what are the basic interactions that take place between different antennas that at least to my understanding, are pretty much tuned for mutually exclusive frequencies?

2) Are there certain frequencies that are more likely to be negatively affected by this arrangement? I'm most worried about a DTV station broadcasting on UHF channel 56 (~750 MHz) that I sometimes have trouble receiving depending on atmospheric conditions.

3) Would it be OK to combine the signals prior to the preamp or should I simply avoid any potential phasing problems and engage the FM trap on the preamp and hook up the FM antenna downstream? I've got about a 100' of RG6 between the antennas and my equipment so it seems the loss in the 100 MHz range should be negligible.

Any help understanding this better would be greatly appreciated.

Mark

4111. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 17:30:19 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403140930.5cadda59@posting.google.com>
Source record: 98383
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:<Xc-dnQZfzYSA187dRVn-gQ@comcast.com>...
> Slick,
>
> The only thing about making the 48 inch mast non resonant is what's on the
> other end of it? A ceramic insulator is not the same as a Radio Shack steel
> house bracket. Since it is behind the first reflector, probably doesn't
> matter in the real world.
>

Tam,

The 48 inches refers to it's position relative to the DE, not it's
actually length, which in the ideal case would be at a non-resonant
length. The yagi optimizer program i have shows that the length does
indeed affect the propagation pattern.

I'm not certain how the user has the mast mounted, but it's
somewhere around 7.5 feet or so in length.

At any rate, he is getting out very well!

Err...i won't say at what wattage, someone might faint out there!

hahaha!

Slick

4112. Re: WTB:2 Meter Duplexers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 18:05:56 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <1915c.2887$rQ.1210@lakeread04>
Source record: 98384
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

"Charlie" <okiemansc@yahoo.com> wrote in message
news:RtP4c.93268$Bz3.28034@okepread05...
> Small ham club in the midwest is looking to buy a set of 2 meter
> duplexers. Prefer 4 or 6 cavity. MIN: 65 db rejection @ 600 kHz. No mobile
> duplexers please.
> Please state price,condition and location.
> THANKS,
> ...Charlie...
>
>

Charlie

I'd shoot for a bit more than -65 dB. A good Sinclair notch duplexer
can easily exceed -95 at 600 kHz spacing. I wouldn't good for much
less than -85 dB on a two meter system.

Pete k1zjh

4113. figure out this one

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 18:06:08 UTC
From: Dave <noone@nowhere.com>
Message-ID: <vvednQtl6uyOAsndRVn-ug@crocker.com>
Source record: 98385

starting with this antenna:
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3084820450&category=48692

if it was fed with its rated power what would be the voltage at the base?
at the top? measured between your ears if you were 5' away?

if it were being driven at the peak power output of the last amp in the
bottom table on this page: http://www.davemade.com/mobile.htm which part
would melt down first? and once it did melt down what would be the peak
voltage on the feedline?

4114. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 18:25:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c32837hrc1@titan.btinternet.com>
Source record: 98386

I have only a very vague impression of ever hearing the phrase "Dangle Angle" in connection with nothing I can recall. I used it to describe the angle by which the ends of a an inverted-V dangled towards the ground just because it sounded amusing. And so it seems it was.

Does it account for the abysmal standards of education of the present generation of engineers and scientists? ;o)

Reg.

> Was this little ditty common across the pond?
> Take a look..
>
http://www.google.com/search?hl=en&lr=&ie=UTF-8&oe=UTF-8&q=%22angle+of+the+dangle%22+mass+cube

4115. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 18:29:33 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4054a4c8$1_4@corp.newsgroups.com>
Source record: 98387

KC1DI wrote:
> Just curious as to what most of you are using as an antenna on
> the 30 Meter band?

My 130 ft. center-fed dipole has an interesting pattern on 30m. It's main lobes are broadside with a gain of 9 dBi, a TOA of 34 deg, and a horizontal beamwidth of 33 deg. Off the ends, the gain is 3 dBi with a horizontal beamwidth of 60 deg. In other words, it has gain over a ground mounted quarter-wave monopole in 4 directions for more than 180 degrees of the horizontal.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4116. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 18:35:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4054a622_4@corp.newsgroups.com>
Source record: 98388

Reg Edwards wrote:
> Does it account for the abysmal standards of education of the present
> generation of engineers and scientists? ;o)

That and: Bad Boys Rape Young Girls But Violet Gives Willingly.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4117. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 18:59:27 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4054abcb_6@corp.newsgroups.com>
Source record: 98389

KC1DI wrote:
> Just curious as to what most of you are using as an antenna on
> the 30 Meter band?

Actually, my all time favorite antenna is a 40m loop closely coupled
for supergain. It has 20 dBi gain for 200 degrees of the horizontal.
It would make my 100 watt transceiver sound like about 10 kilowatts
and could be scaled for 30m but watch out for complaints that you are
running illegal power. The EZNEC file can be downloaded from my web
page below. (TIC disclaimer)
--
73, Cecil http://www.qsl.net/w5dxp/SUPRGAIN.EZ

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4118. Re: 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 19:35:43 UTC
From: richardharrison@webtv.net
Message-ID: <22251-4054B40F-85@storefull-3253.bay.webtv.net>
Source record: 98390

Art, KB9MZ wrote:
"---special thanks to the earlier posters who added more insight to the values of Q."

Art`s posting is a misrepresentation of the way antennas work in my opinion. Q of an antenna from an impedance standpoint is related to how narrow its bandwidth is over a small frequency range. Its Q at resonance is:

2 pi x total energy stored by antenna / energy dissipated per cycle.

Attempts to maximize gain while minimizing size of an antenna generally reduce its bandwidth while also reducing its radiating efficiency. See "Antennnas" by Kraus, 1950, pages 433-434.

Coupling is another word for mutual impedance. The mutual impedance between two antennas is defined by:

Z12 = E2/I1.

This is the ratio of the voltage induced in antenna #2 by the current in antenna #1. See Terman`s 1955 edition page 894 for details.

Antennas or elements of arrays can be coupled and must be if a parasitic array is to be effective. Spacing and tuning of the elements is essential to performance. Unless elements are near resonance, reactance is too high for significant current flow. Also, which side of resonance parasitic elements are tuned to determines which direction radiation will be reinforced in and in which direction radiation from the direct radiator and re-radiation from the parasite will tend to cancel.

Terman says on page 905 of his 1955 edition:
"The exact effect on the directional pattern that is produced depends upon the magnitude and phase of the induced current, i.e., upon the spacing of the antennas and upon the tuning of the parasitic antenna. For example, if the driven and parasitic antennas are relatively close together and parallel, then the current induced in the parasitic antenna will be such as to reduce the strength of the radiation in the direction of the parasitic antenna when the latter is resonant at a lower frequency than that being transmitted. If resonant at a higher frequency than is being transmitted, the parasitic antenna acts as a "director" and tends to concentrate the radiated field in its direction."

The information above all came from books by famous authors. We can`t and don`t live long enough to make all the mistakes for ourselves.

Best regards, Richard Harrison, KB5WZI

4119. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 21:49:39 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <868yi39k0c.fsf@duchess.twilley.org>
Source record: 98391

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Tam" == t-tammaru <Tam> writes:

Tam> Jack, Have you determined that the radio is actually putting out
Tam> 100W? The light bulb test should give some indication.

I have an MFJ Versa Tuner II which has a power meter. It's not
laboratory certified, but the needle does go all the way up to 100
when I tune up and transmit.

Tam> When I first got licensed on HF I went through a bunch of
Tam> antennas at less than 20 feet with essentially 0 results. For
Tam> starters, unless you are DX, nobody will talk to you on 75 or 20m
Tam> SSB unless you are 5-9.

This disappoints me, and I really hope it's not true.

Tam> I made my first contact half way across the country on 15 m by
Tam> using a 3 el 6 meter beam at 12 feet (In the attic of a 1 story
Tam> house). Try getting out during a contest, but you really want to
Tam> get the wire at least 30 feet up. I don't think you mentioned
Tam> what the antenna is, or what bands you have tried.

I can't get the wire any higher than it is right now at this current
location. This is pretty much the best I can do, and this little
antenna already totally fills my yard and the yards of each of my
neighbors (with their permission). It's a multiband fan dipole with
three pairs of legs, cut for 40, 20, and 10.

My current goal is to acquire a noise bridge and see where the antenna
resonates, then trim the antenna as necessary until it resonates in
the right places. After that, I'll look into feedline length
modifications as necessary. Hopefully those two approaches will
resolve my current issue.

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAVNN4GPFSfAB/ezgRAiGkAKDMq+67zZp4MIp8hqcgHPfT7MwVoACfQKKu
/bErYRkiIqpODtXG7DDEuGc=

```
=Jm0J
-----END PGP SIGNATURE-----
```

4120. Re: figure out this one

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 22:32:06 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040314173206.01774.00001512@mb-m22.aol.com>
Source record: 98393

You talking dead key ?

4121. hf antenna for car

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 22:32:18 UTC
From: bruceandkarla@ziggycom.net
Message-ID: <7192d525.0403141432.5bc0ec04@posting.google.com>
Source record: 98394

Iam getting ready to put a icom-706 in my car
and would like some input on what antenna to use.

4122. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 22:32:19 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4054ddac_4@corp.newsgroups.com>
Source record: 98395

Ralph Mowery wrote:

> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote;
>>That and: Bad Boys Rape Young Girls But Violet Gives Willingly.
>
> You left out Our (orange).

.... 90% is not bad for a senile old man. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4123. Re: figure out this one

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 22:38:37 UTC
From: Dave <noone@nowhere.com>
Message-ID: <hpGdnTNQpuZsQ8ndRVn-ug@crocker.com>
Source record: 98396

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message
news:20040314173206.01774.00001512@mb-m22.aol.com...
> You talking dead key ?

of course not, 150% overdriven AM with roger beep and big echo box!

4124. Re: hf antenna for car

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 22:44:53 UTC
From: Incognito <BLB@sero.net>
Message-ID: <Ff55c.15435$Nj.9854@fed1read01>
Source record: 98397

Lots of choices -- see URL:
http://ac6v.com/antdealer.htm#MOBILE

Screwdriver type antennas are popular

For low cost -- Hamsticks

Also See eHam reviews URL: http://www.eham.net/reviews/products/12

--
Incognito By Necessity (:-(

If you can't convince them, confuse them.
- - -Harry S Truman

"Bruce" <bruceandkarla@ziggycom.net> wrote in message
news:7192d525.0403141432.5bc0ec04@posting.google.com...
> Iam getting ready to put a icom-706 in my car
> and would like some input on what antenna to use.

4125. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 22:59:56 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <nOKdndjb--yqS8ndRVn-vw@ctc.net>
Source record: 98392

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4054a622_4@corp.newsgroups.com...
> Reg Edwards wrote:
> > Does it account for the abysmal standards of education of the present
> > generation of engineers and scientists? ;o)
>
> That and: Bad Boys Rape Young Girls But Violet Gives Willingly.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

You left out Our (orange).

4126. Re: Anybody tried one of these antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 23:02:06 UTC
From: varty <Smartbart@voodoonet.com>
Message-ID: <4054e46e$0$31903$afc38c87@news.optusnet.com.au>
Source record: 98398

I bought one 3 months ago and I would have to say that it is the best wire antenna that I have ever used.

"Dave" <noone@nowhere.com> wrote in message
news:KPadncieOOna6sndRVn-uQ@crocker.com...
> you want to buy one, i'll sell you one for 1/2 that price! but you could
> build it for even less than that with wire from a local home store and a
> hunk of coax from wherever is best for you.
>
> "Va4ua" <va4ua@valleynet.com> wrote in message
> news:40546269$0$4227$afc38c87@news.optusnet.com.au...
> > I was think of getting one of these.
> >
> > http://www.dxantennas.com/wst_page5.php
> >
> >
> >
> >
> > ---
> > Outgoing mail is certified Virus Free.
> > Checked by AVG anti-virus system (http://www.grisoft.com).
> > Version: 6.0.593 / Virus Database: 376 - Release Date: 21/02/2004
> >
> >
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.622 / Virus Database: 400 - Release Date: 13/03/2004

4127. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 23:04:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o1p9505qeceeimglsdl8qc508f19je2336@4ax.com>
Source record: 98399

On Sun, 14 Mar 2004 16:32:19 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Ralph Mowery wrote:
>
>> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote;
>>>That and: Bad Boys Rape Young Girls But Violet Gives Willingly.
>>
>> You left out Our (orange).
>
>.... .. .. 90% is not bad for a senile old man. :-)
You also forgot Gold, Silver, none

60% signs of Creeping senility?

4128. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 23:41:49 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <1565c.38607$aT1.23347@newsread1.news.pas.earthlink.net>
Source record: 98400

30m should certainly be well within the range of the "universal"
dipole design.

Presumably the gain/beamwidth numbers you quote come out of
a model. For completeness, what does the model say the average
gain is in the OTHER 180 degrees (the nulls)?

73, Ed

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4054a4c8$1_4@corp.newsgroups.com...
> KC1DI wrote:
> > Just curious as to what most of you are using as an antenna on
> > the 30 Meter band?
>
> My 130 ft. center-fed dipole has an interesting pattern on 30m. It's
> main lobes are broadside with a gain of 9 dBi, a TOA of 34 deg, and
> a horizontal beamwidth of 33 deg. Off the ends, the gain is 3 dBi
> with a horizontal beamwidth of 60 deg. In other words, it has gain
> over a ground mounted quarter-wave monopole in 4 directions for more
> than 180 degrees of the horizontal.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

4129. DFing info wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-14 23:43:55 UTC
From: thatcher <thatc4@net.com>
Message-ID: <c32qn701a1n@enews3.newsguy.com>
Source record: 98401

I bought a ELK log periodic dual band antenna. VHF/UHF 5 elements.

What are some good DFing techniques?

How much distance should be between my body and the antenna?

This ELK antenna is fed near the reflector. Whats up with that?

It says it has 20 db of front to back but I sure can't see too much
difference while pointing and not pointing at repeaters.

Where is a good place to get attenutors.

Should I have bought a different antenna for DFing?

4130. GAP Super C - For Real ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 00:16:23 UTC
From: "GE Lewis, Sr." <gelewis@houston.rr.com>
Message-ID: <t6s9509ivk5llrv00dunkd60v8q3713aed@4ax.com>
Source record: 98402

I wonder if anyone has any experience with this antenna? How much
does it cost anyway? Seems too good go be true...

Thanks,
KB5Q

4131. Re: Be the first on your block!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 00:31:57 UTC
From: Stormhound <storm.nospam.hound@nocomcastspam.net>
Message-ID: <6aWdnSCHkqjtZMndRVn-gQ@comcast.com>
Source record: 98403
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna

Barry OGrady wrote:

> What needs to be weighed up is the cost/benefit ratio.
> If BPL can benefit a huge number of people while inconveniencing a few amateurs
> then it is justified. Remember that amateur radio is a hobby that unjustifiably occupies
> valuable radio spectrum.

Yeah, that's exactly the problem we face (well, that and a lack of appreciation for irony, judging by some of the responses I'm seeing to your post)...non-hams, including a lot of businesspeople involved in lines that are looking for more frequencies to use, look at it from just that perspective: hamming is a fringe hobby that eats up valuable spectrum and provides nothing to the average person that they can't already get from the Internet. That's the superficial sound-byte opinion, and people won't invest much time in trying to get beyond that. One can only educate those who want to be educated...

73, David KC0EKV

4132. Re: 40m full wave NVIS loop - mulitband use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 00:37:59 UTC
From: billybeeper@juno.com
Message-ID: <1e4e3692.0403141637.108a9029@posting.google.com>
Source record: 98404

Bob Bob <bcnntp@optusnet.com.au> wrote in message
news:<405366C7.6050000@optusnet.com.au>...
> Hi All
>
> I want to get some ideas on how to feed my horiz 40M loop (NVIS) for
> harmonics of 7Mhz. It is sufficiently low to the ground that the feed Z
> is close to 50r (which makes 14Mhz - 100r, 21Mhz - 150r amd 28MHz - 200r)
>
> I realise that the radiation pattern may nit be desirable. Space is kind
> of limited here and stealth is important
>
> I want it to be "no tune/no ATU" and to avoid switching things in and
> out. It is currently fed directly with coax and a 1:1 ferrite balun. I
> cant use open wire feeder back to the TX (needing at least 10M of coax)
>
> Cheers Bob VK2YQA
>
> (bcnntp doesnt exist. If important use bcnoop)

Bob, consider the terminated folded dipole.

http://www.cebik.com/wbfd.html

and

http://www.bwantennas.com/ama/amaindex.htm

4133. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 00:56:37 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <jOadndp095TdYsnd4p2dnA@comcast.com>
Source record: 98405

Jack,

Just some comments. I think you have the right kind of antenna with the fan dipoles. You say it is lower than the house; can't you prop up at least some of it to the height of the house, or a couple of feet more. Have you determined that the radio puts out the same power on SSB (whistle) as when you tune up (on CW?) ?

I made most of my early contacts during contests, by answereing calls from people who did not have big pileups. If they hear you, they will come back to you. I did get my SSB DXCC with a Junior beam at 28 feet.

To trim a multiple dipole like yours, you have to trim the lowest frequency first, and work your way up. I have a 40/17/12 antenna like that, and this is the only way I got it to convege in EZNEC.

Tam/WB2TT
"Jack Twilley" <jmt+usenet@twilley.org> wrote in message
news:868yi39k0c.fsf@duchess.twilley.org...
> -----BEGIN PGP SIGNED MESSAGE-----
> Hash: SHA1
>
> >>>>> "Tam" == t-tammaru <Tam> writes:
>
> Tam> Jack, Have you determined that the radio is actually putting out
> Tam> 100W? The light bulb test should give some indication.
>
> I have an MFJ Versa Tuner II which has a power meter. It's not
> laboratory certified, but the needle does go all the way up to 100
> when I tune up and transmit.
>
> Tam> When I first got licensed on HF I went through a bunch of
> Tam> antennas at less than 20 feet with essentially 0 results. For
> Tam> starters, unless you are DX, nobody will talk to you on 75 or 20m
> Tam> SSB unless you are 5-9.
>
> This disappoints me, and I really hope it's not true.
>
> Tam> I made my first contact half way across the country on 15 m by
> Tam> using a 3 el 6 meter beam at 12 feet (In the attic of a 1 story
> Tam> house). Try getting out during a contest, but you really want to
> Tam> get the wire at least 30 feet up. I don't think you mentioned
> Tam> what the antenna is, or what bands you have tried.
>
> I can't get the wire any higher than it is right now at this current

> location. This is pretty much the best I can do, and this little
> antenna already totally fills my yard and the yards of each of my
> neighbors (with their permission). It's a multiband fan dipole with
> three pairs of legs, cut for 40, 20, and 10.
>
> My current goal is to acquire a noise bridge and see where the antenna
> resonates, then trim the antenna as necessary until it resonates in
> the right places. After that, I'll look into feedline length
> modifications as necessary. Hopefully those two approaches will
> resolve my current issue.
>
> Jack.
> - --
> Jack Twilley
> jmt at twilley dot org
> http colon slash slash www dot twilley dot org slash tilde jmt slash
> -----BEGIN PGP SIGNATURE-----
> Version: GnuPG v1.2.4 (FreeBSD)
>
> iD8DBQFAVNN4GPFSfAB/ezgRAiGkAKDMq+67zZp4MIp8hqcgHPfT7MwVoACfQKKu
> /bErYRkiIqpODtXG7DDEuGc=
> =Jm0J
> -----END PGP SIGNATURE-----

4134. Re: hf antenna for car

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 02:20:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40551313_2@corp.newsgroups.com>
Source record: 98406

Bruce wrote:
> Iam getting ready to put a icom-706 in my car
> and would like some input on what antenna to use.

What do you want your antenna to do? I am happy with a
High Sierra Screwdriver.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4135. Re: figure out this one

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 02:24:40 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Ht85c.7364$uh.5324@fed1read02>
Source record: 98407

"Dave" <noone@nowhere.com> wrote in message
news:vvednQtI6uyOAsndRVn-ug@crocker.com...
> starting with this antenna:
>
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3084820450&category=48692
>
> if it was fed with its rated power what would be the voltage at the base?
> at the top? measured between your ears if you were 5' away?

We could only hope for a rapid vaporization of cranial fluids.

Ed
wb6wsn

4136. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 02:26:08 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4055147a$1_2@corp.newsgroups.com>
Source record: 98408

Old Ed wrote:

> 30m should certainly be well within the range of the "universal"
> dipole design.
>
> Presumably the gain/beamwidth numbers you quote come out of
> a model. For completeness, what does the model say the average
> gain is in the OTHER 180 degrees (the nulls)?

60 degrees of the horizontal coverage falls below the typical
1/4WL ground-mounted monopole - not a bad tradeoff, IMO.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4137. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 02:28:30 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <gx85c.7392$uh.6821@fed1read02>
Source record: 98409

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4054a622_4@corp.newsgroups.com...
> Reg Edwards wrote:
> > Does it account for the abysmal standards of education of the present
> > generation of engineers and scientists? ;o)
>
> That and: Bad Boys Rape (Our) Young Girls But Violet Gives Willingly.

...for Silver or Gold.

Come on Reg, they don't give it up just for an elucidation of the conjugate
match!

Ed
wb6wsn

4138. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 02:38:23 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40551758$1_2@corp.newsgroups.com>
Source record: 98410

Richard Clark wrote:
> You also forgot Gold, Silver, none

That wasn't part of the saying in the 50's at Texas A&M.
I suspect it was mostly "none" in those days. I remember
sifting through a pile of resistors with an ohm-meter
looking for one more accurate than 10%.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4139. Re: Radials Under a Botail Curtain or Half Square

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 03:15:23 UTC
From: David L Thompson <thompson@mindspring.com>
Message-ID: <fd95c.3781$GQ3.1171@newsread3.news.atl.earthlink.net>
Source record: 98411

If the Bob-Tail or half square is fed at the top then W4RNL calls them independent of ground. Go to his web page and see his facts. If its a traditional bob-tail as W6BCX envisioned and fed at the bottom of the center element and then to ground then a good ground radial system is required. I have a half square on 80 that runs E and W and is therefore broadside N/S the ends are 20 and 30 feet off the ground. No radials required.

The half square is a bob-tail and the bob-tail you see literature is really a 3 el version.
73 Dave K4JRB

Doug <snowden@peoplepc.com> wrote in message news:c1f2772b.0403131804.20a60ff6@posting.google.com...
> Seeing posts that radials are required for good performance on these
> antennas,
> I assume you would need to put radials under each vertical wire? Not
> just the fed element?
>
>
> Doug

4140. Re: Anybody tried one of these antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 03:28:01 UTC
From: David L Thompson <thompson@mindspring.com>
Message-ID: <5p95c.3793$GQ3.2288@newsread3.news.atl.earthlink.net>
Source record: 98412

Electronic Switch sold the Fritzel version of the OCF as the FD-4 (80 to 10) and the FD-3 (40 to 10). The FRitzel was built like a battleship. I agree with ham who said you could built one at home. I forget the exact dimensions (41' was the short side of 136 total length) but the only trick is to use a proper 300 ohm to 50 ohm balun. Or you can feed it with ladderline as several have done. The OCF is the latest version of an old antenna called the windom for W8GZ (the inventor).
This one was fed with a single line. The only thing I would be afraid of on this is the balun. We tested and double tested the Fritzel and they were underrated. The 700 watt version took 1500W with no problem. The 2KW and 5KW probably took far more. I had the 2KW and it easily took a KW of AM.
73 Dave K4JRB

Va4ua <va4ua@valleynet.comensions> wrote in message news:40546269$0$4227$afc38c87@news.optusnet.com.au...
> I was think of getting one of these.
>
> http://www.dxantennas.com/wst_page5.php
>
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.593 / Virus Database: 376 - Release Date: 21/02/2004
>
>

4141. Building an Aircraft Band Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 03:34:39 UTC
From: mobilelawyer <mobilelawyer@yourservice.com>
Message-ID: <2t8a505js647gd05563g4a7a47e6gou82v@4ax.com>
Source record: 98413

There was an article in Popular Communications back in the 1980's on
building an aircraft band yagi antenna. I made one from a TV antenna
and it worked just fine. I am now back into aircraft band
listening,and
would like to build another.

Does anyone have this article, or know where I can find a copy? As I
recall, the design was very simple with, perhaps one active element
and two passive, or vice versa. The article applied to the VHF
aircraft band only, not the military aircraft band, although I don't
see why one could not be built for that band.

Any help would be greatly appreciated!

mobilelawyer
at your service

4142. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 04:02:14 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <aV95c.38960$aT1.20927@newsread1.news.pas.earthlink.net>
Source record: 98414

Hi again Cecil, and thank you for responding!

But since you answered a different question than the one I asked,
I'll follow up with a few more questions.

Are the model comparisons based on power applied to the antenna
feedpoint, independent of feedline and/or tuner losses?

What height and ground conditions are you modeling for the dipole?

What radial structure are you assuming for the "typical 1/4WL
ground-mounted monopole?"

What ground conditions are you assuming for the "typical 1/4WL
ground-mounted monopole?"

What is the best (read highest average gain) elevation angle for the
dipole under the assumed conditions?

What is the best elevation angle (read highest average gain) for the
monopole under the assumed conditions?

At what elevation angle(s) are the modeled patterns being compared?

73, Ed

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4055147a$1_2@corp.newsgroups.com...
> Old Ed wrote:
>
> > 30m should certainly be well within the range of the "universal"
> > dipole design.
> >
> > Presumably the gain/beamwidth numbers you quote come out of
> > a model. For completeness, what does the model say the average
> > gain is in the OTHER 180 degrees (the nulls)?
>
> 60 degrees of the horizontal coverage falls below the typical
> 1/4WL ground-mounted monopole - not a bad tradeoff, IMO.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>

4143. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 04:08:22 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86hdwq92h5.fsf@duchess.twilley.org>
Source record: 98415

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Tam" == t-tammaru <Tam> writes:

Tam> Jack, Just some comments. I think you have the right kind of
Tam> antenna with the fan dipoles. You say it is lower than the house;
Tam> can't you prop up at least some of it to the height of the house,
Tam> or a couple of feet more.

Nope, I meant what I said when I said I can't get the wire any higher
than it is right now at this current location.

Tam> Have you determined that the radio puts out the same power on SSB
Tam> (whistle) as when you tune up (on CW?) ?

No, but I'm not really concerned about SSB versus CW -- I'll operate
CW if that's what it takes, and it'll be incentive to finally learn.

Tam> I made most of my early contacts during contests, by answereing
Tam> calls from people who did not have big pileups. If they hear you,
Tam> they will come back to you. I did get my SSB DXCC with a Junior
Tam> beam at 28 feet.

My situation is that I can't make a scheduled contact with someone
twenty miles from my house while we're on the phone. "Can you hear me
on this frequency? Let me key up and you tell me if you can hear me."
That's the kind of thing I'm talking about. Worrying about how to get
lots of contacts is way way in the future -- I'm fixed on worrying
about whether my equipment is even working.

Tam> To trim a multiple dipole like yours, you have to trim the lowest
Tam> frequency first, and work your way up. I have a 40/17/12 antenna
Tam> like that, and this is the only way I got it to convege in EZNEC.

That's the plan, once I get the noise bridge. My environment is too
complex for me to attempt to model it with EZNEC.

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAVSw7GPFSfAB/ezgRAsstAKCC7WSFI7zfR7YzWIFPkCyrbXKp2ACfdAsM
5H4/fieF982XRX8t76o5BaQ=

```
=+Ipn
-----END PGP SIGNATURE-----
```

4144. screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 04:11:43 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c33afh$1n82oc$2@ID-225834.news.uni-berlin.de>
Source record: 98416

Anyone ever setup a screwdriver on a RV and have it work very well ?

I have one installed but it preforms very poorly compared to
how well it worked on my car.

I think it is not working very well because the entire antenna is next to
the side of the motorhome.. and on my car.. only maybe the bottom 2 feet
of it were beside another surface.

I guess another question would be.. does anyone know if it would possibly
work better if it could be mounted at an angle instead of directly
vertical?

--
Registered Linux User #346565

4145. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 04:27:27 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405530e8$1_6@corp.newsgroups.com>
Source record: 98417

Jeremy Salch wrote:
> I guess another question would be.. does anyone know if it would possibly
> work better if it could be mounted at an angle instead of directly
> vertical?

It would work better on top until you hit something.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4146. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 04:50:11 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4055363e_6@corp.newsgroups.com>
Source record: 98418

Old Ed wrote:
> Are the model comparisons based on power applied to the antenna
> feedpoint, independent of feedline and/or tuner losses?

Yes (However, for A-B comparisons, the dipole used a tuned feeder
and no tuner. The vertical was fed with RG-213 and no tuner.)

> What height and ground conditions are you modeling for the dipole?

It's my typical East Texas ground at a height of 40 ft.

> What radial structure are you assuming for the "typical 1/4WL
> ground-mounted monopole?"

8 radials, modeled one foot above ground. A-B tests were done with
8 radials 20 ft above ground sloping down to 6 feet above ground.

> What ground conditions are you assuming for the "typical 1/4WL
> ground-mounted monopole?"

Typical East Texas ground, same as for the dipole

> What is the best (read highest average gain) elevation angle for the
> dipole under the assumed conditions?

9 dBi at 34 degrees, 8.5 dBi at 26 degrees, 0 dBi at 7 degrees

> What is the best elevation angle (read highest average gain) for the
> monopole under the assumed conditions?

-0.65 dBi at 34 degrees, 0 dBi at 26 degrees, -4.5 dBi at 7 degrees

> At what elevation angle(s) are the modeled patterns being compared?

See above. The dipole beats the vertical by a couple of S-units in
the dipole's best direction. A-B tests were actually run on 40m.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4147. Re: 40m full wave NVIS loop - mulitband use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 07:52:30 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <405560BE.50909@optusnet.com.au>
Source record: 98269

Hi Cecil

Yes I was very interested in your design. I saw it some months ago and discarded it from the standpoint of being too long. One of the other big differences too is that you are using feedline to offset the antenna reactance whereas I am feeding a resonant antenna albeit at higher and higher Z as the freq goes up. I only need to transform the Z.

I said "avoid" switching things in and out, but I can see that I am just going to have to get a box and put something together. I was thinking a broadband balun with maybe taps for diff frequencies or separate baluns. I was hoping someone would present me with a "all in one" balun design that would do it all! <grin> I was also thinking of using switched coax based baluns (say 4:1's) but thought it a bit messy. The other "dream" was somehow coming up with a magical lengths of some strange Z coax (say RG62) and switching them in and out like your open wire design... (eg 1/4 wave Q sections 75r coax at 20m, 92r coax at 15m, 4:1 coax balun at 10m)

Some other notes

If I direct feed the antenna at 40M it only has a VSWR 2:1 BW of about 100kHz. I was already thinking of attaching a geared down motor/fibreglass rod to roll up some of the antenna conductor (tinned copper braid) for tuning. This would also serve to make up differences on other freqs.

For those that queried NVIS not being so useful at a higher frequency. This is more a case of making something work in the space available. The loop is actually a very strange shape that roughly looks like a triangle sloping down at maybe 30degrees. (The way the ground slopes) I havent tried to model it but I would asssume that some radiation at harmonic freqs would be desirably closer to the horizom.

Thank you all for your comments.

Cheers Bob VK2YQA

Cecil Moore wrote:
> Bob Bob wrote:
>
>> I want it to be "no tune/no ATU" and to avoid switching things in and
>> out.
>
>
> Bob, if such existed, almost everybody would be using one. The best
> I can offer is switched lengths of feedline, depending upon what
> band you are on. For a 40m dipole, 1/2WL of ladder-line. For a 40m

> dipole used on 20m, 3/4WL of ladder-line is about right.
>
> I run a 130 ft. dipole on all HF bands with no tuner (per se) simply
> by switching lengths of ladder-line. Take a look at my web page.

4148. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 08:35:39 UTC
From: iverson910506@yahoo.com.tw
Message-ID: <c0009b03.0403150035.7714f331@posting.google.com>
Source record: 98270
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

ogihosr

4149. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 09:53:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c33uenrgg1@sparta.btinternet.com>
Source record: 98271

> Come on Reg, they don't give it up just for an elucidation of the
conjugate
> match!
>
> Ed
> wb6wsn
======================

Don't you mean the conjugal match ?

4150. 3 Antennas Down - For Sale in NH

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 10:57:29 UTC
From: JS <wd1v@removethisamsat.org>
Message-ID: <150320040557297913%wd1v@removethisamsat.org>
Source record: 98272

TA-33 asking $75

Arrow AO-40 Satellite antenna - hand held cross polarized asking $25

CC 2 meter 13 element boomer asking $35.00

All 3 for $100.00

john WD1V - Manchester, NH -
email mycall@amsat.org

4151. Re: DFing info wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 11:46:17 UTC
From: Dave <noone@nowhere.com>
Message-ID: <9vednYJWKrQTCsjdRVn-sw@crocker.com>
Source record: 98273

"thatcher" <thatc4@net.com> wrote in message
news:c32qn701a1n@enews3.newsguy.com...
> I bought a ELK log periodic dual band antenna. VHF/UHF 5 elements.
>
> What are some good DFing techniques?

follow the signal

>
> How much distance should be between my body and the antenna?

as much as you can get

>
> This ELK antenna is fed near the reflector. Whats up with that?

a log periodic doesn't have a 'reflector' as such. every element is fed.

>
> It says it has 20 db of front to back but I sure can't see too much
> difference while pointing and not pointing at repeaters.

it will depend a lot on what is around you , the frequency, polarization,
etc. it is likely that if you are not careful you will measure lots of
reflections, especially if you have a strong source that is probably at a
high location.

>
> Where is a good place to get attenutors.

a radio store.

>
> Should I have bought a different antenna for DFing?

depends on what you want to df.

4152. Re: WTB:2 Meter Duplexers

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 11:48:39 UTC
From: Guilala <d.larouche@sympatico.ca>
Message-ID: <AJg5c.266$Eb6.72165@news20.bellglobal.com>
Source record: 98274
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap

I have a look-like new Sincalir REslock 4 cavity 500Khz spacing duplexer.
It have 1 year old.

It can be tuned to your frequency if you wish.

I have also some repeater part like controller whit autopatch, commercial
radio

Asking 500$

d.larouche@sympatico.ca
"Charlie" <okiemansc@yahoo.com> a crit dans le message de news:
RtP4c.93268$Bz3.28034@okepread05...
> Small ham club in the midwest is looking to buy a set of 2 meter
> duplexers. Prefer 4 or 6 cavity. MIN: 65 db rejection @ 600 kHz. No mobile
> duplexers please.
> Please state price,condition and location.
> THANKS,
> ...Charlie...
>
>

4153. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 12:38:12 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <Ush5c.16005$1p.293764@attbi_s54>
Source record: 98275

What about recourse to the Judicial Branch of Government?

DD

Ken Coghill III, WB4ZOH wrote:

> A real "hot button" topic as BPL is here in the city of Manassas, Va and
> disrupts 10-40m. AMRAD is conducting "tests", amateur radio operators
> are sending letters to Congressmen, Representatives, City Officials and
> the FCC.
>
> However, as the City receives serious $$$, it will become very obvious
> the Amateur Radio Service will be ignored.
>
> Ken Coghill, WB4ZOH
> Manassas, VA
>
>
>
>
>
>
>
> thatcher wrote:
>
>> http://biz.yahoo.com/fool/040303/1078348320_1.html
>>
>>
>> *Motley Fool*
>> Broadband and Utilities, Oh My
>> Wednesday March 3, 4:12 pm ET
>> By Mark Mahorney
>>
>> Only a year ago, broadband over power line (BPL) was seen as a
>> technology with an uncertain future and far from implementation.
>> Despite early snafus, BPL has ironed out its kinks and is now being
>> rolled out. Though largely ignored, this is one of the most exciting
>> events to hit technology news in a long time.
>>
>> ADVERTISEMENT
>>
>> Considering how long the Internet has been sharing phone lines, it's
>> taken a long time for power lines to reach the dual-use point. Cable
>> and DSL Internet service providers have been crossing their fingers
>> hoping it wouldn't happen.

>>
>> It's sneaking up on them just as cable Internet launched a sneak
>> attack on dial-up providers. Now, the dial-up providers are largely
>> dependent on phone company partnerships and rural customers who can't
>> get cable or DSL. But what will become of them if those customers --
>> which represent a significant portion of the population -- can get
>> broadband Internet over their power lines? And who would have thought
>> we may soon be paying our power company for Internet access?
>>
>> Yesterday, *Cinergy* (NYSE: CIN <http://finance.yahoo.com/q?s=cin&d=t>
>> - News <http://finance.yahoo.com/q/h?s=cin>) announced that its
>> Cinergy Broadband subsidiary and partner Current Communications are
>> rolling out the BPL service in the Cincinnati, Ohio area. After
>> testing the service in a small region, the company is ready to unleash
>> the power (no pun intended). It claims its service is faster -- more
>> than three megabytes per second compared with cable's roughly two megs
>> per second -- and cheaper than cable Internet.
>>
>> Test customers have been happy with the service, and there have been
>> no problems with interference. Furthermore, all that's needed to tap
>> into it is a $30 HomePlug power line modem, which the company will be
>> giving away.
>>
>> Cinergy isn't the only utility looking at this technology, either.
>> There are numerous power companies developing the capability or
>> watching its development closely. Internet start-ups like Current
>> Communications are waiting in the wings to help the utilities initiate
>> and manage the service.
>>
>> It's a potentially huge revenue source for the utilities, with the
>> possibility of being a huge revenue drain for the current Internet
>> providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
>> <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
>> <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
>> Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
>> <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
>> <http://finance.yahoo.com/q?s=bls&d=t> - News
>> <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications* (NYSE:
>> SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
>> <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional
>> dial-ups like *Time Warner's* (NYSE: TWX
>> <http://finance.yahoo.com/q?s=twx&d=t> - News
>> <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
>> *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
>> News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying
>> attention.
>>
>> From the look of things, this technology will roll out much faster
>> than most people expect. I am certainly willing to give it a try if
>> and when it comes to my area. And I recommend you check with your

>> local power company to see if it has any plans to implement the
>> technology. If so, consider taking a good look at both the stock and
>> the service. It could be the next big thing.
>>
>> /What do you think this new technology means for cable companies like
>> Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
>> service providers like Time Warner's AOL
>> <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
>> other Fools on our discussion boards./
>>
>> /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
>> doesn't own shares of any companies mentioned./
>>
>
>

4154. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 14:15:10 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4055BA6E.FF44CD5C@cwis.net>
Source record: 98276

Jeremy,
You're right, being next to the metal of the RV is the problem. The solution is just exactly what you probably think it is, move it away from the RV. The "how" is the hard part, there really isn't a 'good' way of doing it that doesn't envolve either a lot of effort, or money. Tilting the antenna may make some very small improvement but don't count on it. The idea is to get it away from the RV as far as possible, or above it as Cecil said. If you could raise it far enough to get the exposed coil and whip above the roof line, performance would be much better. If the whip isn't very 'whippy'/flexible, I think I'd see if I could find one that is. It will increase the survivability of the antenna some. By the way, you would then have an antenna and 'BCI', "Bridge Clearance Indicator".
Good luck...
'Doc

PS - You will also need to brace/guy the antenna. Plastic of plexiglass brace works just fine.

4155. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 14:17:54 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <c34duh$1amo$1@f04n12.cac.psu.edu>
Source record: 98277

"KC1DI" <kc1di@arrl.net> wrote in message
news:jt46509rvejoqtg6n1vs18qsj2udasv1sf@4ax.com...
> Just curious as to what most of you are using as an antenna on
> the 30 Meter band?
>
> I've used many and was just wondering if i could improve my overall DX
> performance with something other than a Dipole. With out going to the
> expense of a Beam.
>
> 73 Dave
>

Look at a half square, could give you more than 3dbi of gain at a very low
angle, with no ground radials required.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

4156. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 14:31:32 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40546734_3@newsfeed.slurp.net>
Source record: 98278

Jeremy, is your RV skinned with fiberflas or sheet metal? Obviously, you're going to have more problems with sheet metal. Also, you said you had the antenna installed. Maybe you need to go behind the installers, and beef up the grounding system?

Screwdrivers also give you a few more options. You can take the whole antenna and mount it inside a PVC tube on the roof of the RV, and run it horizontally. You can also run the motorized coil inside, and use it to feed a separately-mounted whip (only a short distance away). In either case, you still need to beef up the ground systems.

73,
Mike KI6PR
El Rancho R.F., CA

"Jeremy Salch" wrote
> Anyone ever setup a screwdriver on a RV and have it work very well ?
>
> I have one installed but it preforms very poorly compared to
> how well it worked on my car.
>
> I think it is not working very well because the entire antenna is next to
> the side of the motorhome.. and on my car.. only maybe the bottom 2 feet
> of it were beside another surface.
>
> I guess another question would be.. does anyone know if it would possibly
> work better if it could be mounted at an angle instead of directly
> vertical?
>
>
> --
> Registered Linux User #346565
>

4157. Re: hf antenna for car

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 14:34:34 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <405467e4_5@newsfeed.slurp.net>
Source record: 98279

Great. What kind of vehicle is it? What bands do you want to operate on?

- KI6PR

"Bruce" wrote
> Iam getting ready to put a icom-706 in my car
> and would like some input on what antenna to use.

4158. small mobile antenna suggestion?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 14:42:49 UTC
From: anpap@my-deja.com
Message-ID: <c106891e.0403150642.73fa210a@posting.google.com>
Source record: 98280

I'm looking for a small mobile antenna for the 2m & 70cm bands. If it could
also cover the 6m band that would be great.I want it to have a PL259 connector to be able to use it with my existing magnet mount. In addition, I would like it to be quite short (less than 30cm/12in) or be able to fold it somehow, so that I can park my car (SUV) in the basement.

Can anyone suggest a specific model?

thanks,
Andreas

4159. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 14:54:42 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <Be2dnSIVmpEwXsjdRVn-ig@comcast.com>
Source record: 98281

"Jack Twilley" <jmt+usenet@twilley.org> wrote in message
news:86hdwq92h5.fsf@duchess.twilley.org...
> -----BEGIN PGP SIGNED MESSAGE-----
> Tam> Have you determined that the radio puts out the same power on SSB
> Tam> (whistle) as when you tune up (on CW?) ?
>
> No, but I'm not really concerned about SSB versus CW -- I'll operate
> CW if that's what it takes, and it'll be incentive to finally learn.

That's what I am concerened about. You may have a bad mic, or just not modulating due to some failure. When I wasn't able to get out, I could alwayds talk to locals. Try CW/carrier with your friend. He doesn't have to know CW if you are on the phone and he knows your frequency. I would do it on 10m, away from anybody else. You know you can get 20 miles on CB with 5W, and you have 100.

Tam/WB2TT

4160. Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 14:57:00 UTC
From: Toni <ea3fya@hotmail.com>
Message-ID: <aqgb501mjtthdq5igce8bdll1s3l46i81o@4ax.com>
Source record: 98282

Hi,

I have always been taught that electrical and magnetic RF fields went always together. You couldn't produce one without the other and vice-versa.

Then I read about mag-loops having better RX noise immunity than normal antennas because they react to magnetic fields, whilst man-made noise occurs mostly on electrical fields.

??????

If both fields go together, how can noise be greater in the electrical field than in the magnetic one? Does that mean that you can effectively produce one without the other?

Taking it further, if you can _receive_ one while rejecting the other, then, by the reciprocity law, you should be able to produce one without the other.

What is (where am I) wrong?

EA3FYA - Toni

4161. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 16:11:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4055d5eb$1_5@corp.newsgroups.com>
Source record: 98283

Toni wrote:
> I have always been taught that electrical and magnetic RF fields
> went always together. You couldn't produce one without the other
> and vice-versa.

The ratio of the E-field to the H-field is the impedance.
For free space, the characteristic impedance is 377 ohms.
For a small loop antenna, the H-field is much greater than
the E-field and the impedance is very small. Presumably,
in a superconducting loop, the E-field is zero and all the
energy is contained in the H-field. I wonder if we will
ever have superconducting ham antennas?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4162. Re: BPL being deployed!!! Emergency

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 16:31:10 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <o5mdnT1qdMluRMjdRVn-uQ@comcast.com>
Source record: 98284

Art, never read much of what you wrote because a lot of it was nonsense. I always put that off to you being rather eccentric. I see now that you are nothing more than a troll.
Plonk.
"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message news:85ed38d.0403091947.76460ae@posting.google.com...
> Why doesn't the ARRL offer BPL people the code portions of amateur
> bands.
> With removal of the code from exams around the World and the aging of
> the hobby
> being generous with an offer will help the hobby to survive a bit
> longer. If the interference created is not to the common good then BPL
> goes out the window, if the interference does NOT occur then the
> common good should benefit.
> We have to recognise that the hobby is not attracting sufficient new
> members as more auguements occur and as computors become the prime
> vehicle for communication via forums such as this.
> Regards
> Art
> the bansthatcher <thatc4@net.com> wrote in message news:<c265ct027k1@enews2.newsguy.com>...
> > http://biz.yahoo.com/fool/040303/1078348320_1.html
> >
> >
> > *Motley Fool*
> > Broadband and Utilities, Oh My
> > Wednesday March 3, 4:12 pm ET
> > By Mark Mahorney
> >
> > Only a year ago, broadband over power line (BPL) was seen as a
> > technology with an uncertain future and far from implementation. Despite
> > early snafus, BPL has ironed out its kinks and is now being rolled out.
> > Though largely ignored, this is one of the most exciting events to hit
> > technology news in a long time.
> >
> > ADVERTISEMENT
> >
> > Considering how long the Internet has been sharing phone lines, it's
> > taken a long time for power lines to reach the dual-use point. Cable and
> > DSL Internet service providers have been crossing their fingers hoping
> > it wouldn't happen.
> >
> > It's sneaking up on them just as cable Internet launched a sneak attack
> > on dial-up providers. Now, the dial-up providers are largely dependent

> > on phone company partnerships and rural customers who can't get cable or
> > DSL. But what will become of them if those customers -- which represent
> > a significant portion of the population -- can get broadband Internet
> > over their power lines? And who would have thought we may soon be paying
> > our power company for Internet access?
> >
> > Yesterday, *Cinergy* (NYSE: CIN <http://finance.yahoo.com/q?s=cin&d=t> -
> > News <http://finance.yahoo.com/q/h?s=cin>) announced that its Cinergy
> > Broadband subsidiary and partner Current Communications are rolling out
> > the BPL service in the Cincinnati, Ohio area. After testing the service
> > in a small region, the company is ready to unleash the power (no pun
> > intended). It claims its service is faster -- more than three megabytes
> > per second compared with cable's roughly two megs per second -- and
> > cheaper than cable Internet.
> >
> > Test customers have been happy with the service, and there have been no
> > problems with interference. Furthermore, all that's needed to tap into
> > it is a $30 HomePlug power line modem, which the company will be giving
> > away.
> >
> > Cinergy isn't the only utility looking at this technology, either. There
> > are numerous power companies developing the capability or watching its
> > development closely. Internet start-ups like Current Communications are
> > waiting in the wings to help the utilities initiate and manage the
service.
> >
> > It's a potentially huge revenue source for the utilities, with the
> > possibility of being a huge revenue drain for the current Internet
> > providers. Cable Internet providers like *Comcast* (Nasdaq: CMCSA
> > <http://finance.yahoo.com/q?s=cmcsa&d=t> - News
> > <http://finance.yahoo.com/q/h?s=cmcsa>), DSL providers like *Qwest
> > Communications* (NYSE: Q <http://finance.yahoo.com/q?s=q&d=t> - News
> > <http://finance.yahoo.com/q/h?s=q>), *BellSouth* (NYSE: BLS
> > <http://finance.yahoo.com/q?s=bls&d=t> - News
> > <http://finance.yahoo.com/q/h?s=bls>), and *SBC Communications* (NYSE:
> > SBC <http://finance.yahoo.com/q?s=sbc&d=t> - News
> > <http://finance.yahoo.com/q/h?s=sbc>), and even the traditional dial-ups
> > like *Time Warner's* (NYSE: TWX <http://finance.yahoo.com/q?s=twx&d=t> -
> > News <http://finance.yahoo.com/q/h?s=twx>) America Online (AOL) and
> > *Microsoft's* (Nasdaq: MSFT <http://finance.yahoo.com/q?s=msft&d=t> -
> > News <http://finance.yahoo.com/q/h?s=msft>) MSN should be paying
attention.
> >
> > From the look of things, this technology will roll out much faster than
> > most people expect. I am certainly willing to give it a try if and when
> > it comes to my area. And I recommend you check with your local power
> > company to see if it has any plans to implement the technology. If so,
> > consider taking a good look at both the stock and the service. It could
> > be the next big thing.
> >

> > /What do you think this new technology means for cable companies like
> > Comcast <http://boards.fool.com/Messages.asp?bid=101774> or Internet
> > service providers like Time Warner's AOL
> > <http://boards.fool.com/Messages.asp?bid=100347>? Talk about it with
> > other Fools on our discussion boards./
> >
> > /Motley Fool contributor Mark Mahorney <mailto:afool@cofishop.com>
> > doesn't own shares of any companies mentioned./

4163. Cobbweb antenna anyone using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 16:50:42 UTC
From: les <gm4jnwnospam@hotmail.com>
Message-ID: <105bnoakf9ucs3e@corp.supernews.com>
Source record: 98285

Seen the cobbweb and looks good on paper.
http://www.g3tpw.ukgateway.net/

Has anyone used one or made one.
Cant find any references to homebrew on the webb.

Cheers

4164. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 17:10:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n4ob50d0od5h45vjdk325qdfii2jhmno9d@4ax.com>
Source record: 98286

On Mon, 15 Mar 2004 15:57:00 +0100, Toni <ea3fya@hotmail.com> wrote:
>Then I read about mag-loops having better RX noise immunity than
>normal antennas because they react to magnetic fields, whilst
>man-made noise occurs mostly on electrical fields.

Hi Toni,

The noise that is very local, or within one or two wavelengths of its source has a different field than that which propagates in from across town, or region, or country....

This would be noise from fluorescent lighting, TVs, Computers, motors and such within the neighborhood or home. That same noise coming from across town has a different field structure and it conforms to your expected reciprocity.

But really, this is a matter of luck and the polarization of the loop too. Most of that noise is vertically polarized. The loop in the horizontal position may show more sensitivity than in the vertical position. Further, the noise may be coupled electrostatically rather than electromagnetically.

73's
Richard Clark, KB7QHC

4165. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 17:16:39 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <yvl5c.43431$p77.40413@bignews3.bellsouth.net>
Source record: 98287

"Mikey" <ki6pr@arrl.net> wrote in message
news:40546734_3@newsfeed.slurp.net...
> Jeremy, is your RV skinned with fiberflas or sheet metal? Obviously,
you're
> going to have more problems with sheet metal. Also, you said you had the
> antenna installed. Maybe you need to go behind the installers, and beef
up
> the grounding system?
>
> Screwdrivers also give you a few more options. You can take the whole
> antenna and mount it inside a PVC tube on the roof of the RV, and run it
> horizontally. You can also run the motorized coil inside, and use it to
> feed a separately-mounted whip (only a short distance away). In either
> case, you still need to beef up the ground systems.
>
> 73,
> Mike KI6PR
> El Rancho R.F., CA

Yes, *IF* the body is fiberglass. If it is in close proximity to metal it
won't work well if at all! If your RF is metal, there isn't much you can do
except try to move it as far
away as possible from the body.

The other solution is to mount it on the rear ladder where it can be tilted
down for stowage while underway. It might
mean that you could only operate while parked in the RV
park. If the body is fiberglass, you could cut a block of
wood, paint it and cut a "V" in it, and tilt the antenna down to rest in
this "V". Then you could operate while
underway using one of those AMAC positioners--pricey
but would work.

Finally, I have seen screwdrivers mounted on the ladder
in the horizontal facing rearward and high enough to stay
away from other vehicles. Then it was braced with another piece of non
conductive material in that position
OR slanted up towards vertical. This, of course, kept it
out from bridges but let it operate well. Use a stiff upper
whip.

73

Jerry
K4KWH
>

> "Jeremy Salch" wrote
> > Anyone ever setup a screwdriver on a RV and have it work very well ?
> >
> > I have one installed but it preforms very poorly compared to
> > how well it worked on my car.
> >
> > I think it is not working very well because the entire antenna is next
to
> > the side of the motorhome.. and on my car.. only maybe the bottom 2
feet
> > of it were beside another surface.
> >
> > I guess another question would be.. does anyone know if it would
possibly
> > work better if it could be mounted at an angle instead of directly
> > vertical?
> >
> >
> > --
> > Registered Linux User #346565
> >
>
>

4166. Re: Cobbweb antenna anyone using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 18:09:50 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4055F0C7.D5EEE64D@shaw.ca>
Source record: 98288

les wrote:
>
> Seen the cobbweb and looks good on paper.
> http://www.g3tpw.ukgateway.net/
>
> Has anyone used one or made one.
> Cant find any references to homebrew on the webb.
>
> Cheers

I've seen a couple homebrew versions that worked OK. Basically
just bamboo spreaders holding nested dipoles with their ends folded
around to save space. It shouldn't be difficult to homebrew.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4167. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 18:20:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4055f42b_5@corp.newsgroups.com>
Source record: 98289

Jerry wrote:
> Finally, I have seen screwdrivers mounted on the ladder
> in the horizontal facing rearward and high enough to stay
> away from other vehicles. Then it was braced with another piece of non
> conductive material in that position
> OR slanted up towards vertical. This, of course, kept it
> out from bridges but let it operate well. Use a stiff upper
> whip.

Another idea is to locate the antenna on top of the vehicle and
install a very large top hat one foot above the coil. That would
limit the height of the antenna system to about four feet above
the top of the vehicle. I once tried an experiment of a 6'x14'
piece of 1/4" hardware screen mounted four feet above the cab
of my pickup used as a top hat for my High Sierra screwdriver.
It minimized the amount of coil required and put out one heck
of a signal. Field Strength measurements indicate that it would
have placed at the top in a 75m mobile shootout.

A 6'x14' top hat would actually be easier to implement on an RV
than on a pickup.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4168. Stationmaster vs G9

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 18:34:28 UTC
From: Joseph Fenn <jfenn@lava.net>
Message-ID: <Pine.BSI.4.58.0403150831570.27677@malasada.lava.net>
Source record: 98290

I know the stationmaster (commercial version) vhf colinear
antenna is physibcally more durable since its made for Commercial
useage by the Airlines etc, but how does it gain in DB's compare
to the G9 Newtronics vertical co-linear in gain level.
Joe/ABM6JF/KH6JF

****
* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
****

4169. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 18:45:25 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403151045.3feff4bb@posting.google.com>
Source record: 98291

Toni <ea3fya@hotmail.com> wrote in message
news:<aqgb501mjtthdq5igce8bdll1s3l46i81o@4ax.com>...
> Hi,
>
> I have always been taught that electrical and magnetic RF fields
> went always together. You couldn't produce one without the other
> and vice-versa.
>

A changing magnetic field creates a changing electrical field
which are orthogonal (perpedicular) top each other:

http://hyperphysics.phy-astr.gsu.edu/hbase/waves/emwavecon.html#c1

> Then I read about mag-loops having better RX noise immunity than
> normal antennas because they react to magnetic fields, whilst
> man-made noise occurs mostly on electrical fields.
>
> ??????

Sounds like a load of bullsh*t to me. Assuming the man-made
noise is still a propagating EM wave, how can they not have an
electric field?

>
> If both fields go together, how can noise be greater in the
> electrical field than in the magnetic one? Does that mean that
> you can effectively produce one without the other?
>
> Taking it further, if you can _receive_ one while rejecting the
> other, then, by the reciprocity law, you should be able to
> produce one without the other.
>
> What is (where am I) wrong?
>
> EA3FYA - Toni

I think you are correct to question this claim.

Slick

4170. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 19:40:27 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c350rb$23fsqp$1@ID-225834.news.uni-berlin.de>
Source record: 98292

Mikey wrote:

> Jeremy, is your RV skinned with fiberflas or sheet metal? Obviously,
> you're
> going to have more problems with sheet metal. Also, you said you had the
> antenna installed. Maybe you need to go behind the installers, and beef
> up the grounding system?
>
> Screwdrivers also give you a few more options. You can take the whole
> antenna and mount it inside a PVC tube on the roof of the RV, and run it
> horizontally. You can also run the motorized coil inside, and use it to
> feed a separately-mounted whip (only a short distance away). In either
> case, you still need to beef up the ground systems.
>
> 73,
> Mike KI6PR
> El Rancho R.F., CA

The RV is fiberglass with a metal frame. I hadn't thought about running it totally horizontally on the roof inside of a piece of PVC, that could work. But then the antenna is still right next to a fiberglass surface, just about 10 feet higher in the air. As far as the ground goes, I did the installing and it is grounded to the Metal frame underneath the RV, which runs the length of the RV with big metal supports.. etc.

I'm not sure i understand how a seperately mounted whip would work, the idea sounds interesting but I can't picture it.

--
Registered Linux User #346565

4171. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 19:42:24 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c350uv$23fsqp$2@ID-225834.news.uni-berlin.de>
Source record: 98293

Jerry wrote:

>
> "Mikey" <ki6pr@arrl.net> wrote in message
> news:40546734_3@newsfeed.slurp.net...
>> Jeremy, is your RV skinned with fiberflas or sheet metal? Obviously,
> you're
>> going to have more problems with sheet metal. Also, you said you had the
>> antenna installed. Maybe you need to go behind the installers, and beef
> up
>> the grounding system?
>>
>> Screwdrivers also give you a few more options. You can take the whole
>> antenna and mount it inside a PVC tube on the roof of the RV, and run it
>> horizontally. You can also run the motorized coil inside, and use it to
>> feed a separately-mounted whip (only a short distance away). In either
>> case, you still need to beef up the ground systems.
>>
>> 73,
>> Mike KI6PR
>> El Rancho R.F., CA
>
>
> Yes, *IF* the body is fiberglass. If it is in close proximity to metal it
> won't work well if at all! If your RF is metal, there isn't much you can
> do except try to move it as far
> away as possible from the body.
>
> The other solution is to mount it on the rear ladder where it can be
> tilted down for stowage while underway. It might
> mean that you could only operate while parked in the RV
> park. If the body is fiberglass, you could cut a block of
> wood, paint it and cut a "V" in it, and tilt the antenna down to rest in
> this "V". Then you could operate while
> underway using one of those AMAC positioners--pricey
> but would work.
>
> Finally, I have seen screwdrivers mounted on the ladder
> in the horizontal facing rearward and high enough to stay
> away from other vehicles. Then it was braced with another piece of non
> conductive material in that position
> OR slanted up towards vertical. This, of course, kept it
> out from bridges but let it operate well. Use a stiff upper
> whip.

>
> 73
>
> Jerry
> K4KWH

That has been a thought.. fabricating some kind of mount to put on while parked but take it down during travel. I'd like to keep it operational during travel, but we'll see.

--
Registered Linux User #346565

4172. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 19:44:50 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c3513i$23fsqp$3@ID-225834.news.uni-berlin.de>
Source record: 98294

Cecil Moore wrote:

> Jerry wrote:
>> Finally, I have seen screwdrivers mounted on the ladder
>> in the horizontal facing rearward and high enough to stay
>> away from other vehicles. Then it was braced with another piece of non
>> conductive material in that position
>> OR slanted up towards vertical. This, of course, kept it
>> out from bridges but let it operate well. Use a stiff upper
>> whip.
>
> Another idea is to locate the antenna on top of the vehicle and
> install a very large top hat one foot above the coil. That would
> limit the height of the antenna system to about four feet above
> the top of the vehicle. I once tried an experiment of a 6'x14'
> piece of 1/4" hardware screen mounted four feet above the cab
> of my pickup used as a top hat for my High Sierra screwdriver.
> It minimized the amount of coil required and put out one heck
> of a signal. Field Strength measurements indicate that it would
> have placed at the top in a 75m mobile shootout.
>
> A 6'x14' top hat would actually be easier to implement on an RV
> than on a pickup.

I'm not sure i understand what you mean by a top-hat?
Do you thing something like this could be used with the body of the
scredriver antenna mounted horizontally on top of the rv and the Top hat
mounted close but seperately, making the antenna basically flush with the
top of the rv ? If that makes any sense.

--
Registered Linux User #346565

4173. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 19:45:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40560823_1@corp.newsgroups.com>
Source record: 98295

Dr. Slick wrote:
> Sounds like a load of bullsh*t to me. Assuming the man-made
> noise is still a propagating EM wave, how can they not have an
> electric field?

The basic question is probably: Does an incoming EM wave couple
more of its magnetic field than its electric field into a small
loop (magnetic) antenna?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4174. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 19:54:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40560a1e_1@corp.newsgroups.com>
Source record: 98296

Jeremy Salch wrote:
> I'm not sure i understand how a seperately mounted whip would work, the idea
> sounds interesting but I can't picture it.

Try this idea. Run the base of the antenna vertically up about three feet.
From that point, run the screwdriver coil horizontally. Then from the
other end of the screwdriver, run a non-destructable whip as high as
possible. It would look something like this:

```
|
|
| whip
|
+---screwdriver coil---+
| X
3' | Base non-conductive support
_________|_____________________X_____
Top of RV
```

--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4175. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 20:10:06 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c352iu$23fsqp$5@ID-225834.news.uni-berlin.de>
Source record: 98297

Cecil Moore wrote:

> Jeremy Salch wrote:
>> I'm not sure i understand how a seperately mounted whip would work, the
>> idea sounds interesting but I can't picture it.
>
> Try this idea. Run the base of the antenna vertically up about three feet.
> From that point, run the screwdriver coil horizontally. Then from the
> other end of the screwdriver, run a non-destructable whip as high as
> possible. It would look something like this:
>
> |
> |
> | whip
> |
> +---screwdriver coil---+
> | X
> 3' | Base non-conductive support
> _________|_____________________X_____
> Top of RV
>

Ok 3 feet would be a bit difficult... this RV is a 1990 Airex by Rexhall..
and it is 14ish feet tall. so it is about as tall as it is safe to go with
anything that can't take a beating if it might need to. but the basic
idea is to have the coil horisontaly mounted.. and a short wire or some
sort to the mount that the whip is on if i understand it, that makes sense.

the roof looks kinda like the following sketch

there is a rail around the back of the roof and then the ladder, which the
two are connected. then there is the ac unit in the middle in the back

```
-----------------------------------
------- |
[] | |= < -- ladder
[AC]| |
[] | |
------- |
-----------------------------------
```

--
Registered Linux User #346565

4176. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 20:20:04 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403151220.1d8db06f@posting.google.com>
Source record: 98298

In a free-space field far from any antennas, the ratio of electrical to magnetic fields, for time-varying fields, is always the same, so in such a field, just as you say, there is no way to separate "man-made noise" from something that we hope might have more information than the noise in it. (But avoid American telecasts when making this comparison...)

However, near the source of the man-made noise, the ratio is likely to be much higher (more electric than magnetic), and it's in that near-field area where the loop may do you some good. That tends to mean that the rejection will be best at low frequencies, typically medium-wave (AM domestic broadcast band) and lower. In general, in the near field of any antenna, you will see E/M ratios that are significantly different from the far-field ratio.

To take advantage of the possible man-made noise rejection, the receiving loop must be properly designed and constructed, and of course the noise must indeed be maily electric-field at your location.

Cheers,
Tom

Toni <ea3fya@hotmail.com> wrote in message
news:<aqgb501mjtthdq5igce8bdll1s3l46i81o@4ax.com>...
> Hi,
>
> I have always been taught that electrical and magnetic RF fields
> went always together. You couldn't produce one without the other
> and vice-versa.
>
> Then I read about mag-loops having better RX noise immunity than
> normal antennas because they react to magnetic fields, whilst
> man-made noise occurs mostly on electrical fields.
>
> ??????
>
> If both fields go together, how can noise be greater in the
> electrical field than in the magnetic one? Does that mean that
> you can effectively produce one without the other?
>
> Taking it further, if you can _receive_ one while rejecting the
> other, then, by the reciprocity law, you should be able to
> produce one without the other.
>
> What is (where am I) wrong?

>
> EA3FYA - Toni

4177. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 20:22:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405610ce_1@corp.newsgroups.com>
Source record: 98299

Jeremy Salch wrote:
> I'm not sure i understand what you mean by a top-hat?
> Do you thing something like this could be used with the body of the
> scredriver antenna mounted horizontally on top of the rv and the Top hat
> mounted close but seperately, making the antenna basically flush with the
> top of the rv ? If that makes any sense.

It would look something like this with a four foot slanted bottom
section:

```
6'x14' hardward cloth top hat
+---screwdriver coil---+---================================
/ X X X
4' / X X non-conductive supports X
___/_____X_____________________X___________________________________X
Top of RV
```

The highest current would be flowing through the 4' slanted section
which is good. That four foot figure is arbitrary. Make it as tall
as is feasible. If it were me, and the top of the RV is 'z' ft. from
the ground, I would make the base as long as is legal, but that's
just me.

This is similar to a $20 junk box antenna with which I tied a 75m CA
shootout for top honors against top-of-the-line (expensive) bugcatcatchers
and screwdrivers. My loading coil and top hat were horizontal, as above.
My base was an 8 foot whip slanting from my trailer hitch up to an
elevation of about 12 feet above ground.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4178. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 20:28:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40561211_1@corp.newsgroups.com>
Source record: 98300

Jeremy Salch wrote:
> Ok 3 feet would be a bit difficult... this RV is a 1990 Airex by Rexhall..
> and it is 14ish feet tall.

Great goobs of goose greese, that's a tall RV. Are you sure it's not
an 18-wheeler? :-) Any chance of mounting your antenna on the front
bumper? Do you have a hood? Some hams use hamsticks on a mag mount
on the hood.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4179. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 20:55:27 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c3557u$23fsqp$6@ID-225834.news.uni-berlin.de>
Source record: 98301

Cecil Moore wrote:
Haha

well the entire thing is fiberglass.. and there is no bumper to speak of...
its a difficult job to mount anything to this guy

> Jeremy Salch wrote:
>> Ok 3 feet would be a bit difficult... this RV is a 1990 Airex by
>> Rexhall.. and it is 14ish feet tall.
>
> Great goobs of goose greese, that's a tall RV. Are you sure it's not
> an 18-wheeler? :-) Any chance of mounting your antenna on the front
> bumper? Do you have a hood? Some hams use hamsticks on a mag mount
> on the hood.

--
Registered Linux User #346565

4180. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 22:09:10 UTC
From: Eric Oyen - N7ZZT <n7zzt@127.0.0.1>
Message-ID: <pan.2004.03.15.22.09.09.947229@127.0.0.1>
Source record: 98302
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna,rec.radio.amateur.misc

On Sun, 29 Feb 2004 09:30:30 -0500, Mitch Dickson wrote:

>
>
>> >From ARRL Headquarters
>> Newington CT January 20, 2004
>> To all radio amateurs
>>
>> SB QST ARL ARLB003
>> ARLB003 ARRL to Propose New Entry-Level License, Code-Free HF Access
>>
>> The ARRL will ask the FCC to create a new entry-level Amateur Radio
>> license that would include HF phone privileges without requiring a Morse
>> code test.
>
> Isn't that "Special"!!!!!! I can hardly wait to be in the middle of a
> good QRP QSO and hear some CBer who thinks he is a ham blair in with "Is
> the channel in use?"
well, it is common courtesy to at least ask "is the frequency in use" and
then wait a few minutes for a reply. I do so on some of the 2 meter
repeaters here in Phoenix. I give me call, ask if the frequency is in use
and wait 2 minutes. no reply, I go ahead and make my call.

also you, of all people, should realize that not everyone is going to have
good equipment or a hot location when it comes to propogation. So, give
the guy a break, even is he is 'Brand new" to the hobby. attitudes such as
your tend to do mare harm than good.

>
> It is nice to know that the good friends at ARRL sold us out! Wonder what
> 30 pieces of silver will buy these days? Apparently if you are a
> corporation, it will buy you the priviledge to destroy ham radio! Heck,
> why require a license at all? That seems like such a bother. Why not
> just make up a call and get you a radio and jump in "Good Buddy"? I'll
> bet that for 50 bucks, the "board" at ARRL will back you!
well, you don't like it? petition the FCC with a proposal then wait the
required number of days/weeks to get it to an RFC (notice of proposed
rulemaking). Try to operate outside of that system, and you will be
ignored (one lone voice in the crowd kid of thing). Use the system, and
you will be surprised at what you CAN get done.

Just my thoughts (having been there and done that...).

DE N7ZZT
Phoenix, Az

--
the difference between intelligence and stupidity is that intelligence
has its limits.

4181. Degen Designs Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 22:25:40 UTC
From: G&R <spam@limbo.hell>
Message-ID: <z3q5c.2620$QY2.94233@news20.bellglobal.com>
Source record: 98303

We updated our site again.

www.degendesigns.com

Thank you for taking the time to look at our products.

73,
Guenther VE3CVS
info@degendesigns.com

4182. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-15 23:37:42 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <867jxln0l5.fsf@duchess.twilley.org>
Source record: 98304

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Tam" == t-tammaru <Tam> writes:

Tam> Have you determined that the radio puts out the same power on SSB
Tam> (whistle) as when you tune up (on CW?) ?

Jack> No, but I'm not really concerned about SSB versus CW -- I'll
Jack> operate CW if that's what it takes, and it'll be incentive to
Jack> finally learn.

Tam> That's what I am concerened about. You may have a bad mic, or
Tam> just not modulating due to some failure. When I wasn't able to
Tam> get out, I could alwayds talk to locals. Try CW/carrier with your
Tam> friend.

I've tried just keying up and I could be heard a mile away, but not
twenty.

Tam> He doesn't have to know CW if you are on the phone and he
Tam> knows your frequency. I would do it on 10m, away from anybody
Tam> else. You know you can get 20 miles on CB with 5W, and you have
Tam> 100.

Excellent point.

Tam> Tam/WB2TT

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAVj5KGPFSfAB/ezgRAqwUAKD1H78q6/xrXD5Nn3LS9noF+CQZ2QCg3GOI
cWQRh6xwWdu1tY/dCsUvh4o=
=03FT
-----END PGP SIGNATURE-----
```

4183. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 00:22:46 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <JOCdnZDGef1N1cvdRVn-jg@comcast.com>
Source record: 98305

Keep us posted as to what you find out. We could try a sched if it works at all. I have a lot of free long distance on my cell phone for coordination. I am in NJ.

Tam/WB2TT

There is no zero or dollar sign in comcast.

4184. Shortened 2m yagi elements

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 00:27:32 UTC
From: George <look@signature_to.reply>
Message-ID: <URr5c.42156$aT1.30688@newsread1.news.pas.earthlink.net>
Source record: 98306

Hi all. I'm trying to design a very small 2m yagi.

Using EZNEC 3.0 I have come up with a simple full-size 2 element yagi for 144 MHz with approx 3 ft long elements and good pattern. However I need to shorten the elements, hopefully to around 1 foot if possible.

I assume the best way to shorten the elements is by helically winding them.

Is there software or design info available that will let me calculate performance (efficiency, element impedances for matching, and far field patterns) with physically shortened elements?

Thanks in advance.

George, K6GW

--
Email replies to:

4185. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 02:16:17 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403151816.3c8c8fa2@posting.google.com>
Source record: 98307

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40560823_1@corp.newsgroups.com>...
> Dr. Slick wrote:
> > Sounds like a load of bullsh*t to me. Assuming the man-made
> > noise is still a propagating EM wave, how can they not have an
> > electric field?
>
> The basic question is probably: Does an incoming EM wave couple
> more of its magnetic field than its electric field into a small
> loop (magnetic) antenna?

Well i found this site:

http://home.datacomm.ch/hb9abx/loop1-e.htm

Which says that the loop antenna will perform better than a
dipole when close to the ground plane. But this doesn't prove that
man-made noise doesn't have an electric field component.

S.

4186. Re: 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 02:33:57 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <plt5c.19179$JL2.233796@attbi_s03>
Source record: 98308

When Art used a combination loop dipole as a three element form of Yagi it was really an error as he has lapsed back into wavelength style thinking where as the loop/dipole were coupled elements that formed a collinear array which obviosly could not be used succefully in this arrangement. Art then changed the beam aproach by removing the capacitance from the element loops and then coupled the loops in series form with the dipoles attached which did not require a specified spacing between the elements which then formed a nice beam via close coupling. The beam was fed via a delta feed but Art wanted a broader frequency range. He did this by feeding the coupled array with a separate dipole with a delta feed and placed this close to and parallel to the leading dipole /loop which formed a capacitive coupling to the antenna array. What happened here is that energy was fed to the delta feed dipole and then the energy travelled along the dipole and then transfered to the antenna array at the point of best match. This broadened the frequency span of the array in a similar way to varying the connection point of a delta fed antenna such that the operating frequency even when changed was at the array resonant point. So upto now Art had made a loop/yagi dipole with a ladder type loop that could be used in excess of one octave as well as making a coupled array with a moveable resonance but with the declining sunspot cycle comming decided to work on a 160 meter dipole. He made the element as long as possible and then added the loop with a variable capacitor, he also fed the dipole/loop antenna with a capacitive coupled delta fed dipole that also contained a variable capacitor and then realised that if he added a variable inductance to the loop dipole he would in reality be duplicating the 'T' circuit that was used as a inbuilt tuner in a solid state tranciever where he could disconnect the 'T' circuit in the radio and use the controls to control both vaiable capacitors such that the input impedance would always be resistive regardless of the spacing of the former capacitive coupling which was now an inductive coupling. Immediately it was seen that if the capacitances were made as small as possible (2 pF or less)and left fixed, together with an ideal spacing between the feed and the combo dipole the band pass of the antenna was around 5 to 7 Khz and could be moved anywhere on the band by just varying the inductance. Varying the inductance was done quite easily by the addition of a variometer to the main inductance. The antenna worked extremely well at around 50 watts in the horizontal position together with a few db down on the sides. Since Arts tower was a fold over he was also able to operate the antenna in the vertical position with a low operating angle because the antenna being collinear in form was less dependent on ground conditions or the need for ground radials.
Attacks can now begin ,.....the next report will detail what the computor says about its characteristics on 160M and what an overlay on a beverage pattern shows which will surprise many plus details how the antenna can be reformed to provide a cluster of radiators and confirm again that one could

have a antenna array
that is not controlled by wavelength, with a high Q bandpass that not only
was moveable but always operated at a resonant point and where the delta
feed was devoid of radiation i.e. lossless feed and match.
Still going......
Art Unin KB9MZ.........XG
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
> i
>
>
>
>
>
>
>
>
>
>
>
>
>
>
> i

4187. LMR400 connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 02:51:07 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <vYt5c.4641$GQ3.1812@newsread3.news.atl.earthlink.net>
Source record: 98309

I have some LMR400 and it seems like a standard
PL259 will work, but not quite as mechanically
strong as it would be on RG-8,. i.e., the shield does not
fit real snugly like it would on RG-8. Is there something
else that is used for LMR400 or is it just the standard
PL259 ?

Doug N4IJ

4188. Dish Positioning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 04:06:44 UTC
From: Book <book16@optusnet.com.au>
Message-ID: <40567d53$0$3956$afc38c87@news.optusnet.com.au>
Source record: 98310

I have a 3m solid metal dish set up and im looking for a way to point it. I've already worked out something for the Az. direction. But I'm looking for some ideas on how to move it in elevation. I was thinking linear actuator, but if you look at this diagram,

http://members.optusnet.com.au/book16/dish.jpg

you'll see why I'm a little concerned about loads.

Any throughts appreciated,

--
Book

4189. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 04:19:45 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4056809d_8@corp.newsgroups.com>
Source record: 98311

Dr. Slick wrote:
> Which says that the loop antenna will perform better than a
> dipole when close to the ground plane. But this doesn't prove that
> man-made noise doesn't have an electric field component.

Isn't it supposed to be just the opposite? - the local noise has
a high E-field component and a low H-field component?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4190. Re: radio information

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 04:31:25 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c35vut$90o4$1@news3.infoave.net>
Source record: 98312

115 to 156 Mhz 30 watt transmitter.

I can't remember the urt number, but thnk it may be URT-7. Been a lot of
years since I fooled with one.

"WJDI" <wjdi@hvc.rr.com> wrote in message
news:Ln13c.26596$Wo2.12145@twister.nyc.rr.com...
> Hi, Did anyone out there hear of a Navy radio transmitter called
> a " TED " or (T.E.D.) Please email me at : wjdi@hvc.rr.com
> thanks Dave Schneider
>
>

4191. Re: Choosing the Dangle Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 04:38:00 UTC
From: W4JLE <w4jle@pbtcomm.net>
Message-ID: <c360b9$90ue$1@news3.infoave.net>
Source record: 98313

Chapter 7 of Krus and Meatlicker 1953 p. 179 states that the angle of the dangle is equal to the heat of the meat, providing the mass of the ass is constant.

The formuli, as stated by you , could result in an answer as much as 71.63542 dB off!

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:40539d9a$1_3@corp.newsgroups.com...
> Ed Price wrote:
> > The angle of the dangle is proportional to the mass of the ass times the
> > heat of the meat.
>
> Whatever happened to the "cube of the root"?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4192. Re: DFing info wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 04:59:16 UTC
From: Ray Gaschk <rgaschk@astound.net>
Message-ID: <c361jooau1@news.astound.net>
Source record: 98314

Thatcher,

You found the right guy, I designed that antenna.

Remember, this is a log periodic antenna, all elements are active at all times. There is no one elment used for feeding the antenna. The support booms form a 50 ohm feedline and when transmitting, RF travels from the connector to the elements closest to resonance. When transmitting on the low end of the 2M band the longest elements carry the most current, and when transmitting on the high end of the band the shorter elements are most active, but all elements contribute to the performance at all frequencies..

Many people use them for DFing, and find them easy to use because of their small size and relatively high gain and directivity.

If you are new to DFing, you may be overdriving your receiver, so it is important to learn as much as possible about DFing techniques. Reduce the signal to the receiver
by the use of attenuators, but best is to take a class in DFing and read and discuss techniques with your fellow Hams. When in a high signal strength environment, some receivers perform poorly because of inadequate shielding. The signal bypasses the RF connector and enters the receiver by way of the component board.

I received a request for information on how to handle the antenna, and will take some pictures and send them to you and the other owner.

If you are not satisfied with the antenna for any reason, it is waranteed, we will buy it back from you.

I will try to help you use the antenna for DFing, please ask more questions, anything you are not clear about, just ask. There is a Ham living West of our location who uses our antennas in his class on DFing, and if you would like I
can ask his permission to give you his e-mail address and you can communicate with him directly.

Best wishes de ray, w6fya for Elk Antennas

If you are going to use it
"thatcher" <thatc4@net.com> wrote in message
news:c32qn701a1n@enews3.newsguy.com...
> I bought a ELK log periodic dual band antenna. VHF/UHF 5 elements.
>
> What are some good DFing techniques?
>
> How much distance should be between my body and the antenna?

>
> This ELK antenna is fed near the reflector. Whats up with that?
>
> It says it has 20 db of front to back but I sure can't see too much
> difference while pointing and not pointing at repeaters.
>
> Where is a good place to get attenutors.
>
> Should I have bought a different antenna for DFing?

4193. Re: LMR400 connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 05:44:27 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c3647r$234kfg$3@ID-225834.news.uni-berlin.de>
Source record: 98315

Douglas Snowden wrote:

> I have some LMR400 and it seems like a standard
> PL259 will work, but not quite as mechanically
> strong as it would be on RG-8,. i.e., the shield does not
> fit real snugly like it would on RG-8. Is there something
> else that is used for LMR400 or is it just the standard
> PL259 ?
>
> Doug N4IJ

A N-Type connector makes a mechanically strong connection to the coax.

--
Registered Linux User #346565

4194. Re: LMR400 connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 06:50:43 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <4056A3E7.6070901@get.lost>
Source record: 98316

Douglas Snowden wrote:
> I have some LMR400 and it seems like a standard
> PL259 will work, but not quite as mechanically
> strong as it would be on RG-8,. i.e., the shield does not
> fit real snugly like it would on RG-8. Is there something
> else that is used for LMR400 or is it just the standard
> PL259 ?

Just use some heat shrink tubing to add thickness.

73 ... WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

4195. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 13:42:10 UTC
From: jaroslavlipka@msn.com
Message-ID: <d7855f42.0403160542.1d2491b9@posting.google.com>
Source record: 98317

nm5k@wt.net (Mark Keith) wrote in message
>
> I know from modeling that what he
> describes can work as far as the tuning device being able to tune the
> dipole. "loop/cap/dipole combo. "
> I tuned his 20m loop/dipole thing on all bands 20m-10m. I know the
> exact cap values needed for each band.
> Big deal....
> But it's no different than any other dipole as far as pattern or gain.
> It's no different than using an autotuner at the feed, T match, or
> whatever. His loop and cap is a matching device. Nothing more, nothing
> less.

g'day Keith

When it comes to modeling what you leave out is just as
important as what you put in, some times more so.
My money is still on Art.
Jaro.

4196. What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 14:43:22 UTC
From: "R. Scott" <washingtonhamTHREAD@yahoo.com>
Message-ID: <4057128A.FBB090F@yahoo.com>
Source record: 98318

I had been using the Stretch Seal stuff. But Im replacing all my coax
and noticed that the Feed for my Beam the seal was all cracked and had
come apart in places (especially the braid side. Ive a can of Liquid
tape and had thought of that.

So how do you guys seal your outside coax ?
--
Rick N7HJ
Everett, Washington
Remove THREAD to reply.

4197. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 15:38:18 UTC
From: Dev Null <bit-bucket@config.com>
Message-ID: <slrnc5e7ra.2bs1.bit-bucket@localhost.config.com>
Source record: 98319

On Tue, 16 Mar 2004 14:43:22 GMT, R. Scott hath writ:
> I had been using the Stretch Seal stuff. But Im replacing all my coax
> and noticed that the Feed for my Beam the seal was all cracked and had
> come apart in places (especially the braid side. Ive a can of Liquid
> tape and had thought of that.
>
> So how do you guys seal your outside coax ?

And, it never occured to you that Google Has The Answer in this group?

4198. Re: Dish Positioning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 15:50:30 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c37hpt$22qmnj$1@ID-225206.news.uni-berlin.de>
Source record: 98326

If you move it in El, it will be off the ecliptic, (dish designed to point at geosync satellites) which means to "see" a point in the sky you may have to track it, or just let it go through the beam as earth turns.

don't know frequency, but assume 3m is about 10 degree BW? then time in antenna beamwidth is 10/360*24= 40 min.
So you would have to adjust every 5 min or so 2 degrees or so.

I know where a bid dish is, big mount, I think it is 5 m, not being used at all, but it was designed to be geosync, easier to make movable that the one that you have, but still but no way to move it, large trucks, and cranes needed.

Seems like you would have to put in a balanced pivot point for EL. to get the loads off of the mover arm. New type of base then.

"Book" <book16@optusnet.com.au> wrote in message
news:40567d53$0$3956$afc38c87@news.optusnet.com.au...
> I have a 3m solid metal dish set up and im looking for a way to point
> it. I've already worked out something for the Az. direction. But I'm
> looking for some ideas on how to move it in elevation. I was thinking
> linear actuator, but if you look at this diagram,
>
> http://members.optusnet.com.au/book16/dish.jpg
>
> you'll see why I'm a little concerned about loads.
>
> Any throughts appreciated,
>
> --
> Book

4199. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 16:01:22 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <j29e50pn14puh451rp5m7aa4gksucbajkr@4ax.com>
Source record: 98321

On Tue, 16 Mar 2004 14:43:22 GMT, "R. Scott"
<washingtonhamTHREAD@yahoo.com> wrote:

>I had been using the Stretch Seal stuff. But Im replacing all my coax
>and noticed that the Feed for my Beam the seal was all cracked and had
>come apart in places (especially the braid side. Ive a can of Liquid
>tape and had thought of that.
>
>So how do you guys seal your outside coax ?

GE silicon Kitchen & Bath sealant from the hardware store.

Bob
k5qwg

4200. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 16:02:58 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <40572531.6010800@frontiernet.net>
Source record: 98320

Dev Null wrote:
> On Tue, 16 Mar 2004 14:43:22 GMT, R. Scott hath writ:
>
...
>>
>>So how do you guys seal your outside coax ?
>
>
> And, it never occured to you that Google Has The Answer in this group?

Heaven forbid we actually start a discussion by asking each other questions.

-W8LNA

4201. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 16:44:38 UTC
From: Eskay <sieb_kNOS@PAMyahoo.ca>
Message-ID: <1ozeppv1ffrtn$.17vai8ksu2n9e$.dlg@40tude.net>
Source record: 98322

On Tue, 16 Mar 2004 10:01:22 -0600, Bob Miller wrote:

> On Tue, 16 Mar 2004 14:43:22 GMT, "R. Scott"
> <washingtonhamTHREAD@yahoo.com> wrote:
>
>>I had been using the Stretch Seal stuff. But Im replacing all my coax
>>and noticed that the Feed for my Beam the seal was all cracked and had
>>come apart in places (especially the braid side. Ive a can of Liquid
>>tape and had thought of that.
>>
>>So how do you guys seal your outside coax ?
>
> GE silicon Kitchen & Bath sealant from the hardware store.
>
> Bob
> k5qwg

Not considered a good choice,If it smells of vineger then I would stay away
from it.There are better choices, consult a Ham Antenna book.
Eskay,,VE3JUA.

4202. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 16:50:30 UTC
From: "R. Scott" <washingtonhamTHREAD@yahoo.com>
Message-ID: <40573056.216CFD4C@yahoo.com>
Source record: 98324

> And, it never occured to you that Google Has The Answer in this group?

I can google all day, but what fun would that be. Its always nice to
chat with hams once in a while. And there is a big difference in
Looking up information and asking people what they use. That way
you get first hand what has and hasnt worked. Also googling might
bring up old information, where someone who has found something new but
has not posted.

Climb out from under your bridge. See the sunshine, smile, greet people
you might find it does a world of good for your disposition. Which
right
now seems closer to billy goat gruff than homosapein.

--
Rick
Everett, Washington
Remove THREAD to reply.

4203. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 16:51:53 UTC
From: "R. Scott" <washingtonhamTHREAD@yahoo.com>
Message-ID: <405730A9.A35E77D0@yahoo.com>
Source record: 98323

> GE silicon Kitchen & Bath sealant from the hardware store.
>
> Bob
> k5qwg

I had never thought of using that, seems like some good stuff. How about
corrosive properties? Is there any? I know the old RTV we had in the
Navy was quite popular too, but found to be corrosive later.

Thanks
--
Rick N7HJ
Everett, Washington
Remove THREAD to reply.

4204. Re: Dish Positioning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 18:04:50 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <B7WdnWlvjvEm3MrdRVn-vA@comcast.com>
Source record: 98325

"Book" <book16@optusnet.com.au> wrote in message
news:40567d53$0$3956$afc38c87@news.optusnet.com.au...
> I have a 3m solid metal dish set up and im looking for a way to point
> it. I've already worked out something for the Az. direction. But I'm
> looking for some ideas on how to move it in elevation. I was thinking
> linear actuator, but if you look at this diagram,
>
> http://members.optusnet.com.au/book16/dish.jpg
>
> you'll see why I'm a little concerned about loads.
>
> Any throughts appreciated,

Counterweight?
Spring?
Multiple actuators?

4205. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 18:53:08 UTC
From: kludge@panix.com
Message-ID: <c37iek$g15$1@xuxa.iecc.com>
Source record: 98328
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

tommyknocker <tomynokr@uucp.hell> wrote:
>Forget about getting an atomic clock to set in Hawaii. The signal is
>simply too weak. Atomic Time (who I bought my dual time clock from) says
>that it helps if you point the antenna (apparently they just use ferrite
>rod antennas-just like in a cheap transistor radio-to recieve) towards
>Fort Collins, which is due east of my QTH.

Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
On AM car radios, tape recorders, sometimes even rice cookers.
--scott

--
"C'est un Nagra. C'est suisse, et tres, tres precis."

4206. Re: hf antenna for car

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 19:00:08 UTC
From: luke <luke@nospam.com>
Message-ID: <40574EB7.348E2250@nospam.com>
Source record: 98327

Not sure what bands you like to use but

I like the little tarheel. Good reviews
at http://www.eham.net in review section.

http://www.tarheelantennas.com/Little%20Tarheel.htm

luke

Bruce wrote:

> Iam getting ready to put a icom-706 in my car
> and would like some input on what antenna to use.

4207. Re: LMR400 connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 19:16:16 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <udke50l1aaj16ktmdq443prk65g91b8rdh@4ax.com>
Source record: 98330

On Tue, 16 Mar 2004 06:50:43 GMT, Zoran Brlecic <...WA7AA...@get.lost>
wrote:

>Douglas Snowden wrote:
>> I have some LMR400 and it seems like a standard
>> PL259 will work, but not quite as mechanically
>> strong as it would be on RG-8,. i.e., the shield does not
>> fit real snugly like it would on RG-8. Is there something
>> else that is used for LMR400 or is it just the standard
>> PL259 ?
>
>
>Just use some heat shrink tubing to add thickness.

Make that "flooded" heat shrink.
It's available from most electrical supply houses in either one meter,
or 3 foot lengths (forget which but the difference is small).
The cost is about the same as a *small* package of heat shrink tubing
at radio shack.

When you get done you will have one strong connection.

I use LMR400 exclusively and I never noted the connectors fitting
loosely.

I use both N connectors and PL-259s.
BTW, the N connectors come with flooded heat shrink.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>73 ... WA7AA

4208. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 19:17:35 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <2lke50tu7b8j6bj5ujg9ra3hq7nehgh918@4ax.com>
Source record: 98331

On Tue, 16 Mar 2004 14:43:22 GMT, "R. Scott"
<washingtonhamTHREAD@yahoo.com> wrote:

>I had been using the Stretch Seal stuff. But Im replacing all my coax
>and noticed that the Feed for my Beam the seal was all cracked and had
>come apart in places (especially the braid side. Ive a can of Liquid
>tape and had thought of that.
>
>So how do you guys seal your outside coax ?

I use liquid electrical tape.

I also use flooded heat shrink tubing for a really good seal where
applicable.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

4209. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 19:18:40 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c37jvc$24pvqa$1@ID-225206.news.uni-berlin.de>
Source record: 98329

Most all the RTVs have an acid in them, GE makes one that is safe for
electronics, no acid.

Best stuff is that black tar like stuff that comes with a paper backing that
comes with
the bigger connectors called Vapor Wrap by Decibel Products. Put on over the
entire connector and part of the coax,
then tape it up and black tie wraps to keep the tape on. Good for 10+ years.
It is what the Commercial guys use.

"R. Scott" <washingtonhamTHREAD@yahoo.com> wrote in message
news:405730A9.A35E77D0@yahoo.com...
> > GE silicon Kitchen & Bath sealant from the hardware store.
> >
> > Bob
> > k5qwg
>
> I had never thought of using that, seems like some good stuff. How
> about
> corrosive properties? Is there any? I know the old RTV we had in the
> Navy was quite popular too, but found to be corrosive later.
>
> Thanks
> --
> Rick N7HJ
> Everett, Washington
> Remove THREAD to reply.

4210. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 20:29:57 UTC
From: "R. Scott" <washingtonhamTHREAD@yahoo.com>
Message-ID: <405763C5.ED32C6A7@yahoo.com>
Source record: 98332

> Best stuff is that black tar like stuff that comes with a paper backing that
> comes with
> the bigger connectors called Vapor Wrap by Decibel Products. Put on over the
> entire connector and part of the coax,
> then tape it up and black tie wraps to keep the tape on. Good for 10+ years.
> It is what the Commercial guys use.
>
Where might i find it, No local ham stores around here anymore? Is it
available elsewhere.

Thanks

Rick N7HJ

4211. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 20:44:47 UTC
From: Dave <noone@nowhere.com>
Message-ID: <uu6dnRZlnofY-srdRVn-gw@crocker.com>
Source record: 98333

"Bill Turner" <noway@nohow.com> wrote in message
news:3fce505979lukhs6fiut6rjiq60kt8509j@4ax.com...
> On Tue, 16 Mar 2004 14:43:22 GMT, "R. Scott"
> <washingtonhamTHREAD@yahoo.com> wrote:
>
> >So how do you guys seal your outside coax ?
>
> ----------
>
> I use a product called Coax-Seal, available from most ham dealers. It
> remains pliant and is easily removable even after years outside.
>

save the big bucks and buy duct seal by the pound from a local electrical supplier. but which ever one you use cover it with a layer of electrical tape to keep it from the sun and pressed into the cracks well. some people put a layer of tape on first, then the seal, then another layer of tape to make it easier to remove.

one fair warning... neither of them will stick if you get the common silicone dielectric grease on the outside of the connector... keep that stuff on the inside and off your hands or it just won't seal.

and as others have probably pointed out stay away from the silicone rubber caulks and glass sealants, those usually give off an acid while curing (the vinegar smell) that can etch the connector, and they just don't stay very well sealed when coated on a connector.

4212. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 21:11:59 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403161311.60ac2547@posting.google.com>
Source record: 98334

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4056809d_8@corp.newsgroups.com>...
> Dr. Slick wrote:
> > Which says that the loop antenna will perform better than a
> > dipole when close to the ground plane. But this doesn't prove that
> > man-made noise doesn't have an electric field component.
>
> Isn't it supposed to be just the opposite? - the local noise has
> a high E-field component and a low H-field component?

I suppose that's what the original poster claims.

This seems to have more to do with polarization than whether or
not man-made noise has a stronger E-field component in the near field.

S.

4213. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 21:14:27 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403161314.51c6bc40@posting.google.com>
Source record: 98335

"R. Scott" <washingtonhamTHREAD@yahoo.com> wrote in message
news:<4057128A.FBB090F@yahoo.com>...
> I had been using the Stretch Seal stuff. But Im replacing all my coax
> and noticed that the Feed for my Beam the seal was all cracked and had
> come apart in places (especially the braid side. Ive a can of Liquid
> tape and had thought of that.
>
> So how do you guys seal your outside coax ?

Go to Radio Shack, they have something called "Coax-Seal" or
something similar, that is a roll of tar-like substance that never
gets hard or dries out. It's always a bit sticky, and works great.

Slick

4214. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 21:15:51 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <_d6dndqCB4cV88rd4p2dnA@comcast.com>
Source record: 98336

On 16-Mar-2004, Roger Halstead <Delete-Invallid.groups@tm.net> wrote:

> On Tue, 16 Mar 2004 14:43:22 GMT, "R. Scott"
> <washingtonhamTHREAD@yahoo.com> wrote:
>
> >I had been using the Stretch Seal stuff. But Im replacing all my coax
> >and noticed that the Feed for my Beam the seal was all cracked and had
> >come apart in places (especially the braid side. Ive a can of Liquid
> >tape and had thought of that.
> >
> >So how do you guys seal your outside coax ?
>
> I use liquid electrical tape.

I'll second this. I have been using StarBrite Liquid Electrical Tape outdoors for nine years. It
doesn't crack or deteriorate. Connectors have been bright and shiny after three years - (about the
longest that a ham antenna stays of interest). I also use it on the tail light connections on my
boat trailer. Readily available at hardware and home improvement stores.

Ken Fowler, KO6NO

4215. Re: Anybody tried one of these antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 21:45:39 UTC
From: Mike Coslo <mjc5@psu.edu>
Message-ID: <40577583.10105@psu.edu>
Source record: 98337

Edmund H. Ramm wrote:
> In <5p95c.3793$GQ3.2288@newsread3.news.atl.earthlink.net> "David L Thompson"
<thompson@mindspring.com> writes:
>
>
>>[...]
>>The OCF is the latest version of an old antenna called the windom for
>>W8GZ (the inventor).
>>[...]
>
>
> Loren Windom must be getting tired of this. His antenna is single
> wire fed against ground. An OCFD is not a Windom antenna.
>
> 73, Eddi ._._.

haven't you ever used one of those half-wave G5RV's? 8^)

- Mike KB3EIA -

4216. anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 22:17:47 UTC
From: Dan Jacobson <jidanni@jidanni.org>
Message-ID: <874qsol9mc.fsf@jidanni.org>
Source record: 98342
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

http://www.rfa.org/front/sira/man.html apparently is a brilliant home brew anti-jamming antenna.

I asked them to make an English page along with the Chinese page, but email failed.

4217. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 22:18:21 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <dvue50hs94qr2kv46s81lialdjfaecm698@4ax.com>
Source record: 98338

On Tue, 16 Mar 2004 11:44:38 -0500, Eskay <sieb_kNOS@PAMyahoo.ca>
wrote:

>On Tue, 16 Mar 2004 10:01:22 -0600, Bob Miller wrote:
>
>> On Tue, 16 Mar 2004 14:43:22 GMT, "R. Scott"
>> <washingtonhamTHREAD@yahoo.com> wrote:
>>
>>>I had been using the Stretch Seal stuff. But Im replacing all my coax
>>>and noticed that the Feed for my Beam the seal was all cracked and had
>>>come apart in places (especially the braid side. Ive a can of Liquid
>>>tape and had thought of that.
>>>
>>>So how do you guys seal your outside coax ?
>>
>> GE silicon Kitchen & Bath sealant from the hardware store.
>>
>> Bob
>> k5qwg
>
>Not considered a good choice,If it smells of vineger then I would stay away
>from it.There are better choices, consult a Ham Antenna book.
> Eskay,,VE3JUA.
>

It's been sealing the coax attached to my j-pole -- no degradation I
can see in being used outside for 6 months.

Of course, one can use that black, sticky coax wrap that's available
from the ham stores and such, but the Kitchen & Bath silicon acrylic
stuff that dries clear (Max 5000 by GE) does fine for down and dirty
projects.

Bob
k5qwg

4218. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 22:29:53 UTC
From: YODAR <yodar1@cfl.rr.com>
Message-ID: <BdL5c.299879$Po1.220766@twister.tampabay.rr.com>
Source record: 98339

There is a rubber based sealant labeled for marine use, UV resisitnt, called GOOP Marine...GOOP is a group of rubber products in a tube labeled under various names for plumbing, household, automotive applications...end even rebuilding heels and toes of expensive jogging shoes ...hence the name SHOE GOO. It is NOT labeled for electronics applications but it works for my receive antenna-boxes & conectors outside.

It and it's weaker cousin Dow-Corning 3140-RTV sealant, have served me well in Florida against weather...Both flow and are self leveling till they solidify overnight so you'll have to build a "mould-wall" of masking tape or something to control it's flow

Yodar

R. Scott wrote:
> I had been using the Stretch Seal stuff. But Im replacing all my coax
> and noticed that the Feed for my Beam the seal was all cracked and had
> come apart in places (especially the braid side. Ive a can of Liquid
> tape and had thought of that.
>
> So how do you guys seal your outside coax ?

4219. A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 22:41:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c37vqrhoa1@titan.btinternet.com>
Source record: 98341

Copied for interest from another newsgroup.

The performance of a single-transistor pulse (harmonic)-generator is covered in program HARM_GEN now available from website below in a few seconds. Easy to run.

The manner in which the amplitude of the harmonics 1 to 30 vary with frequency and with operating angle (pulse width) are shown.

In general, with a very short pulse width, as the harmonic number increases, the harmonic output level falls fairly slowly and uniformly. But as pulse width (operating angle) increases then some harmonics almost disappear from the spectrum. The program displays harmonic levels in decibels.

Fourier, that great French mathematician/philosopher wuz right! I think he missed the tumbril and Madame guillotine.

Download program HARM_GEN now. It might be useful one day.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

4220. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 22:41:34 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c37vr4$24jibh$1@ID-225206.news.uni-berlin.de>
Source record: 98340

also called VAPOR-BLOC
Try searching on Google for them, should find it
comes in squares about 4 by 5 inches or so.
I don't think they have it at the ham stores.

"R. Scott" <washingtonhamTHREAD@yahoo.com> wrote in message
news:405763C5.ED32C6A7@yahoo.com...
> > Best stuff is that black tar like stuff that comes with a paper backing
that
> > comes with
> > the bigger connectors called Vapor Wrap by Decibel Products. Put on over
the
> > entire connector and part of the coax,
> > then tape it up and black tie wraps to keep the tape on. Good for 10+
years.
> > It is what the Commercial guys use.
> >
> Where might i find it, No local ham stores around here anymore? Is it
> available elsewhere.
>
> Thanks
>
> Rick N7HJ

4221. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 23:39:52 UTC
From: tommyknocker <tomynokr@uucp.hell>
Message-ID: <105f42arr839a8@corp.supernews.com>
Source record: 98343
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Dan Jacobson wrote:

> http://www.rfa.org/front/sira/man.html apparently is a brilliant home
> brew anti-jamming antenna.
>
> I asked them to make an English page along with the Chinese page, but
> email failed.

Couldn't you just run the Chinese text through babelfish or another
online translation service? It will read a little weird but you should
be able to get the general idea.

4222. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 23:43:47 UTC
From: N8KDV <n8kdv@nospam.iserv.net>
Message-ID: <40579133.D6CBE986@nospam.iserv.net>
Source record: 98344
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Dan Jacobson wrote:

> http://www.rfa.org/front/sira/man.html apparently is a brilliant home
> brew anti-jamming antenna.
>
> I asked them to make an English page along with the Chinese page, but
> email failed.

There was some interesting anti jamming antenna projects in some past issues of the WRTH by a fellow named Vollard.

He recently passed away. I'm not sure offhand about which years issue it was featured.

Someone else may know.

Steve
Holland, MI
Drake R7, R8 and R8B

http://www.iserv.net/~n8kdv/dxpage.htm

4223. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 23:47:00 UTC
From: Maximus <nomail@here.com>
Message-ID: <UIM5c.43802$aT1.31978@newsread1.news.pas.earthlink.net>
Source record: 98345
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Isn't that like the plans for the perpetual motion machine <s> ?

"Strength and Honor"

"N8KDV" <n8kdv@nospam.iserv.net> wrote in message
news:40579133.D6CBE986@nospam.iserv.net...
>
>
> Dan Jacobson wrote:
>
> > http://www.rfa.org/front/sira/man.html apparently is a brilliant home
> > brew anti-jamming antenna.
> >
> > I asked them to make an English page along with the Chinese page, but
> > email failed.
>
> There was some interesting anti jamming antenna projects in some past
> issues of the WRTH by a fellow named Vollard.
>
> He recently passed away. I'm not sure offhand about which years issue it
> was featured.
>
> Someone else may know.
>
> Steve
> Holland, MI
> Drake R7, R8 and R8B
>
> http://www.iserv.net/~n8kdv/dxpage.htm
>
>

4224. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-16 23:58:23 UTC
From: JOE <joe77557@hotmail.com>
Message-ID: <a9340e835fe97a5f7fe383ce6d5a8c03@news.meganetnews.com>
Source record: 98348
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

> Couldn't you just run the Chinese text through babelfish or another
> online translation service? It will read a little weird but you should
> be able to get the general idea.

Step 4 as translated by Babelfish - kinda fun!:

4. Evenly puts the radio according to the chart superior appearance on the tin foil, intersects with two bungees crosses the radio fixes on the board. By now, the radio antenna and the second antenna simultaneously were in the vertical glued wood the position. The radio antenna completely pulls out, the second antenna highly should slightly be lower than the radio the antenna. Thus, the system completed.

Justa-lika-dat

4225. Re: cobwebb

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 00:00:31 UTC
From: doc <docwhiteuk@despammed.com>
Message-ID: <885f501e1f34qjrp5nhogib04slleegcng@4ax.com>
Source record: 98346

On Sat, 28 Feb 2004 20:57:15 -0000, "David Browne" <dddd@ddd> wrote:

>hi has any one used this ant, will it tune to 40 meters using atu
>thanks dave browne
>
here is the site
http://www.g3tpw.ukgateway.net/index.html

4226. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 00:16:08 UTC
From: doc <docwhiteuk@despammed.com>
Message-ID: <346f50t1unv3g1r8arvblftvi250l5ohju@4ax.com>
Source record: 98347
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On Wed, 17 Mar 2004 06:17:47 +0800, Dan Jacobson <jidanni@jidanni.org>
wrote:

>http://www.rfa.org/front/sira/man.html apparently is a brilliant home
>brew anti-jamming antenna.
>
>I asked them to make an English page along with the Chinese page, but
>email failed.
here it is in english
http://www.rfa.org/front/sira/

regards
doc

4227. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 00:24:24 UTC
From: N8KDV <n8kdv@nospam.iserv.net>
Message-ID: <40579AB8.AE4DCD31@nospam.iserv.net>
Source record: 98349
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

doc wrote:

> On Wed, 17 Mar 2004 06:17:47 +0800, Dan Jacobson <jidanni@jidanni.org>
> wrote:
>
> >http://www.rfa.org/front/sira/man.html apparently is a brilliant home
> >brew anti-jamming antenna.
> >
> >I asked them to make an English page along with the Chinese page, but
> >email failed.
> here it is in english
> http://www.rfa.org/front/sira/

Would have been nice I suppose if they would have given Villard credit for
the design.

4228. Re: Anybody tried one of these antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 00:37:56 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <E5N5c.27804$SR1.34406@attbi_s04>
Source record: 98350

I have used a Classic 1930s Windom. It's 134 feet long, fed at 48 feet from one end with a single #14 AWG wire. The feed wire was tuned by a MURCH UT-2000A tuner. [Note: the MURCH 2000A is a 1960-1970 KW class roller inductor tuner designed for 1KW AM].

I'll be reinstalling it again as soon as the snow melts here in central NH. [changed QTH last year]

Works quite well on 80/40/30 meters.

Deacon Dave
+ + +

Va4ua wrote:

> I was think of getting one of these.
>
> http://www.dxantennas.com/wst_page5.php
>
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.593 / Virus Database: 376 - Release Date: 21/02/2004
>
>

4229. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 00:39:41 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <h7N5c.27812$SR1.34390@attbi_s04>
Source record: 98351

COAX-SEAL

HRO $3

DD

R. Scott wrote:

> I had been using the Stretch Seal stuff. But Im replacing all my coax
> and noticed that the Feed for my Beam the seal was all cracked and had
> come apart in places (especially the braid side. Ive a can of Liquid
> tape and had thought of that.
>
> So how do you guys seal your outside coax ?

4230. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 01:20:21 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <pJN5c.43922$aT1.41324@newsread1.news.pas.earthlink.net>
Source record: 98352

Hi Cecil -

Let me again thank you for taking the time to respond to my follow-up questions! But since the questions you answered are again somewhat different than the questions I asked, I am going to follow up yet again.

I understand that the monopole pattern is essentially toroidal, and that the long dipole at 30m produces a more complex, lobed pattern. The peaks of those lobes have higher gain than the broad, toroidal pattern of the monopole. No surprises in any of that.

However, neither of these antennas are rotatable. Therefore, there is no guarantee that either or both will always receive incoming signals at the most favorable angles. "Average" gain across a range of angles is therefore very relevant to any comparisons.

If you wouldn't mind exercising your model some more, here are some questions intended to address the "average" gain topic. (I'm stressing model results because the type of numbers requested would be highly impractical to try to measure on the physical antennas.)

1. At what elevation angle X does the monopole show the highest gain, and what is that gain?

2. What is the "average" gain of the dipole, at elevation angle X, taken over the full 360 degrees of azimuth, at one-degree increments? (Note: Gain data points expressed in dB should be converted to linear powers, the linear powers averaged, and then the average linear power converted back to dB, of course. To do otherwise would improperly penalize a lobed pattern (the dipole) that might have one or two minus infinity dB gain values.)

3. If you're still on board with all this, it would also be interesting to know what happens to the elevation angle and gain of the monopole if the number of radials is kicked up to a large number, like 64.

The validity of the above depends in part on equitable assumptions about transmission line losses in the two cases, of course.

73, Ed

4231. Re: cobwebb

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 01:47:07 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4057AD6F.A70834BE@shaw.ca>
Source record: 98353

David Browne wrote:
>
> hi has any one used this ant, will it tune to 40 meters using atu
> thanks dave browne

An ATU will tune almost anything to any band. How effective this will be as an antenna is highly debatable. In the absence of anything else, you can always give it a try on air. Antenna's are very funny things -- you would sometimes be surprised, especially during good signal conditions at which times I have successfully loaded up my toolbox while it was lying on the floor and worked a few stations!

For my first 25 years of hamming I was always in locations where I could not put up a decent antenna. Using random wires and assorted other antennas, very few of which could rightly be called 'decent' antennas, I managed to get out and have a good time on the bands using an ATU and loading anything at hand!

On the other hand, you could always make the cross arms longer and fit a 40 meter element on it. Another alternative would be to use a loaded element.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4232. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 02:00:32 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403161800.59366996@posting.google.com>
Source record: 98354

jaroslavlipka@msn.com (jaroslav lipka) wrote in message
> g'day Keith
>
> When it comes to modeling what you leave out is just as
> important as what you put in, some times more so.
> My money is still on Art.
> Jaro.

To do what?
As far as modeling, I modeled exactly what he told me to. He ok'ed the diagram of the antenna. As a matter of fact I still have it on my server.
http://web.wt.net/~nm5k/loopole.jpg
MK

4233. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 02:36:22 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <NIednRUmPOHUJMrdRVn-vA@comcast.com>
Source record: 98355
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

This antenna has been around for years and the article was originally
published in English. Do a search. I bet it is still out there.

"Dan Jacobson" <jidanni@jidanni.org> wrote in message
news:874qsol9mc.fsf@jidanni.org...
> http://www.rfa.org/front/sira/man.html apparently is a brilliant home
> brew anti-jamming antenna.
>
> I asked them to make an English page along with the Chinese page, but
> email failed.

4234. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 02:40:06 UTC
From: tommyknocker <tomynokr@uucp.hell>
Message-ID: <105fek9iikih9f@corp.supernews.com>
Source record: 98356
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

JOE wrote:

>
> > Couldn't you just run the Chinese text through babelfish or another
> > online translation service? It will read a little weird but you should
> > be able to get the general idea.
>
> Step 4 as translated by Babelfish - kinda fun!:
>
> 4. Evenly puts the radio according to the chart superior appearance on the
> tin foil, intersects with two bungees crosses the radio fixes on the board.
> By now, the radio antenna and the second antenna simultaneously were in the
> vertical glued wood the position. The radio antenna completely pulls out,
> the second antenna highly should slightly be lower than the radio the
> antenna. Thus, the system completed.

Sounds kinky. "I think I'm turning Japanese, I really think so..."

4235. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 02:43:00 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403161843.24ad9e1c@posting.google.com>
Source record: 98357

Jack Twilley <jmt+usenet@twilley.org> wrote in message
news:<868yi39k0c.fsf@duchess.twilley.org>...
> -----BEGIN PGP SIGNED MESSAGE-----
> Hash: SHA1
>
> >>>>> "Tam" == t-tammaru <Tam> writes:
>
> Tam> Jack, Have you determined that the radio is actually putting out
> Tam> 100W? The light bulb test should give some indication.
>
> I have an MFJ Versa Tuner II which has a power meter. It's not
> laboratory certified, but the needle does go all the way up to 100
> when I tune up and transmit.

Well, you know the radio works...
>

>
> I can't get the wire any higher than it is right now at this current
> location. This is pretty much the best I can do, and this little
> antenna already totally fills my yard and the yards of each of my
> neighbors (with their permission). It's a multiband fan dipole with
> three pairs of legs, cut for 40, 20, and 10.

Your antenna is *very* efficient on those three bands, unless you have
coax or connection problems and power is not making it to the antenna.
BTW, the 40 legs will work 15 ok, if you tweak the match with the
tuner...Will be pretty efficient on 15 also as a 1.5 wl dipole.
>
> My current goal is to acquire a noise bridge and see where the antenna
> resonates, then trim the antenna as necessary until it resonates in
> the right places.

Good idea. You shouldn't really need the tuner.

After that, I'll look into feedline length
> modifications as necessary.

Should be unneeded. If coax length radically varies SWR, you need a
1:1 balun or choke to cut radation from the shield.

Hopefully those two approaches will
> resolve my current issue.

Actually, I don't think you have a problem, assuming no coax or
connector problems. Does the receive noise level, and signal levels
sound fairly normal, or dead? I think the main problem is trying to

work locally using ground wave, with an antenna that is poorly suited for that. But, you should usually be able to work 40m in the day, being it's mainly NVIS. 20 miles is a long way for a low horizontal dipole to work locally without the help of skywave. A purely horizontal antenna has no groundwave, if no vertical feedline radiation, etc. It has a space wave, but it's going to be hard to work 20 miles over the noise. If both of you had verticals, it would probably be easy. As far as comparing antennas, all you have to do is use a antenna switch, and see which is best on receive. Operation is reciprical 98.8 % of the time, so a transmit test is unneeded. You should be having no problems working 40m in the day, or even 20m to stateside stuff. 10m local will be very tough, but you should be able to work some skywave. A vertical is much better for 10m local. 20 ft high is high enough to work for medium distance skywave. Maybe not a barnburner, but it should be working for general gov work...I've run many lower than that when camping, and had no problems. If you can't hardly work *anyone*, I would check your connections, and coax , etc. Also, if you use the tuner for now, use the bare minimum inductance to get a usable match. That will help reduce tuner losses, which can climb to 20% or so if too much coil is used.
I would eventually tune the antenna up, and dump the tuner. There is no real need for it, unless you go off far from where you normally have it tuned. IE: work some CW when the antenna is tuned for the fone band. MK

4236. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 02:59:12 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403161859.4e06e8a2@posting.google.com>
Source record: 98358

Jack Twilley <jmt+usenet@twilley.org> wrote in message

BTW, if you have the legs in the same direction, and close together, coupling can be a problem. As one mentioned, always start with the lowest band first, and go up band by band. If you have a coupling problem, it will almost always be one of the higher band legs being effected by a lower band leg. You can usually get a usable match if you vary the wire length. Try to get each band under 2:1 SWR. I run multi leg dipoles here, but I run mine in different directions and have few coupling problems. IE: if I had a 40 dipole braodside E/W, I'd run the 20 dipole N/S. Sometimes if you do have a coupling problem, just moving the higher band leg a few feet can cure the problem. You will almost never see a higher band leg effect a lower band to any great degree. MK

4237. Re: cobwebb

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 03:02:58 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4057BF36.F13CE824@shaw.ca>
Source record: 98359

Irv Finkleman wrote:....

I should have said Load -- I guess it depends on what you call tuning.

What the ATU does is 'match' the transmitter to the load. It does not
'tune' the load. The term 'tuning' and 'loading' are frequently used
interchangeably in the case of an ATU.

This is not intended to start an infinite thread of debating! :-)

Irv VE6BP

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4238. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 03:11:46 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403161911.7753515d@posting.google.com>
Source record: 98360

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4054abcb_6@corp.newsgroups.com>...
> KC1DI wrote:
> > Just curious as to what most of you are using as an antenna on
> > the 30 Meter band?
>
> Actually, my all time favorite antenna is a 40m loop closely coupled
> for supergain. It has 20 dBi gain for 200 degrees of the horizontal.
> It would make my 100 watt transceiver sound like about 10 kilowatts
> and could be scaled for 30m but watch out for complaints that you are
> running illegal power. The EZNEC file can be downloaded from my web
> page below. (TIC disclaimer)

Have you ever actually tried one of those? I ran it thru expecting to
see a real low Z input, but was fairly high for a "supergain" type
scheme. I had to reduce the segment number to run in the demo...I got
26.3 dbi...??? I'm sort of skeptical that those actually live up to
the specs. Seems everyone would be using one...
20+ dbi is a pretty happy amount of gain for a simple loop like that.
Heck, a rhombic would have to be pretty big to do that well. Or takes
many elements for a yagi...Color me pretty skeptical til I see one in
action....:/ MK

4239. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 03:46:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4057ca38$1_5@corp.newsgroups.com>
Source record: 98361

Old Ed wrote:
> 1. At what elevation angle X does the monopole show the highest gain,
> and what is that gain?

Already answered. If I remember right, it was 0 dBi at 26 degrees.

> 2. What is the "average" gain of the dipole, at elevation angle X, taken
> over the full 360 degrees of azimuth, at one-degree increments?

Please define "average" gain. The reason for using a higher gain antenna
is to increase the gain above an "average" monopole. How about if I just
post the radiation pattern on my web page?

I know where I want to QSO to so I turn my 130' dipole broadside to AZ.

> 3. If you're still on board with all this, it would also be interesting to
> know what happens to the elevation angle and gain of the monopole
> if the number of radials is kicked up to a large number, like 64.

It no doubt, goes up. 8 is all I ever installed. Seems to me a waste of
effort to use 32 times the copper that it takes for a dipole and still
not have the gain of a dipole. Incidentally, my 20m-10m dipole is rotatable.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4240. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 03:50:02 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4057cb28_5@corp.newsgroups.com>
Source record: 98362

Mark Keith wrote:

> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Actually, my all time favorite antenna is a 40m loop closely coupled
>>for supergain. It has 20 dBi gain for 200 degrees of the horizontal.
>>It would make my 100 watt transceiver sound like about 10 kilowatts
>>and could be scaled for 30m but watch out for complaints that you are
>>running illegal power. The EZNEC file can be downloaded from my web
>>page below. (TIC disclaimer)
>
> Have you ever actually tried one of those?

Uhhhh Mark, "TIC" stands for Tongue-In-Cheek. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4241. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 05:08:10 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040317000810.20595.00001513@mb-m28.aol.com>
Source record: 98363

>
>4. Evenly puts the radio according to the chart superior appearance on the
>tin foil, intersects with two bungees crosses the radio fixes on the board.
>By now, the radio antenna and the second antenna simultaneously were in the
>vertical glued wood the position. The radio antenna completely pulls out,
>the second antenna highly should slightly be lower than the radio the
>antenna. Thus, the system completed.

Sounds like something from Art's post or patent writeup, no?

BUm

4242. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 05:54:23 UTC
From: Sum Ting Wong <sumtingwong@aol.com>
Message-ID: <espf509oc5brlg361fvfq2cli4s6023mcq@4ax.com>
Source record: 98364

On Tue, 16 Mar 2004 14:43:22 GMT, "R. Scott"
<washingtonhamTHREAD@yahoo.com> wrote:

>So how do you guys seal your outside coax ?

3M (and some others) makes a product called Liquid Tape that works
pretty well. West Marine carries the 3M brand and Home Depot
electrical department carries the less pretentious stuff. It's about
$5.75 in a metal can with applicator.

s.t.w.

4243. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 06:05:50 UTC
From: All Your Base <K-six-AYB@barovelli.com>
Message-ID: <34qf509be494o22lp2i11nr543aq4hhp4c@4ax.com>
Source record: 98365

"R. Scott" <washingtonhamTHREAD@yahoo.com> wrote:

>I had been using the Stretch Seal stuff. But Im replacing all my coax
>and noticed that the Feed for my Beam the seal was all cracked and had
>come apart in places (especially the braid side. Ive a can of Liquid
>tape and had thought of that.
>
>So how do you guys seal your outside coax ?

Not sure what stretch seal is, but I use a couple layers of Scotch LR
followed by more layers of Scotch 88. LR is a rubber strip kind of
tape that sticks to itself, but not your hands, shirt, radio, etc.
This is good enough for above ground locations that do not submerge.
I've peeled the tape off after 4 years in the air and the connection
is dry and shiny.

If it's underground or more wet locations, Bishop Bi Seal is a
professional 'gummy' seal.

I did a bit of searching to see if a retail source was available and
was surprised to find an online catalog version of a vendor I spend
lots of company money at -
http://www.tvcinc.com/catalog/PDFs/Drop/Tape.pdf

I never use RTV on outdoor connections - moisture seeps in, adds to
the acid and rots the connection.

Silicone grease is better, but only if covered by tape or spark plug
boots to keep it on the connection. I only use grease for temporary
setups.

--
"From spongecake to satellites, it's gotta be Krebstar"

4244. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 06:51:08 UTC
From: dplatt@radagast.org
Message-ID: <105ftasl683p827@corp.supernews.com>
Source record: 98367

In article <uu6dnRZlnofY-srdRVn-gw@crocker.com>,
Dave <noone@nowhere.com> wrote:

>and as others have probably pointed out stay away from the silicone rubber
>caulks and glass sealants, those usually give off an acid while curing (the
>vinegar smell) that can etch the connector, and they just don't stay very
>well sealed when coated on a connector.

Our local hardware store has (among others) a black GE silicone
sealant which is specifically labelled as being suitable for use on
metals, and to be noncorrosive. It contains no acetic acid. I've
used it on F connectors on my TV and satellite-dish wiring - it stood
up to sunlight for quite a few years, and when removed did not appear
to have corroded the brass at all.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4245. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 06:58:46 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86hdwo9cyh.fsf@duchess.twilley.org>
Source record: 98368

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Mark" == Mark Keith <nm5k@wt.net> writes:

[...]

Jack> I have an MFJ Versa Tuner II which has a power meter. It's not
Jack> laboratory certified, but the needle does go all the way up to
Jack> 100 when I tune up and transmit.

Mark> Well, you know the radio works...

At least enough to move that needle, or to come in on my friend's
DC-to-daylight receiver as I previously mentioned.

Jack> I can't get the wire any higher than it is right now at this
Jack> current location. This is pretty much the best I can do, and
Jack> this little antenna already totally fills my yard and the yards
Jack> of each of my neighbors (with their permission). It's a
Jack> multiband fan dipole with three pairs of legs, cut for 40, 20,
Jack> and 10.

Mark> Your antenna is *very* efficient on those three bands, unless
Mark> you have coax or connection problems and power is not making it
Mark> to the antenna. BTW, the 40 legs will work 15 ok, if you tweak
Mark> the match with the tuner...Will be pretty efficient on 15 also
Mark> as a 1.5 wl dipole.

Providing the wires haven't stretched too much over the past six
months, or something else that might be wrong. Oh, and yes, all of
the dipole legs are coplanar, and I can't change that, so I'll have to
be careful when I tune them.

Jack> My current goal is to acquire a noise bridge and see where the
Jack> antenna resonates, then trim the antenna as necessary until it
Jack> resonates in the right places.

Mark> Good idea. You shouldn't really need the tuner.

I acquired an MFJ noise bridge with the help of Dave Platt, and here
are the results from some rough measurements at the rig (not at the
antenna!):

Frequency Depth R X Expander Resistance Reactance Impedance
3.750 4 D +25 No 122 28.67 125.32
7.150 2 A/B -25 No 14 -20.17 24.55
14.175 0.5 A/B +175 No 14 30.85 33.88

21.225 4.5 E +150 Yes 903.88 663.97 1121.54
28.850 0.5 A/B -100 No 14 -38.54 41.00

"Depth" is a rough estimate of how deep the null was when the measurement was taken -- my rig has a 0-10 scale and the measurements began when the noise was around 7 or 8, usually. The next three columns were my readings, and the final three columns are the reported values, in ohms.

The first thing to note is that the readings which resulted from the deepest nulls are the readings which provide the most reasonable impedances. This tells me that I'm getting sensible readings, although I do need more practice with the device -- it's terribly twitchy.

I plan on trying to find the resonant frequency of the antenna over the next couple of days, with the goal of shortening (or lengthening) the individual wires this weekend.

Jack> After that, I'll look into feedline length modifications as
Jack> necessary.

Mark> Should be unneeded. If coax length radically varies SWR, you
Mark> need a 1:1 balun or choke to cut radation from the shield.

I have two chokes in my feedline currently -- one about a foot from the antenna feedpoint consisting of eight or nine turns of coax about an air core (a Folger's coffee can was used for wrapping), and one about a foot from the rig consisting of three large type 43 ferrite toroids with three loops of coax passing through all three toroids.

Jack> Hopefully those two approaches will resolve my current issue.

Mark> Actually, I don't think you have a problem, assuming no coax or
Mark> connector problems.

When conditions change for the worse with no obvious reason, I start to consider the possibility that a problem exists. I can't blame sunspots for everything, so I'm looking into how my antenna may have changed since it was installed.

I just completed another test of my antenna. I set the antenna tuner to "bypass" so I could use its SWR meter without affecting the tuning. Then, for each of the five bands I want to use, I tuned up on the dummy load, then switched over to the real antenna and checked the SWR. Here's the results:

Frequency Dummy Antenna
3.750 1:1 infinity
7.150 1:1 2.5:1
14.175 1.05:1 >3:1
21.225 1.1:1 3:1
28.850 1:1 1.9:1

There may be a correlation between these SWR measurements and the impedance values shown above -- the three bands which had lower impedance values also have lower SWR values, but none of them look particularly healthy.

Mark> Does the receive noise level, and signal levels sound fairly
Mark> normal, or dead?

My experience aside from working from this location is limited to Field Day, which isn't really helpful. On some bands I get tons of receive noise, on others I get less.

Mark> I think the main problem is trying to work locally using ground
Mark> wave, with an antenna that is poorly suited for that. But, you
Mark> should usually be able to work 40m in the day, being it's mainly
Mark> NVIS.

NVIS is still a mystery to me, and I need to learn more about it.

Mark> 20 miles is a long way for a low horizontal dipole to work
Mark> locally without the help of skywave. A purely horizontal antenna
Mark> has no groundwave, if no vertical feedline radiation, etc. It
Mark> has a space wave, but it's going to be hard to work 20 miles
Mark> over the noise. If both of you had verticals, it would probably
Mark> be easy. As far as comparing antennas, all you have to do is use
Mark> a antenna switch, and see which is best on receive. Operation is
Mark> reciprical 98.8 % of the time, so a transmit test is unneeded.

I don't have any antenna against which to compare this one, though.

Mark> You should be having no problems working 40m in the day, or even
Mark> 20m to stateside stuff. 10m local will be very tough, but you
Mark> should be able to work some skywave.

I'm currently unemployed, so I've got time for this kind of testing. Tomorrow, I'll try 40, 20, and 10 in the morning (eight to ten), in the afternoon (two to three), at sunset (five to seven), and at night (nine to ten). I'll post the results tomorrow night.

Mark> A vertical is much better for 10m local. 20 ft high is high
Mark> enough to work for medium distance skywave. Maybe not a
Mark> barnburner, but it should be working for general gov work...I've
Mark> run many lower than that when camping, and had no problems. If
Mark> you can't hardly work *anyone*, I would check your connections,
Mark> and coax , etc.

I've already talked about having checked connections. I really think the next step is to change the lengths, but I want to make sure I understand the noise bridge's results first.

Mark> Also, if you use the tuner for now, use the bare minimum
Mark> inductance to get a usable match. That will help reduce tuner
Mark> losses, which can climb to 20% or so if too much coil is used.

I've always done that, but mostly because that's what the antenna
tuner documentation says to do, not because I knew why. :-)

Mark> I would eventually tune the antenna up, and dump the
Mark> tuner. There is no real need for it, unless you go off far from
Mark> where you normally have it tuned. IE: work some CW when the
Mark> antenna is tuned for the fone band. MK

That's exactly why I bought the tuner -- that, and so I'd have an SWR
meter in the shack.

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAV/crGPFSfAB/ezgRAkUwAJ0b4Yci2sq7YZBvlmREkYJqH1tg5ACg8OcV
iv6EbEpaiKJIaeTKMOqe9BI=
=TIDD
-----END PGP SIGNATURE-----

4246. Re: cobwebb

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 07:13:33 UTC
From: david <d.london@ntlworld.com>
Message-ID: <9US5c.552$K51.539@newsfe1-win>
Source record: 98219

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:4057AD6F.A70834BE@shaw.ca...
> David Browne wrote:
> >
> > hi has any one used this ant, will it tune to 40 meters using atu
> > thanks dave browne
>
> An ATU will tune almost anything to any band. How effective this will be
> as an antenna is highly debatable. In the absence of anything else, you
> can always give it a try on air. Antenna's are very funny things -- you
> would sometimes be surprised, especially during good signal conditions at
> which times I have successfully loaded up my toolbox while it was lying on
> the floor and worked a few stations!
>
> For my first 25 years of hamming I was always in locations where I could
not
> put up a decent antenna. Using random wires and assorted other antennas,
very
> few of which could rightly be called 'decent' antennas, I managed to get
out
> and have a good time on the bands using an ATU and loading anything at
hand!
>
> On the other hand, you could always make the cross arms longer and
> fit a 40 meter element on it. Another alternative would be to use a
loaded
> element.
>
> Irv VE6BP
> --
> ---------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ---------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/
> Visit my very special website at http://members.shaw.ca/finkirv4/
> Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at
http://members.shaw.ca/finkirv5/
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

Hi all

On the other hand, you could always make the cross arms longer and
fit a 40 meter element on it. Another alternative would be to use a loaded
element.

done that and it works ok, got the necessary bits from Mr Webb.
the whole lot then needs support to each arm to stop the excessive drooping
or it may/will snap, the arms get very.

david

4247. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 08:10:28 UTC
From: Toni <post_to_usenet@hotmail.com>
Message-ID: <hs1g5013iduhvapdp3q8ge2satn81aq8u3@4ax.com>
Source record: 98220

Ok, so trying to summarize your answers, it seems that

- Electric and Magnetic fields, effectively, go together, but
their ratio may vary, especially at the antenna's near field.

- Cecil Moore says in free space this ratio is the 377 ohms
characteristic impedance. I don't know how to mathematically
check this, but seems reasonable to me.

- It is clear that polarization is an important factor in
rejecting noise. I never doubted that.

So, apparently, it would be clear that

- a reception system capable of discriminating electric/magnetic
fields should be able to reduce unwanted noise from near sources

and

-adding the capability to discriminate different polarizations
would also help with noise from both near and far sources.

Correct?

73,
EA3FYA - Toni

4248. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 08:18:53 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <ee137ed4.0403170018.7906b375@posting.google.com>
Source record: 98221
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

DJ,
.
First - You could have did a Search the Rec.Radio.Shortwave
NewsGroup Message History/Archive ?
.
Search: 'anti' 'jamming' 'antenna'
RESULTS=> http://tinyurl.com/243mr
RFA-English <http://origin.rfaweb.org/front/sira/>
VOA-IBB <http://www.ibb.gov/engineering/antenna1.html>
Mike Villard [K3MT] <http://users.erols.com/k3mt/hla/hla.htm>
.
TOP Seach Listing "Sorted by Relevance"
.
Re: Anti-Jamming Shortwave Antenna System?
... Home Brew" Noise Canceling (Anti-Jamming) Antenna
This Antenna was Originally Designed as a simple and easy
to build Anti-Jamming Antenna for Radio Free ...
rec.radio.shortwave - Oct 26, 2002 by RHF - View Thread (8 articles)
.
- -
.
From: RHF (rhf-mail@usa.com)
Subject: Re: Anti-Jamming Shortwave Antenna System?
Newsgroups: rec.radio.shortwave
Date: 2002-10-26 11:22:18 PST
.
Take a Look at this Hard-Core DX webpage.
"Antenna for Reducing SkyWave Interference"
Written by Dr. O. G. Villard, Jr.
http://www.hard-core-dx.com/nordicdx/antenna/special/reducin1.html
NOTE: This design is for ShortWave "SkyWave" Signal Reception.
.
This is from a prior posting to this NewsGroup.
"Home Brew Noise Canceling (Anti-Jamming) Antenna"
.
~ RHF
=QUOTE=
.
Howdy RHF:
.
Thanks for the link. The featured CTL (Coplanar-Twin-Loop) may be
one I haven't seen as of yet. However, there was one described on
the VOA/IBB website I looked at a couple of years ago.

.
This special and unusual antenna was designed by a heavy duty
research scientist at Stanford Research Institute by O.G. Villard.
If you want a paper to read with substantially more information
on the theory and construction of the antenna authored by the
inventor see the article in QST, 'The Coplanar-Twin-Loop Antenna'
September 1988, pages 29-35.
You can get reprints at ARRL Headquarters.
The paper claims a null depth on sky-wave (yes, that's sky-wave)
signals of around 20 dB.
.
There was a very nice write-up in WRTH describing different
models of the CTL plus construction details but the article
I have doesn't give a publication date. I suspect it was an
issue around 1989 or a couple of years after. It was the issue
that contained a review in 'Equipment Test Bench' on the Grundig
Yacht Boy 220.
.
I've seen references to the antenna in a couple of other
publications as well but I will have to search them out.
.
Do a search for the Coplanar-Twin-Loop' for more info.
You are right, It looks like a simple loop but it isn't.
.
Thanks, you got my interest up to try the CTL described in
the link---it will be awhile before I get to it though.
.
R.
.
= = = RHF <rhf-mail@usa.com> wrote in message
= = = news:3ef6beca.0210090753.65265061@posting.google.com...
.
"Home Brew" Noise Canceling (Anti-Jamming) Antenna
.
This Antenna was Originally Designed as a simple and easy to
build Anti-Jamming Antenna for Radio Free Europe Listeners.
They also Claimed that this Antenna should work with reducing
'man made' local noise.
.
http://origin.rfaweb.org/front/sira/
.
? Has anyone ever built this antenna and tried one of these
to reduce household noise?
.
? Anyone have any Reports of Successes in Helping to Eliminate
Noise around the shack?
.
~ RHF
.
=UN-QUOTE=

.
= = = alins@post.com (Ali N.) wrote in message >
= = = news:<51990af0.0210252310.15352778@posting.google.com>...
>
> The latest issue of Monitoring Times makes reference to the
> following site:
>
> http://www.krsi.net/us-en/antijamming.asp
>
> which claims to present an 'anti-jamming' antenna for use by
> listeners of this > radio station who are located in Iran.
> The actual radio studios are apparently in California,
> broadcasting on 17510 KHz.
>
> Can somebody with a better knowledge of antennas and electronics
> explain the principle behind this design, and whether it will
> actually work!? Are there other types of 'anti-jamming' antennas
> around?
>
> Ali

= = = Dan Jacobson <jidanni@jidanni.org> wrote in message
= = = news:<874qsol9mc.fsf@jidanni.org>...
>
> http://www.rfa.org/front/sira/man.html apparently is a
> brilliant home brew anti-jamming antenna.
>
> I asked them to make an English page along with the Chinese
> page, but email failed.
>
.
- -
.
From: Radioguy (nospam@nospam.com)
Subject: Re: Mike Villard's Magic Anti-Jamming Antenna
for Shortwave Reception
Newsgroups: rec.radio.shortwave
Date: 2000-12-23 18:04:27 PST
.
Take a look at the Interference-Reducing Antenna For Shortwave
Broadcasts on the VOA/IBB WebSite:
[Anti-Jamming Antenna]
http://www.ibb.gov/engineering/antenna1.html
.
- -
.
Mike Villard's Magic Anti-Jamming Antenna for Shortwave Reception
.
K3MT's Villard Anti-Jamming antenna http://users.erols.com/k3mt/hla/hla.htm
.

- -
.
.
iane ~ RHF
.
.
- -
.
= = = From: Dan Jacobson (jidanni@jidanni.org)
= = = Subject: anti-jamming antenna on Radio Free Asia website
= = = Newsgroups: rec.radio.shortwave, rec.radio.amateur.antenna
= = = Date: 2004-03-16 15:19:09 PST

http://www.rfa.org/front/sira/man.html apparently
is a brilliant home brew anti-jamming antenna.

I asked them to make an English page along
with the Chinese page, but email failed.

.

4249. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 08:31:21 UTC
From: stylzmovements2000@yahoo.com
Message-ID: <51eca3ef.0403170031.46a2998b@posting.google.com>
Source record: 98222
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

where is the center of radiation on this antenna ?
where will the strongest field strength be ?

4250. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 08:39:58 UTC
From: Tom Sevart <n2uhc.spam@yahoo.com>
Message-ID: <c38rk7$25vgri$1@ID-52518.news.uni-berlin.de>
Source record: 98366
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

"doc" <docwhiteuk@despammed.com> wrote in message
news:346f50t1unv3g1r8arvblftvi250l5ohju@4ax.com...

> here it is in english
> http://www.rfa.org/front/sira/

Looks like they're simply using directivity to null out the offending signal. Which, as the website states, if the broadcast station and the jammer are both coming from the same direction it won't help. However, it should work quite well for nulling out other QRM such as hets, etc.

--
Tom Sevart N2UHC
Frontenac, KS
http://www.geocities.com/n2uhc

4251. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 09:46:01 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403170146.6479d86a@posting.google.com>
Source record: 98223

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4057cb28_5@corp.newsgroups.com>...
> Mark Keith wrote:

>
> Uhhhh Mark, "TIC" stands for Tongue-In-Cheek. :-)

If it ain't in plain langauge, I probably won't understand it...:(
I don't keep up with many of those...To me, a "tic" is kind of a
jerking motion usually in the facial area...:/ I knew that antenna had
to be a April fool's special of some kind... MK

4252. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 11:31:27 UTC
From: Eric Oyen - N7ZZT <n7zzt@127.0.0.1>
Message-ID: <pan.2004.03.17.11.31.27.421870@127.0.0.1>
Source record: 98224
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On Wed, 17 Mar 2004 06:17:47 +0800, Dan Jacobson wrote:

> http://www.rfa.org/front/sira/man.html apparently is a brilliant home brew
> anti-jamming antenna.
>
> I asked them to make an English page along with the Chinese page, but
> email failed.

hmmmmmmmm.
looks like that isn't going to happen anytime soon. they have an English
page, but its all in BIG-% charset (Chinese).

DE N7ZZT
Phoenix, Arizona

--
the difference between intelligence and stupidity is that intelligence
has its limits.

4253. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 12:48:10 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <c39hdt$25h36q$1@ID-175933.news.uni-berlin.de>
Source record: 98225

Why would varying the pulse width without changing the characteristics of the pulse transitions (rise/fall) affect the harmonic content of the pulse? No bandwidth and no harmonics at all are produced by the constant DC level of the pulse before and after each transition.

Wouldn't the harmonic structure and bandwidth needed to produce/reproduce a pulse be related only to the rise and fall times of that pulse, and the transition shapes (sin^2, etc), and be independent of the width (time) between the transitions?

RF

Visit http://rfry.org for FM broadcast RF system papers.

4254. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 13:57:21 UTC
From: Jim Leder <k8cxm@hotmail.com>
Message-ID: <4058593c$0$52154$a0465688@nnrp.fuse.net>
Source record: 98226

Cecil,

OK, it was a TIC, I know that, but how does it 'fool' EZNEC?

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4057cb28_5@corp.newsgroups.com...
> Mark Keith wrote:
>
> > Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >>Actually, my all time favorite antenna is a 40m loop closely coupled
> >>for supergain. It has 20 dBi gain for 200 degrees of the horizontal.
> >>It would make my 100 watt transceiver sound like about 10 kilowatts
> >>and could be scaled for 30m but watch out for complaints that you are
> >>running illegal power. The EZNEC file can be downloaded from my web
> >>page below. (TIC disclaimer)
> >
> > Have you ever actually tried one of those?
>
> Uhhhh Mark, "TIC" stands for Tongue-In-Cheek. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4255. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 13:59:21 UTC
From: Topaz305RK <2smoore@nemontel.net>
Message-ID: <n-CdnTPgOtUEx8XdRVn-hQ@vnet-inc.com>
Source record: 98227

Firm believer in the Liquid Electricians Tape. Have covered connectors, wire splices, connection points, all sorts of things with the stuff and have yet to have a problem. Sets up nice, never seems to get brittle. Peel it off years later and the connectors, wire, whatever are as shiny as the day it went together.

Just my two cents worth.

4256. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 14:02:22 UTC
From: richardharrison@webtv.net
Message-ID: <3032-40585A6E-641@storefull-3257.bay.webtv.net>
Source record: 98229

Dan Jacobson wrote:
"---apparently is a brilliant home brew anti-jamming antenna."

OK if the jammers all come from the same direction.; probably a rare event. Jammer count on Radio Free Europe channels was at times 50 or more per channel. Many operated right in population centers but these didn`t go very far. Sky wave jammers must operate outside the skip zone and must be far from the target area. A serious jammer likely has sky wave transmitters in multiple locations.

In Europe, listeners in rural areas were outside local jammer range. In early morning and early evening hours, reception of Radio Free Europe was fairly good on some frequencies where propagation was good for RFE to the target area but poor to the target area from Russia.. An important news story or a really good joke would be on lips all over the country almost immediately, carried into populated areas from the burbs where reception was possible during the good hours.

The RFA advice to try another frequency is good to exploit the propagation difference between desirred transmitter and jamming transmitter, especilly during periods when propagation conditions are changing.

More than one null in the reception pattern is probably needed to remove serious jamming efforts.

Best regards, Richard Harrison, KB5WZI

4257. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 14:11:45 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <B0Z5c.28461$JL2.327780@attbi_s03>
Source record: 98228

Toni wrote:
> Ok, so trying to summarize your answers, it seems that
>
> - Electric and Magnetic fields, effectively, go together, but
> their ratio may vary, especially at the antenna's near field.
>
> - Cecil Moore says in free space this ratio is the 377 ohms
> characteristic impedance. I don't know how to mathematically
> check this, but seems reasonable to me.

SNIP

Zo = SQRT[u/e]

where u = permeability of free space
where e = permittivity of free space

4258. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 14:27:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c39n7s$3ak$1@hercules.btinternet.com>
Source record: 98230

"Richard Fry" <rfry@adams.net> wrote in message
news:c39hdt$25h36q$1@ID-175933.news.uni-berlin.de...
> Why would varying the pulse width without changing the characteristics of
> the pulse transitions (rise/fall) affect the harmonic content of the
pulse?
> No bandwidth and no harmonics at all are produced by the constant DC level
> of the pulse before and after each transition.
>
> Wouldn't the harmonic structure and bandwidth needed to produce/reproduce
a
> pulse be related only to the rise and fall times of that pulse, and the
> transition shapes (sin^2, etc), and be independent of the width (time)
> between the transitions?
============================

The shape of the pulse, the width of the pulse, the time interval between pulses, all affect the harmonic frequency spectrum. They act both independently and in conjunction with each other.

The best way to grasp what happens is to calculate the amplitudes of the series of harmonics which result from several different shaped pulses, of different pulse widths, spaced at different intervals.

In particular, you will find that varying the ratio of pulse width to spacing results in some of the harmonics virtually disappearing in amplitude.

You can also graphically reconstruct pulses and waveshapes but excluding harmonics beyond the N'th to see what happens.

You will need a good book which gives the amplitudes and phases of the harmonic sinewave terms in the infinite series of a selection pulse shapes.

Or you can construct a harmonic generator and examine its output with a spectrum analyser.

Fascinating if you have the time to spare.

4259. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 14:31:05 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <40570abb_1@newsfeed.slurp.net>
Source record: 98231

Shoe Goo ... That stuff used for tennis shoe repairs... It seals like
silicone, except it cures all the way through, to the middle, so it's easier
to clean up if you have to take it off...

73,
Mike KI6PR
El Rancho R.F., CA

"R. Scott" wrote
> I had been using the Stretch Seal stuff. But Im replacing all my coax
> and noticed that the Feed for my Beam the seal was all cracked and had
> come apart in places (especially the braid side. Ive a can of Liquid
> tape and had thought of that.
>
> So how do you guys seal your outside coax ?
> --
> Rick N7HJ
> Everett, Washington
> Remove THREAD to reply.

4260. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 14:34:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40586247$1_1@corp.newsgroups.com>
Source record: 98232

Mark Keith wrote:
> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Uhhhh Mark, "TIC" stands for Tongue-In-Cheek. :-)
>
> If it ain't in plain langauge, I probably won't understand it...:(
> I don't keep up with many of those...To me, a "tic" is kind of a
> jerking motion usually in the facial area...:/ I knew that antenna had
> to be a April fool's special of some kind... MK

A "TIC" is a "TLA" and is kind of a jerking motion usually in
the area of the leg (or funny bone).
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4261. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 14:39:30 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40586361$1_1@corp.newsgroups.com>
Source record: 98233

Jim Leder wrote:
> Cecil, OK, it was a TIC, I know that, but how does it 'fool' EZNEC?

It violates the element spacing rules. Very close spacing is not allowed.
I forget the details and stumbled upon it by accident. But that antenna
is really, really a "gain" antenna, radiating a lot more than it's
feedpoint power. :-) I should have waited until April 1.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4262. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 14:44:53 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <c39o8n$24q2mm$1@ID-175933.news.uni-berlin.de>
Source record: 98234

Reg Edwards wrote
> The shape of the pulse, the width of the pulse, the time interval
> between pulses, all affect the harmonic frequency spectrum.
> They act both independently and in conjunction with each other.

Please explain the reason why the bandwidth characteristics needed to generate a single transition from one DC level to another is different than when repeating that same transition any number of times before or after.

RF

4263. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 15:50:15 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <105gsuarv2c0e73@corp.supernews.com>
Source record: 98235

You need a Predator. Do a search for "predator antenna" Made for RVs
and SUVs!

Butch KF5DE

Jeremy Salch wrote:
> Anyone ever setup a screwdriver on a RV and have it work very well ?
>
> I have one installed but it preforms very poorly compared to
> how well it worked on my car.
>
> I think it is not working very well because the entire antenna is next to
> the side of the motorhome.. and on my car.. only maybe the bottom 2 feet
> of it were beside another surface.
>
> I guess another question would be.. does anyone know if it would possibly
> work better if it could be mounted at an angle instead of directly
> vertical?
>
>

4264. Re: Dish Positioning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 16:02:07 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <3E_5c.35405$F9.11352@nwrddc01.gnilink.net>
Source record: 98236

"Book" <book16@optusnet.com.au> wrote in message
news:40567d53$0$3956$afc38c87@news.optusnet.com.au...
> I have a 3m solid metal dish set up and im looking for a way to point
> it. I've already worked out something for the Az. direction. But I'm
> looking for some ideas on how to move it in elevation. I was thinking
> linear actuator, but if you look at this diagram,
>
> http://members.optusnet.com.au/book16/dish.jpg
>
> you'll see why I'm a little concerned about loads.
>
> Any throughts appreciated,
>
>The drawing would appear to be a polar mount- not AZ/EL What are your uses
for the dish- TVRO, EME, amateur birds?
If you truely require Az/EL do a Google search under EME. Also check out
Frank W2UHI site.

Dale W4OP

4265. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 16:14:15 UTC
From: CA was in NJ <cainnj.cjb.net@cainnj.REVERSE_TO_REPLY__SPAMMERS_SHOT_ON_SIGHT>
Message-ID: <c39tgn$kt6$1@xuxa.iecc.com>
Source record: 98241
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Scott Dorsey wrote:

>Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
>On AM car radios, tape recorders, sometimes even rice cookers.

The topic is WWVB, the binary signal. WWVH is the voice signal, which an autosetting clock will not understand.

4266. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 16:14:16 UTC
From: N8KDV <n8kdv@nospam.iserv.net>
Message-ID: <c39tgoktq1@xuxa.iecc.com>
Source record: 98238
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Scott Dorsey wrote:

> tommyknocker <tomynokr@uucp.hell> wrote:
> >Forget about getting an atomic clock to set in Hawaii. The signal is
> >simply too weak. Atomic Time (who I bought my dual time clock from) says
> >that it helps if you point the antenna (apparently they just use ferrite
> >rod antennas-just like in a cheap transistor radio-to recieve) towards
> >Fort Collins, which is due east of my QTH.
>
> Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
> On AM car radios, tape recorders, sometimes even rice cookers.
> --scott

That may be the case Scott, but the 'atomic clocks' they are speaking of use
the WWVB signal from Ft. Collins, Colorado on 60 KHz to set their time
automatically.

That signal may indeed not be propagating well enough to be of use in Hawaii.

Steve
Holland, MI
Drake R7, R8 and R8B

http://www.iserv.net/~n8kdv/dxpage.htm

4267. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 16:14:17 UTC
From: Joseph Fenn <jfenn@lava.net>
Message-ID: <c39tgpkuq1@xuxa.iecc.com>
Source record: 98237
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

I agree with whoever said WWVH in Hawii is l/c and on same status
as wwv in Colorado, so these "skyscan" clocks should perform as
specified. I found though that my latest one will keep time
right to the second for a period of time, the I have to move it upstairs
where reception is better and leave it there for 24 hours. Once
reset to exact time tick I again put downstairs in the shack and its
good for another momth or so. I fail to see how the clock reader
can discriminate between WWVH (on Kauai) and WWV in Colorado.
Joe (aka kilroy)

****
* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
****

On Tue, 16 Mar 2004, Scott Dorsey wrote:

> tommyknocker <tomynokr@uucp.hell> wrote:
> >Forget about getting an atomic clock to set in Hawaii. The signal is
> >simply too weak. Atomic Time (who I bought my dual time clock from) says
> >that it helps if you point the antenna (apparently they just use ferrite
> >rod antennas-just like in a cheap transistor radio-to recieve) towards
> >Fort Collins, which is due east of my QTH.
>
> Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
> On AM car radios, tape recorders, sometimes even rice cookers.
> --scott
>
> --
> "C'est un Nagra. C'est suisse, et tres, tres precis."
>
>

4268. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 16:14:21 UTC
From: tommyknocker <tomynokr@uucp.hell>
Message-ID: <c39tgt$l1k$1@xuxa.iecc.com>
Source record: 98239
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Scott Dorsey wrote:

> tommyknocker <tomynokr@uucp.hell> wrote:
> >Forget about getting an atomic clock to set in Hawaii. The signal is
> >simply too weak. Atomic Time (who I bought my dual time clock from) says
> >that it helps if you point the antenna (apparently they just use ferrite
> >rod antennas-just like in a cheap transistor radio-to recieve) towards
> >Fort Collins, which is due east of my QTH.
>
> Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
> On AM car radios, tape recorders, sometimes even rice cookers.
> --scott

But most atomic clocks use WWVB on 60 khz out of Fort Collins. WWVH, to my knowledge, only uses HF freqs (5, 10, 15 Mhz). But yeah, I'm sure the rice keeps better time than the people who eat it. :)

4269. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 16:14:24 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <c39th0$l39$1@xuxa.iecc.com>
Source record: 98240
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

"Scott Dorsey" <kludge@panix.com> wrote in message
news:c37iek$g15$1@xuxa.iecc.com...
> tommyknocker <tomynokr@uucp.hell> wrote:
> >Forget about getting an atomic clock to set in Hawaii. The signal is
> >simply too weak. Atomic Time (who I bought my dual time clock from) says
> >that it helps if you point the antenna (apparently they just use ferrite
> >rod antennas-just like in a cheap transistor radio-to recieve) towards
> >Fort Collins, which is due east of my QTH.
>
> Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
> On AM car radios, tape recorders, sometimes even rice cookers.
> --scott

I heard the LuaLuaLei transmitter a lot, but not WWVH, when I lived there.
500kW or 1MW IIRC, somewhere around 24kHz.

4270. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 16:48:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <jaqdnUajYp7XHMXd4p2dnA@comcast.com>
Source record: 98242

"Jack Twilley" <jmt+usenet@twilley.org> wrote in message
news:86hdwo9cyh.fsf@duchess.twilley.org...
>I tuned up on
> the dummy load, then switched over to the real antenna and checked the
> SWR. Here's the results:
>
> Frequency Dummy Antenna
> 3.750 1:1 infinity
> 7.150 1:1 2.5:1
> 14.175 1.05:1 >3:1
> 21.225 1.1:1 3:1
> 28.850 1:1 1.9:1
Jack,
I don'r have any experience with the noise bridge, but based on the SWR readings, I would do the following:

Since you have no 80m radiator, ignore that band for now. Measure the SWR at 7.0 and 7.3+ to determine whether the 40m wire is too long or too short, and trim to size. Repeat at 14.0 and 14.3+, and 28.0 and 28.5(?), assuming you want the most used part of 10m. I guess you are useing the 40m radiator on 15.

Tam/WB2TT

4271. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 16:52:47 UTC
From: Jim Leder <k8cxm@hotmail.com>
Message-ID: <40588259$0$82201$a0465688@nnrp.fuse.net>
Source record: 98243

Yep, had me scratching my head! Great April fools joke! You should have saved it.
I looked at your original on your web page and it would be interesting to try on 30.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:40586361$1_1@corp.newsgroups.com...
> Jim Leder wrote:
> > Cecil, OK, it was a TIC, I know that, but how does it 'fool' EZNEC?
>
> It violates the element spacing rules. Very close spacing is not allowed.
> I forget the details and stumbled upon it by accident. But that antenna
> is really, really a "gain" antenna, radiating a lot more than it's
> feedpoint power. :-) I should have waited until April 1.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4272. N.E.C Grounding Code for Arials

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 17:14:27 UTC
From: Jeffrae <jeffrae@alynk.com>
Message-ID: <c3a1de$n7e$1@newsfeed.norlight.net>
Source record: 98244

No. 10 for Copper..

No. 08 for Aluminum
(Understandable Because of Resistance)

No. 17 for Copper Clad Steel?
Why do they allow such a small conducter?
Is steel able to handle higher voltages like lightening for a longer perioud
of time? (nanoseconds I would think)

Thanks,
Jeff P

4273. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 17:58:23 UTC
From: richardharrison@webtv.net
Message-ID: <28478-405891BF-258@storefull-3254.bay.webtv.net>
Source record: 98246

Toni wrote:
"Then I read about mag-loops having better RX noise immunity than normal antennas because they react to magnetic fields, whilst man-made noise occurs mostly on electric fields."

A small loop requires high capacitance for resonance. Thus it has a narrow-band response and this provides rejection of off-resonance interference in addition to directional rejection of energy which is not in the plane of the loop.

Read about small loop antennas (mag-loops) on page 7-24 of ON4UN`s "Low-Band DXing".

Best regards, Richard Harrison, KB5WZI

4274. Re: 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 18:00:49 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <ln06c.30814$SR1.37217@attbi_s04>
Source record: 98245

Before I finish up with a comparison between a rotating combo dipole and
the weel known beverage antenna for 160M there are a few loose ends to tie
up and ofcourse I will not be describing
the clustered array types.
Moxons book came at the right time for me as I wanted an antenna to reflect
somewhat a transceiver where the antenna design reflected a moveable
bandwidth of a consistant Q and not one where a radio "scans" frequency
response as in a spectrum analyser. The Moxon book gave the answer that I
wanted to read to give me further encouragement, It refered to where ZUKOV
stated that radiation theoretically could emanate from a point and thus one
could read in to that statement that length (wavelength) should not be the
focal point for antenna design after all it would be very difficult to find
anything in a book that focussed around
length. If a point radiation can be realised then length was not a primary
factor instead it was the passive loads that was carried by 'Length". When
Moxon chose the twenty metre length for his
resonator or combo dipole this blurred the impact with respect to what
lengthand constituent passive loads meant,so he chose a random length of
random diameter for his arrangement, after all to factor in the many
resistances involved in radiation without a computor in reverse complex
circuitry aproach would have taken a hundred years. Fortunately he hit on a
suitable size radiator and he was able to procede even tho he made poor
choices later.
The initial arrange ment is shon in his book plus interesting longhand
formula with respect to coupling and corresponding
antenna performance data. Members of the attack group also found an old page
of mine which descibes my interpretations and they also have referred to a
couple of write ups that I did in patent form that clearly shows the
arrangement as did many drawing I made for this newsgroup. Nobody was able
to duplicate Moxons work hich led to the formation of a attack group, I
theorise that the reason that no one could do it was because of a
fascination for the EZNEC program which tho one time a leader in computor
analysis was quickly outpaced by present day modern designs.
The EZNEC program really revolves around providing characteristics around a
previously designed antenna only and not the best arrangement that can be
obtained. For best antenna available one needs the option of assigning
variable values for a design together with large point of moments
assignments so that not only close coupling could be performed with accuracy
but length could be of secondary importance to lumped and distributed
passive components both of which can now be variable. To accomplish what
Moxon did is impossible to duplicate if one ignores distributed loads in a
parallel configuration. Another thing that escaped the naysayers was that
talk of lumped loads in a radiating array placed them in a fixed mind
position where they still hung on to a wavelength design and put these

lumped loads at the feed point to represent an external matching system
which defeats the total intent of a parallel circuit
radiating antenna which provided high Q signal passage which does not
require an external matching system which is known to be lossy for large
size antennas.
The next post will be the last post for the moment because clusterred
antenna design is still ongoing. I have chosen the 160 mtre rotatable dipole
as a base as the initial designs of parallel circuitry revolved around bands
that have now declined. I have chosen to compare it with a simple beverage
antenna even tho this
\beverage is not used as a transmitting antenna but for its listenning
abilities. I might add at this point that when I rotated my
loop/dipole antenna from the horizontal position to the vertical position I
did not get the expected ground noise addition that I expected. This I
attributed to the coupling function of the antenna
which I believe has the ability to remove extranious noise.
Have at it 'experts" you should now be able to portray what Moxon achieved
by the correct use of computorised antenna
programs now knowing the truth of prior efforts that substantiated the
saying of "Garbage in equals garbage out" especially in the attack mode when
one is inclined to listen only to that he wants to hear or substitute for
what he thinks he should have heard.
Art Unwin KB9MZ....XG

4275. Re: N.E.C Grounding Code for Arials

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 18:24:08 UTC
From: richardharrison@webtv.net
Message-ID: <15115-405897C8-850@storefull-3258.bay.webtv.net>
Source record: 98247

Jeffrae wrote:
"No.17 for Copper Clad Steel? Why do they allow such a small conductor?"

Probably the melting point temperature.
Aluminum = 658.5 C.
Copper = 1083 C.
Iron = 1530 C.

Best regards, Richard Harrison, KB5WZI

4276. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 18:50:15 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403171050.12547f7@posting.google.com>
Source record: 98248

Your summary seems reasonable, though I'd add one more thing. I didn't mention the polarization in my first post, to keep things simple. And I didn't mention that you can discriminate also based on direction of propagation. So a highly directional Yagi or parabolic reflector antenna or such can greatly enhance the signal/noise ratio, if the noise is not coming all from the same direction as the signal. And if the noise is coming from only one direction, it's possible to put that direction in the null of a simple antenna with a dipole or a cardiod pattern, such as an electrical dipole or a loop (magnetic dipole).

With regard to 377 ohms, it falls nicely out of the physical constants for freespace and Maxwell's equations. If you were embedded in a large block of polyethylene, however, you would see a different ratio, just as the impedance of a coaxial line changes if you change its dielectric from air to polyethylene.

About polarization: that works well for signals in freespace. But when you are close to a perfectly conducting plane, the electric field is constrained to be perpendicular to the plane at the surface of the plane. Though it's not a perfect conductor, the surface of the earth tends to keep the electric field vertical in the region where we'd generally put our medium-wave and long-wave antennas...that is, within a fraction of a wavelength of the earth. That's why it's important for a loop antenna to have symmetry about a vertical plane: the so-called "shielded loop" should have its gap at the top (or the bottom, but it's usually easier to have it at the top). This is all explained nicely in King, Mimno and Wing, "Transmission Lines, Antennas and Waveguides." The loop antenna explanation in Johnson and Jasik is also quite reasonable. (There's more to be said about EM wave polarization and the earth, and I suppose others will pipe up and say much of it...)

Cheers,
Tom

Toni <post_to_usenet@hotmail.com> wrote in message
news:<hs1g5013iduhvapdp3q8ge2satn81aq8u3@4ax.com>...
> Ok, so trying to summarize your answers, it seems that
>
> - Electric and Magnetic fields, effectively, go together, but
> their ratio may vary, especially at the antenna's near field.
>
> - Cecil Moore says in free space this ratio is the 377 ohms
> characteristic impedance. I don't know how to mathematically

> check this, but seems reasonable to me.
>
> - It is clear that polarization is an important factor in
> rejecting noise. I never doubted that.
>
> So, apparently, it would be clear that
>
> - a reception system capable of discriminating electric/magnetic
> fields should be able to reduce unwanted noise from near sources
>
> and
>
> -adding the capability to discriminate different polarizations
> would also help with noise from both near and far sources.
>
> Correct?
>
> 73,
> EA3FYA - Toni

4277. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 18:59:36 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403171059.4d0c9828@posting.google.com>
Source record: 98249
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

N8KDV <n8kdv@nospam.iserv.net> wrote in message
news:<40579AB8.AE4DCD31@nospam.iserv.net>...
> doc wrote:
>
> > On Wed, 17 Mar 2004 06:17:47 +0800, Dan Jacobson <jidanni@jidanni.org>
> > wrote:
> >
> > >http://www.rfa.org/front/sira/man.html apparently is a brilliant home
> > >brew anti-jamming antenna.
> > >
> > >I asked them to make an English page along with the Chinese page, but
> > >email failed.
> > here it is in english
> > http://www.rfa.org/front/sira/
>
> Would have been nice I suppose if they would have given Villard credit for
> the design.

Here's a site with much better explanations and giving Villard credit
and kudos right up front: http://users.erols.com/k3mt/hla/hla.htm

4278. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 19:26:10 UTC
From: g3pho@nospamblueyonder.co.uk
Message-ID: <40586c06.84946612@news.blueyonder.co.uk>
Source record: 98250

On Tue, 16 Mar 2004 10:01:22 -0600, Bob Miller
<bxmiller@texas.netNOSPAM> wrote:

>GE silicon Kitchen & Bath sealant from the hardware store.

You have to watch some of this stuff as certain brands contain
acetic(?) acid which corrodes copper.

I use a hot glue gun followed by copious layers of self amalgamatind
tape, followed by a couple of layers of standard PVC insulating tape
to prevent UV degradation of the self-amalalg.

Peter, G3PHO

4279. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 19:33:45 UTC
From: kludge@panix.com
Message-ID: <c3a96pbbf1@xuxa.iecc.com>
Source record: 98252
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

In article <c39tgn$kt6$1@xuxa.iecc.com>,
CA was in NJ <cainnj.cjb.net@cainnj.REVERSE_TO_REPLY__SPAMMERS_SHOT_ON_SIGHT> wrote:
>Scott Dorsey wrote:
>
>>Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
>>On AM car radios, tape recorders, sometimes even rice cookers.
>
>The topic is WWVB, the binary signal. WWVH is the voice signal, which an
>autosetting clock will not understand.

I thought WWVH also had BCD data a couple times an hour? Or has that been
stopped along with the Omega navigation beacons?

Is there no VLF facility in Hawaii comparable to WWVB?
--scott
--
"C'est un Nagra. C'est suisse, et tres, tres precis."

4280. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 19:33:47 UTC
From: N8KDV <n8kdv@nospam.iserv.net>
Message-ID: <c3a96r$bc4$1@xuxa.iecc.com>
Source record: 98251
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Joseph Fenn wrote:

> I agree with whoever said WWVH in Hawii is l/c and on same status
> as wwv in Colorado, so these "skyscan" clocks should perform as
> specified. I found though that my latest one will keep time
> right to the second for a period of time, the I have to move it upstairs
> where reception is better and leave it there for 24 hours. Once
> reset to exact time tick I again put downstairs in the shack and its
> good for another momth or so. I fail to see how the clock reader
> can discriminate between WWVH (on Kauai) and WWV in Colorado.
> Joe (aka kilroy)

They don't use WWV or WWVH. They use WWVB 60 kHz out of Fort Collins.

>
>
> **
> * Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
> **
>
> On Tue, 16 Mar 2004, Scott Dorsey wrote:
>
> > tommyknocker <tomynokr@uucp.hell> wrote:
> > >Forget about getting an atomic clock to set in Hawaii. The signal is
> > >simply too weak. Atomic Time (who I bought my dual time clock from) says
> > >that it helps if you point the antenna (apparently they just use ferrite
> > >rod antennas-just like in a cheap transistor radio-to recieve) towards
> > >Fort Collins, which is due east of my QTH.
> >
> > Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
> > On AM car radios, tape recorders, sometimes even rice cookers.
> > --scott
> >
> > --
> > "C'est un Nagra. C'est suisse, et tres, tres precis."
> >
> >

4281. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 19:33:48 UTC
From: exray <dontspamexray@coqui.net>
Message-ID: <c3a96s$bd2$1@xuxa.iecc.com>
Source record: 98254
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Joseph Fenn wrote:
> I agree with whoever said WWVH in Hawii is l/c and on same status
> as wwv in Colorado, so these "skyscan" clocks should perform as
> specified. I found though that my latest one will keep time
> right to the second for a period of time, the I have to move it upstairs
> where reception is better and leave it there for 24 hours. Once
> reset to exact time tick I again put downstairs in the shack and its
> good for another momth or so. I fail to see how the clock reader
> can discriminate between WWVH (on Kauai) and WWV in Colorado.
> Joe (aka kilroy)
>
>
>
> **
> * Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
> **

The data sent on 60 kHz by WWVB isn't transmitted by WWVH. Here's a
chart of the coverage areas of WWVB and it looks like it has a decent
chance of being received in KH6-land at certain hours, like 0800 UTC.
http://www.boulder.nist.gov/timefreq/stations/wwvbcoverage.htm

-ex

4282. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 19:33:50 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <c3a96ubdq1@xuxa.iecc.com>
Source record: 98253
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

"Dave VanHorn" <dvanhorn@cedar.net> wrote in message
news:c39th0$l39$1@xuxa.iecc.com...
>
> "Scott Dorsey" <kludge@panix.com> wrote in message
> news:c37iek$g15$1@xuxa.iecc.com...
> > tommyknocker <tomynokr@uucp.hell> wrote:
> > >Forget about getting an atomic clock to set in Hawaii. The signal is
> > >simply too weak. Atomic Time (who I bought my dual time clock from)
says
> > >that it helps if you point the antenna (apparently they just use
ferrite
> > >rod antennas-just like in a cheap transistor radio-to recieve) towards
> > >Fort Collins, which is due east of my QTH.
> >
> > Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
> > On AM car radios, tape recorders, sometimes even rice cookers.
> > --scott
>
> I heard the LuaLuaLei transmitter a lot, but not WWVH, when I lived there.
> 500kW or 1MW IIRC, somewhere around 24kHz.

WWVH is the 2.5, 5, 10, 15, and 20 MHz voice and data transmitter, it's on
exactly the same freq as WWV in Ft Collins. If you listen, there's a
silence before the guy on WWV speaks, that's for the lady from WWVH to talk
first. (very polite :)

The clocks use WWVB which is a 60 khz signal.
Interference from LuaLuaLei may make that impossible to pick up.
There also used to be a Loran transmitter around 100kHz IIRC, on the north
shore of Oahu, but they may have taken that down now.

4283. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 19:47:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3a9vr$22i$1@sparta.btinternet.com>
Source record: 98255

I'm sorry. I do not understand your question. Perhaps someone else could
have a go.

"Richard Fry" <rfry@adams.net> wrote in message
news:c39o8n$24q2mm$1@ID-175933.news.uni-berlin.de...
> Reg Edwards wrote
> > The shape of the pulse, the width of the pulse, the time interval
> > between pulses, all affect the harmonic frequency spectrum.
> > They act both independently and in conjunction with each other.
> _____________
>
> Please explain the reason why the bandwidth characteristics needed to
> generate a single transition from one DC level to another is different
than
> when repeating that same transition any number of times before or after.
>
> RF
>
>

4284. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 19:59:06 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <ee137ed4.0403171159.4c4002e3@posting.google.com>
Source record: 98256
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

= = = "Eric Oyen - N7ZZT" <n7zzt@127.0.0.1> wrote in message
= = = news:<pan.2004.03.17.11.31.27.421870@127.0.0.1>...
>
> On Wed, 17 Mar 2004 06:17:47 +0800, Dan Jacobson wrote:
>
> > http://www.rfa.org/front/sira/man.html
> > apparently is a brilliant home brew anti-jamming antenna.

URL Extension: 'man.html' = Mandarin (Chinese)

ENGLISH=> http://origin.rfaweb.org/front/sira/

This is the 'original' English Text Page.
.
.
> >
> > I asked them to make an English page along with the Chinese page, but
> > email failed.
> hmmmmmmmm.
> looks like that isn't going to happen anytime soon. they have an English
> page, but its all in BIG-% charset (Chinese).

The 'original' English Text Page is:

ENGLISH=> http://origin.rfaweb.org/front/sira/
.
.
>
> DE N7ZZT
> Phoenix, Arizona

iane ~ RHF

.

4285. CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 20:02:15 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403171202.f93e639@posting.google.com>
Source record: 98257
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Claims that people have started fires by using
their cell phone while refueling a car apparently
are false: See
http://www.snopes.com/autos/hazards/gasvapor.asp
and other sites.

However, the first radios transmitted
sparks, so in principle it should be possible to
transmit near a long wire separated by a small gap from
ground or another wire and get a small spark. So, I
decided to try an experiment.

I don't use a cell phone, so I assumed a CB radio
transceiver would be a reasonable substitute: The
power output of a nominal 5 W CB also is consistent
and nonadaptive, so a possible unknown (actual output
power) is avoided. Cell phones are adaptive and
not very consistent in power output, so power
should be monitored during a cell phone experiment.

5 W is considerably more than the 0.2 to 2 W typically
possible from a cell phone; the power should be the
important factor, although maybe someone should repeat this
experiment with a cell phone, which would operate at
a much higher frequency.

I used a Radio Shack TRC-231 handheld (stock #21-1675)
with xmit power on high and set on Channel 40.
The antenna was the one that came with it (about 25 cm
long). I set the volume to max and the squelch at min
to be able to detect anyone else trying to use the
channel; this was just to be sure that my brief, silent
transmissions would not interfere with anyone.

I used the CB indoors, in a mostly metal-shielded
room. Because CB wavelength is around 10 m, everything I
did was in the near field; however, the inverse square law
for power still holds, allowing that the CB antenna is more
of a line than a point source under my conditions below.

The first thing I noticed was that every time I keyed the
transmit button, the CB would switch the
light level of a nearby touch-dimmed lamp, and it
made a Microalert microwave detector scream. I unplugged
the lamp and turned off the Microalert.

Then, I tried to light a 120VAC indicator neon lamp attached to two solid copper switchback wires totalling about 1 m long, so the lamp was in the middle effectively of a dipole antenna. I tested the lamp and found it would light with 10 microamps current. The CB had no effect, even if held parallel to, and almost touching, the wires. Thus, the near field of a 5 W CB radio can not supply about 90 V at even 10 uA, under these conditions.

I then attached a 1.2 m monopole antenna to an oscilloscope. This antenna has a Schottky hot carrier diode and impedance matching resistors builtin. It's home made, but it's probably as good as any other wire about that long. I hooked the antenna coax to an oscilloscope: With the CB transmitting, and its antenna parallel and 1 m away from the monopole, the amplitude was about 100 mV p-p, at 27 MHz or so. I could not get more amplitude no matter how close I held the CB, or at what angle. Touching the bare monopole wire increased the amplitude by no more than 10%.

So, first conclusion: To get even a 1 V spark would take a wire at least 9 m long, all somehow kept within 1 m of the transmitter. Thus, it appears it is not feasible to create a hazardous spark with a CB at a gas station.

Just to be sure, I taped a 1 m wire to a table top in the dark and slowly brought it closer and closer to another wire plugged into a wall socket 3rd wire ground (yes, I verified that the socket was wired to ground first!). At each distance, I briefly keyed the CB. I could not see any spark, even after dark-adapting my eyes for 10 min and letting the wires touch. I might have dark-adapted longer, but I don't know whether I should have been able to see a 50 mV spark or not.

So, I think sliding over on a car seat, and thus generating a possible static charge, would be more likely to ignite gasoline vapor than talking on a cell phone while refueling. However, it would be useful for someone to repeat this kind of test with an actual cell phone, as opposed to a CB radio. The wires should be shorter, for one thing . . ..

I'm cross posting to an antenna group, looking for criticism.

John
jwill@AstraGate.net
John Michael Williams

4286. Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 20:08:33 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <fsbh50pfu8h4erj8oag2u83omjsjs6k7kp@4ax.com>
Source record: 98258
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I was struck by a thought when I heard the latest Palestinian
terrorist trick is to send a kid through the border with a back-pack
bomb triggered by a cell phone....

The Israelis should get a telemarketer's speed dialer and constantly
dial away... boom... boom... boom...

ROTFLMAO!

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

John "Peace for our Time" Kerry, Neville Chamberlain of this Century

4287. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 20:29:24 UTC
From: Harris <aharris@bookworm.suffolk.lib.ny.us>
Message-ID: <Ey26c.7962$5M.268762@dfw-read.news.verio.net>
Source record: 98259

R. Scott <washingtonhamTHREAD@yahoo.com> wrote:

> So how do you guys seal your outside coax ?

Duct Seal from the Electrical Dept at Home Depot.

Art N2AH

4288. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 20:56:47 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403171256.38e90d78@posting.google.com>
Source record: 98260

Please consider this:

A step at t=0 results in some spectrum. If you have an identical step which occurs at some other time, the amplitude of the spectrum is the same, but the phases are different, and the difference depends on the time difference. In fact, a negative step will have the same spectral amplitude as a positive step, but inverted phases when comparing two steps at the same time. (Note this gives the right result when you add a positive and negative step coincident in time.) When you add the two steps (perhaps one positive at t=0 and one negative at t=tau, producing a pulse of width tau, for example), you will get cancellation at some frequencies and reinforcement at others. The resulting spectrum, then, depends on the time difference between the edges, because the relative phases depend on the time difference. Having a repetitive waveform (that has always existed and always will) results in full cancellation of all spectral components except at DC and 1/repetition rate and all harmonics of 1/repetition rate. But the amplitudes (and phases) of the harmonics still depend on the timings.

Another (equivalent) way to look at it is that an impulse has a flat spectrum, independent of the position of the impulse, but the phase of the spectral components depends on the position (time) of the impulse. Any waveform may be decomposed into an infinite series of impulses. Consideration of the phases will lead you to the same conclusion as the comments in the paragraph above.

You can use the basic properties of the Fourier transform to demonstrate all this numerically or analytically if you wish.

Cheers,
Tom

"Richard Fry" <rfry@adams.net> wrote in message
news:<c39hdt$25h36q$1@ID-175933.news.uni-berlin.de>...
> Why would varying the pulse width without changing the characteristics of
> the pulse transitions (rise/fall) affect the harmonic content of the pulse?
> No bandwidth and no harmonics at all are produced by the constant DC level
> of the pulse before and after each transition.
>
> Wouldn't the harmonic structure and bandwidth needed to produce/reproduce a
> pulse be related only to the rise and fall times of that pulse, and the
> transition shapes (sin^2, etc), and be independent of the width (time)
> between the transitions?
>
> RF
>

> Visit http://rfry.org for FM broadcast RF system papers.

4289. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 20:59:56 UTC
From: N8KDV <n8kdv@nospam.iserv.net>
Message-ID: <c3ae8c$9ne$1@xuxa.iecc.com>
Source record: 98263
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Scott Dorsey wrote:

> In article <c39tgn$kt6$1@xuxa.iecc.com>,
> CA was in NJ <cainnj.cjb.net@cainnj.REVERSE_TO_REPLY__SPAMMERS_SHOT_ON_SIGHT> wrote:
> >Scott Dorsey wrote:
> >
> >>Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
> >>On AM car radios, tape recorders, sometimes even rice cookers.
> >
> >The topic is WWVB, the binary signal. WWVH is the voice signal, which an
> >autosetting clock will not understand.
>
> I thought WWVH also had BCD data a couple times an hour?

They do.

> Is there no VLF facility in Hawaii comparable to WWVB?

No.

4290. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 21:01:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tveh509tg3mju5vijahvasgdh1rqsn6it1@4ax.com>
Source record: 98261

On Tue, 16 Mar 2004 22:58:46 -0800, Jack Twilley
<jmt+usenet@twilley.org> wrote:

>I just completed another test of my antenna. I set the antenna tuner
>to "bypass" so I could use its SWR meter without affecting the
>tuning. Then, for each of the five bands I want to use, I tuned up on
>the dummy load, then switched over to the real antenna and checked the
>SWR. Here's the results:
>
>Frequency Dummy Antenna
>3.750 1:1 infinity
>7.150 1:1 2.5:1
>14.175 1.05:1 >3:1
>21.225 1.1:1 3:1
>28.850 1:1 1.9:1
>

Hi Jack,

If you can, move the Dummy Load to the end of the transmission line
and repeat the measurements.

73's
Richard Clark, KB7QHC

4291. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 21:02:37 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <c3aedf$24hc5e$1@ID-76636.news.uni-berlin.de>
Source record: 98262
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"John Michael Williams" <jwill@AstraGate.net> wrote in message
news:4032bf27.0403171202.f93e639@posting.google.com...
> Claims that people have started fires by using
> their cell phone while refueling a car apparently
> are false: See
> http://www.snopes.com/autos/hazards/gasvapor.asp
> and other sites.
>
> However, the first radios transmitted
> sparks, so in principle it should be possible to
> transmit near a long wire separated by a small gap from
> ground or another wire and get a small spark. So, I
> decided to try an experiment.
>
> I don't use a cell phone, so I assumed a CB radio
> transceiver would be a reasonable substitute: The
> power output of a nominal 5 W CB also is consistent
> and nonadaptive, so a possible unknown (actual output
> power) is avoided. Cell phones are adaptive and
> not very consistent in power output, so power
> should be monitored during a cell phone experiment.
>
> 5 W is considerably more than the 0.2 to 2 W typically
> possible from a cell phone; the power should be the
> important factor, although maybe someone should repeat this
> experiment with a cell phone, which would operate at
> a much higher frequency.
>
> I used a Radio Shack TRC-231 handheld (stock #21-1675)
> with xmit power on high and set on Channel 40.
> The antenna was the one that came with it (about 25 cm
> long). I set the volume to max and the squelch at min
> to be able to detect anyone else trying to use the
> channel; this was just to be sure that my brief, silent
> transmissions would not interfere with anyone.
>
> I used the CB indoors, in a mostly metal-shielded
> room. Because CB wavelength is around 10 m, everything I
> did was in the near field; however, the inverse square law
> for power still holds, allowing that the CB antenna is more
> of a line than a point source under my conditions below.
>
>

> The first thing I noticed was that every time I keyed the
> transmit button, the CB would switch the
> light level of a nearby touch-dimmed lamp, and it
> made a Microalert microwave detector scream. I unplugged
> the lamp and turned off the Microalert.
>
> Then, I tried to light a 120VAC indicator neon lamp attached
> to two solid copper switchback wires totalling about 1 m
> long, so the lamp was in the middle effectively of a dipole
> antenna. I tested the lamp and found it would light with
> 10 microamps current. The CB had no effect, even if held
> parallel to, and almost touching, the wires. Thus, the near
> field of a 5 W CB radio can not supply about 90 V at even
> 10 uA, under these conditions.
>
> I then attached a 1.2 m monopole antenna to an oscilloscope.
> This antenna has a Schottky hot carrier diode and impedance
> matching resistors builtin. It's home made, but it's probably
> as good as any other wire about that long. I hooked
> the antenna coax to an oscilloscope: With the CB transmitting,
> and its antenna parallel and 1 m away from the monopole,
> the amplitude was about 100 mV p-p, at 27 MHz or so. I could
> not get more amplitude no matter how close I held the CB,
> or at what angle. Touching the bare monopole wire increased
> the amplitude by no more than 10%.
>
> So, first conclusion: To get even a 1 V spark would take a
> wire at least 9 m long, all somehow kept within 1 m of the
> transmitter. Thus, it appears it is not feasible to create a
> hazardous spark with a CB at a gas station.
>
> Just to be sure, I taped a 1 m wire to a table top in the dark
> and slowly brought it closer and closer to another wire
> plugged into a wall socket 3rd wire ground (yes, I verified
> that the socket was wired to ground first!). At each distance, I
> briefly keyed the CB. I could not see any spark, even after
> dark-adapting my eyes for 10 min and letting the wires touch.
> I might have dark-adapted longer, but I don't know whether
> I should have been able to see a 50 mV spark or not.
>
> So, I think sliding over on a car seat, and thus generating a
> possible static charge, would be more likely to ignite gasoline
> vapor than talking on a cell phone while refueling. However, it
> would be useful for someone to repeat this kind of test with an
> actual cell phone, as opposed to a CB radio. The wires should
> be shorter, for one thing . . ..
>
> I'm cross posting to an antenna group, looking for criticism.
>
> John

> jwill@AstraGate.net
> John Michael Williams

It's a bit of a stretch to think that cell-phones are a problem, whereas the car driving off next to you, with a set of spark plugs going for their lives, is not. Hmmmm.

Ken

4292. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 21:06:20 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4058BDCC.340A95BF@cwis.net>
Source record: 98264
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

John,
It's also possible to start a fire rubbing two sticks
together, but it isn't as likely to be an accidental thing.
I would tend to doubt any claims about cell phones starting
accidental fires unless there has been some modification
to the phone, or other unusual circumstance. Turning off
cell phones and radios seems like a reasonable precaution
while fueling, I don't have a problem with that. I also
don't understand why anyone else would either. Do I turn off
my two way radio when fueling? Yes, but mainly because of
how it's connected (ignition switch).
If fuel vapor liable to ignite because of RF? Not unless
the RF field is very strong, or the antenna arcs for some
reason. Very likely? Not really. Possible? Sure. So using
a little common sense... what's the problem?
'Doc

PS - Cross posting is a sure way of causing misunderstandings.

4293. Re: 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 21:10:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n8fh509hmjtaomcv6o1cp5lo87uv4uqrhs@4ax.com>
Source record: 98265

On Wed, 17 Mar 2004 18:00:49 GMT, "aunwin" <aunwin@insightbb.com>
wrote:

> "Garbage in equals garbage out"

Hi Art,

As has been consistent throughout, you have yet to reveal ANY design specification and you have entirely refused to offer ANY results from this "superior" software you promise proves all these claims you've pulled out of a hat. You have never demonstrated proficiency with any software package, so your biased claims are suspect and the quoted statement above is especially meaningful. Mark had to work long and hard to get a faint model of your statements, which you now disavow. As Jaro pointed out, you can achieve any results through carefully omitting important details, or guessing at others.

73's
Richard Clark, KB7QHC

4294. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 21:26:54 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <NvSdnfw8BJEJX8XdRVn-jg@comcast.com>
Source record: 98266
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I noticed that the appearance of the no cell phone signs came around the same time that gas stations started running audio commercials through speakers at the pump.

4295. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 21:33:43 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <Xu36c.33004$po.292953@attbi_s52>
Source record: 98267
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

John Michael Williams wrote:

SNIP
>
> However, the first radios transmitted
> sparks, so in principle it should be possible to
> transmit near a long wire separated by a small gap from
> ground or another wire and get a small spark. So, I
> decided to try an experiment.
>
SNIP

There is one other potential source for a spark that you did not investigate.

A make/break contact in a switch causes sparks when opened. The US Military specifies special shielded switches for their explosive, gas vapor, etc., environments.

So, it is possible that pressing the PTT or the ON/OFF switch causes the necessary spark. Remember the Apollo ground fire. A switch/spark caused an oxygen explosion.

4296. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 22:03:25 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <tgih50pj2q0giqdgov26hjjpg31pnhscff@4ax.com>
Source record: 98268

Thanks to all who sent great Ideas in the end I went with an old
stand by which seems to be working well..
it's an Off Center Fed Dipole 1 Wave Long and fed 1/4 wave from one
end. it's up as a sloper 50 feet on one end , 25 ft on the other..

Worke Iraq and Antartica on it the other night on 30m not bad..
Also have a 160m (520') Horizontal loop and the OFCD Or (minimal
Long wire) seems to be better by about 1 to 2S units on most station
except the Carabine which always seems better on the Loop. Also
Florida is better on the loop.

Have heard any Pacific openings since I put the ant up so will have to
reserve my opinon until that opens up.
73 to all hope to cu on 30 M
Dave kc1di

4297. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 22:05:59 UTC
From: Richard Henry <rphenry@home.com>
Message-ID: <fZ36c.13575$uh.10833@fed1read02>
Source record: 98169
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:Xu36c.33004$po.292953@attbi_s52...
> John Michael Williams wrote:
>
> SNIP
> >
> > However, the first radios transmitted
> > sparks, so in principle it should be possible to
> > transmit near a long wire separated by a small gap from
> > ground or another wire and get a small spark. So, I
> > decided to try an experiment.
> >
> SNIP
>
> There is one other potential source for a spark that you did not
> investigate.
>
> A make/break contact in a switch causes sparks when opened. The US
> Military specifies special shielded switches for their explosive, gas
> vapor, etc., environments.
>
> So, it is possible that pressing the PTT or the ON/OFF switch causes the
> necessary spark. Remember the Apollo ground fire. A switch/spark caused
> an oxygen explosion.

I wouldn't call it an "oxygen explosion" but a small fire that grew rapidly
due to the pure-oxygen atmosphere.

4298. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 22:31:12 UTC
From: Allen Windhorn <Allen.Windhorn@LSUSA.com>
Message-ID: <ubrmv2jmn.fsf@LSUSA.com>
Source record: 98170

"Richard Fry" <rfry@adams.net> writes:

> Reg Edwards wrote
> > The shape of the pulse, the width of the pulse, the time interval
> > between pulses, all affect the harmonic frequency spectrum.
> > They act both independently and in conjunction with each other.
> _____________
>
> Please explain the reason why the bandwidth characteristics needed to
> generate a single transition from one DC level to another is different than
> when repeating that same transition any number of times before or after.

One way to look at it is to consider the harmonics produced by all the
rising edges, and spearately consider the harmonics produced by the
falling edges. Both contain all of the harmonics, but since they are
displaced in phase, some of them get cancelled.

Obvious example: a square wave contains only odd harmonics.

Regards,
Allen WA0OHE
--
Allen Windhorn (507) 345-2782 FAX (507) 345-2805
Kato Engineering (Though I do not speak for Kato)
P.O. Box 8447, N. Mankato, MN 56002
Allen.Windhorn@LSUSA.com

4299. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 22:44:02 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <c3akb3$257jn2$1@ID-175933.news.uni-berlin.de>
Source record: 98171

"Allen Windhorn" wrote:

> One way to look at it is to consider the harmonics produced by all the
> rising edges, and spearately consider the harmonics produced by the
> falling edges. Both contain all of the harmonics, but since they are
> displaced in phase, some of them get cancelled.
>
> Obvious example: a square wave contains only odd harmonics.

Would that not require the components of rising edges to be time-coincident
with a trailing edges? How could that occur when the these transitions
occur at different times?

RF

Visit http://rfry.org for FM broadcast RF system papers.

4300. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 22:50:10 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c3akn4$22uuq7$1@ID-225834.news.uni-berlin.de>
Source record: 98172

Butch wrote:

> You need a Predator. Do a search for "predator antenna" Made for RVs
> and SUVs!
>
> Butch KF5DE
>
> Jeremy Salch wrote:
>> Anyone ever setup a screwdriver on a RV and have it work very well ?
>>
>> I have one installed but it preforms very poorly compared to
>> how well it worked on my car.
>>
>> I think it is not working very well because the entire antenna is next to
>> the side of the motorhome.. and on my car.. only maybe the bottom 2 feet
>> of it were beside another surface.
>>
>> I guess another question would be.. does anyone know if it would
possibly
>> work better if it could be mounted at an angle instead of directly
>> vertical?
>>
>>
i'll check it out

--
Registered Linux User #346565

4301. Re: anti-jamming antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 23:01:20 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <4N46c.31942$_w.532820@attbi_s53>
Source record: 98173
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Try this link!

http://www.rfa.org/front/sira/

"Dan Jacobson" <jidanni@jidanni.org> wrote in message
news:874qsol9mc.fsf@jidanni.org...
> http://www.rfa.org/front/sira/man.html apparently is a brilliant home
> brew anti-jamming antenna.
>
> I asked them to make an English page along with the Chinese page, but
> email failed.

4302. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 23:35:02 UTC
From: Mark Fergerson <nunya@biz.ness>
Message-ID: <Pg56c.19375$Nj.135@fed1read01>
Source record: 98174
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jim Thompson wrote:

> I was struck by a thought when I heard the latest Palestinian
> terrorist trick is to send a kid through the border with a back-pack
> bomb triggered by a cell phone....
>
> The Israelis should get a telemarketer's speed dialer and constantly
> dial away... boom... boom... boom...

If they could figure out from whom they're buying all
them pre-paid cellphones (in order to generate the number
lists), it could work. Just keep it running 24/7 with a
"Sorry, wrong number" message in case an innocent (or
unfinished bomb) answers.

I figure eventually they'll run out of suicide-bomb
volunteers. Might as well help if it can be done without
blowing anyone else up.

Mark L. Fergerson

4303. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 23:44:04 UTC
From: Paul Burridge <pb@osiris1.notthisbit.co.uk>
Message-ID: <28oh501m95e8chf6vplbpkmpvsfp2uv5cd@4ax.com>
Source record: 98175
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Wed, 17 Mar 2004 13:08:33 -0700, Jim Thompson
<thegreatone@example.com> wrote:

>I was struck by a thought when I heard the latest Palestinian
>terrorist trick is to send a kid through the border with a back-pack
>bomb triggered by a cell phone....
>
>The Israelis should get a telemarketer's speed dialer and constantly
>dial away... boom... boom... boom...
>
>ROTFLMAO!

Yes, I'm rolling on the floor laughing at all these deaths, too, as
I'm sure we all are.
--

The BBC: Licensed at public expense to spread lies.

4304. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 23:47:44 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <861xnravdr.fsf@duchess.twilley.org>
Source record: 98176

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Richard, moving the dummy load to the end of the transmission line is
an excellent idea, and I really wish I could do it easily, but the
paint can I used doesn't have a handle. I'll try to work something
like that out this weekend.

Jack.
(looks like I'll have *lots* of data)
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAWOOlGPFSfAB/ezgRArbSAJ46aSXQgtZOkjb2zU6Vs3wnEx8GhgCgsmzC
v1WA2pHea6ULhVUlFDd715o=
=2ocQ
-----END PGP SIGNATURE-----
```

4305. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-17 23:52:34 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <6x56c.45468$aT1.41950@newsread1.news.pas.earthlink.net>
Source record: 98177

Hi Cecil, and thanks yet again! Comments below...

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4057ca38$1_5@corp.newsgroups.com...
> Old Ed wrote:
> > 1. At what elevation angle X does the monopole show the highest gain,
> > and what is that gain?
>
> Already answered. If I remember right, it was 0 dBi at 26 degrees.

You quoted the 0 dBi at 26 degrees in an earlier post; but
you did not identify the 26 degrees as the highest-gain angle.

>
> > 2. What is the "average" gain of the dipole, at elevation angle X,
> > taken over the full 360 degrees of azimuth, at one-degree
> > increments?
>
> Please define "average" gain. The reason for using a higher gain antenna
> is to increase the gain above an "average" monopole. How about if I just
> post the radiation pattern on my web page?
>
I did provide my definition of average (azimuthal) gain with the question;
but you snipped it out. 8-(Not to worry, I can snip it right back in
again...

"2. What is the "average" gain of the dipole, at elevation angle X, taken
over the full 360 degrees of azimuth, at one-degree increments?
(Note: Gain data points expressed in dB should be converted to
linear powers, the linear powers averaged, and then the average
linear power converted back to dB, of course. To do otherwise
would improperly penalize a lobed pattern (the dipole) that might
have one or two minus infinity dB gain values.)"

> I know where I want to QSO to so I turn my 130' dipole broadside to AZ.
>
> > 3. If you're still on board with all this, it would also be interesting
> > to know what happens to the elevation angle and gain of the
> > monopole if the number of radials is kicked up to a large number,
> > like 64.
>
> It no doubt, goes up. 8 is all I ever installed. Seems to me a waste of
> effort to use 32 times the copper that it takes for a dipole and still
> not have the gain of a dipole. Incidentally, my 20m-10m dipole is
> rotatable.

Well, I wasn't suggesting that you put more real copper in the ground;
I was just hoping you might put some more virtual copper in the model,
to see what happens.

As to quantity of copper (real or virtual), some folks find that wire is
cheaper than tall support masts. Other folks, perhaps with tall trees,
would see different trade-offs.

It's good your 20m-10m dipole is rotatable. Mine isn't. 8-(
But we were discussing the 130 footer, used on 30m.
If you can rotate that one, I'm impressed.

73, Ed

> --
> 73, Cecil http://www.qsl.net/w5dxp
>

4306. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 00:09:30 UTC
From: Roger Gt <not@here.net>
Message-ID: <_M56c.39789$TI3.2164@newssvr25.news.prodigy.com>
Source record: 98178
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Paul Burridge" wrote
: Jim Thompson wrote:
:
: >I was struck by a thought when I heard the latest Palestinian
: >terrorist trick is to send a kid through the border with a
back-pack
: >bomb triggered by a cell phone....
: >
: >The Israelis should get a telemarketer's speed dialer and
constantly
: >dial away... boom... boom... boom...
: >
: >ROTFLMAO!
:
: Yes, I'm rolling on the floor laughing at all these deaths, too,
as
: I'm sure we all are.

Huh?
He seemed to be laughing at the lame Idea! I also thought it
funny that anyone would try something which would almost totally
wipe out the cellular phone service for the entire country... All
to provide a SMALL measure of confidence that no one had a bomb
attached to a phone. Like it would even work!
WTH are you referring to? GAL!

4307. Re: Antenna analysis

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 00:17:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8aqh505i8vtu9m8mbq3s1jb6t940gvavrr@4ax.com>
Source record: 98179

On Wed, 17 Mar 2004 15:47:44 -0800, Jack Twilley
<jmt+usenet@twilley.org> wrote:

>Richard, moving the dummy load to the end of the transmission line is
>an excellent idea, and I really wish I could do it easily, but the
>paint can I used doesn't have a handle. I'll try to work something
>like that out this weekend.
>
>Jack.

Hi Jack,

This is where you could as easily use a 50 Ohm resistor and your noise generator. There would be less interfering signals to confuse the data.

You could also throw a deliberate mismatch onto the end like a 200 Ohm resistor. What value is that? If you measured 1:1, it would indicate you have an extremely lossy line (which tends to smooth out mismatches and gives some antenna inventors that warm snuggly feeling that they have licked the experts).

73's
Richard Clark, KB7QHC

4308. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 01:09:05 UTC
From: aunwin <aunwin@insightbb.com>
Message-ID: <RE66c.33727$po.297044@attbi_s52>
Source record: 98180

Mark you should have no room for complaints. I offered you unhindered access to my work including the computor programing system which I would purchase at my own expense together with the programing I used to substantiated my findings. You refused that offer prefering to stay with the pack and ridicule all. You have had access to the patent write ups many times as they have been brought forward many times by members to serve at a ridicule point and all you had to do was to click on what was supplied. They also found a very old page that I had describing the loop/dipole antenna together with the drawings and you are still complaining. I have personally informed you that EZNEC was not a suitable vehicle for this work but you proceded on the point that you were proficient in any sort of computor programing, and you are still complaining ,and now you bring up a drawing that you say you put before me even tho you had the option of looking at the many drawings available. I just looked at the drawing that you proffer and I defy anybody to look at that and know what it represents. Time and time again I tried to make peace with you but you chose to tag along with those who have attacked many contributors in the past since they have a long winning record in ousting many others. You decided on your nest a long time ago so you really have no reason to complain as you still have your cohorts around you that tend to belittle all. Your crying now falls on deaf ears.
Nuff said
'Good day' I think he said
Art

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0403161800.59366996@posting.google.com...
> jaroslavlipka@msn.com (jaroslav lipka) wrote in message
> > g'day Keith
> >
> > When it comes to modeling what you leave out is just as
> > important as what you put in, some times more so.
> > My money is still on Art.
> > Jaro.
>
> To do what?
> As far as modeling, I modeled exactly what he told me to. He ok'ed the
> diagram of the antenna. As a matter of fact I still have it on my
> server.
> http://web.wt.net/~nm5k/loopole.jpg
> MK

4309. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 01:13:11 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <85th50ll7n01eeaid7i8isokog4pnv3ofk@4ax.com>
Source record: 98182

On Wed, 17 Mar 2004 02:07:14 -0800, Bill Turner <noway@nohow.com>
wrote:

>On Tue, 16 Mar 2004 20:44:47 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>and as others have probably pointed out stay away from the silicone rubber
>>caulks and glass sealants, those usually give off an acid while curing (the
>>vinegar smell) that can etch the connector, and they just don't stay very
>>well sealed when coated on a connector.

They really aren't a problem when used out in the open and they stay
very well sealed on connectors "if the connector was clean" when the
Silastic RTV (TM) was applied.

Now: OTOH *most* of the RTV family, regardless of who made it, depend
on moisture to cure. They are water proof, not moisture proof.

However the noncorrosive stuff has Alcohol in it. It doesn't smell
like Alcohol. It just stinks. There is never any doubt as to which
you have in hand.

>
>_____
>
>If you want to use the silicone seal type stuff, get some at a pet shop
>that is rated for aquariums. The look and feel is identical to the

I built two rather large aquariums...many years back and used plain
old fashioned bath tub calk. Smells like vinegar, and is corrosive
when used in confined spaces.

Built the aquariums, let cure for two days, poured in water on the
third, looked for leaks, changed water and put in fish on the 4 th
day. Fish survived.

>vinegar-smelling stuff, but non corrosive. If it's safe for fish, it's
>safe, period.

It's mostly all safe when not used in confined spaces.
At work we used the stuff for years, but then we picked up some
circuits that were to be used in a rather hostile environment. They
came potted with a RTV silicone. In about 6 weeks the first failed.
With only two exceptions they all failed within the next two weeks.

When I took the first one apart I suggested we might want to get some
replacements on order and to hurry! It had eaten the foil right off
the PC board.

When it comes to weather proofing I'll stick with "Liquid Electrical Tape" as my first choice, flooded heat shrink as a second (First for splices) and "Coax Seal" (TM) as a third. I also have a habit of coating all connections on antennas with about 5 coats of clear Krylon (TM) with enough time between coats for the stuff to dry. Then it gets a coat or two, or three of Liquid electrical tape. Usually I use the bright red on antenna connectors.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

4310. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 01:16:40 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <C4KdnWcAhoqEZcXdRVn-vw@comcast.com>
Source record: 98181
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Better not open your door or have someone else open theirs next to yu then.
That dome light switch might get you.
"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:Xu36c.33004$po.292953@attbi_s52...
> So, it is possible that pressing the PTT or the ON/OFF switch causes the
> necessary spark. Remember the Apollo ground fire. A switch/spark caused
> an oxygen explosion.
>

4311. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 01:17:28 UTC
From: stylzmovements2000@yahoo.com
Message-ID: <51eca3ef.0403171717.1031f940@posting.google.com>
Source record: 98183
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

i found this antenna page ,
can i use a coil for the use od decoupling the signal?

http://www.packetradio.com/images/6mdipole.gif

4312. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 01:18:06 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4058f910_1@corp.newsgroups.com>
Source record: 98184

Old Ed wrote:
> But we were discussing the 130 footer, used on 30m.
> If you can rotate that one, I'm impressed.

Actually, I can rotate that 130 ft dipole. I live on a
triangular shaped lot so I can rotate it about 60 degrees
from either end. Presently, I have it oriented so the cloverleaf
lobes point toward the world's land masses on the higher bands.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4313. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 01:48:56 UTC
From: "Tim Auton"
Message-ID: <gqvh50hc50ujs9otkkk35o1u47g6uj415j@4ax.com>
Source record: 98185
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Ken Taylor" <ken123@xtra.co.nz> wrote:
[snip]
>It's a bit of a stretch to think that cell-phones are a problem, whereas the
>car driving off next to you, with a set of spark plugs going for their
>lives, is not. Hmmmm.

Quite. Not only that, but a petrol station I used to live near had an
in-store bakery.

Tim
--
Love is a travelator.

4314. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 02:38:29 UTC
From: Ben Bradley <ben_nospam_bradley@mindspring.example.com>
Message-ID: <572i50l3vv3l6t933e5u4bjq7k2rq3hq7r@4ax.com>
Source record: 98186
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In rec.radio.amateur.antenna,

(I suppose this is on RRAA because cell phones have antennas)

sci.electronics.design,sci.electronics.basics, Jim Thompson
<thegreatone@example.com> wrote:

>I was struck by a thought when I heard the latest Palestinian
>terrorist trick is to send a kid through the border with a back-pack
>bomb triggered by a cell phone....

Call phones have become the trigger of choice for terrorist bombs.

>The Israelis should get a telemarketer's speed dialer and constantly
>dial away... boom... boom... boom...

This might already be illegal there (not that that would stop a
government). I've heard that various parts of Europe have much
stronger privacy laws than the US, so there's little or no
telemarketing.

>ROTFLMAO!

Of course, in the USA, one could put the cell number on the
national DO-NOT-CALL list, then only an "illegal" telemarketer would
trigger the bomb.

Bombers might figure ways around this (especially if they search
Usenet), such as a cellphone answering circuit and a "dee tee em eff"
decoding circuit. I wouldn't want to spell it out for them...

> ...Jim Thompson

-----
http://mindspring.com/~benbradley

4315. Mike Villard's "Noise Rejecting" Horizontal Loop Antenna (HLA) [Was: Anti-Jamming Antenna on Radio Free Asia website

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 02:39:45 UTC
From: rhf-say-bye-bye@pacbell.net
Message-ID: <ee137ed4.0403171839.7ec313dc@posting.google.com>
Source record: 98187
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

FO&A,

Mike Villard's "Noise Rejecting" Horizontal Loop Antenna (HLA)
- WebPage presented by Michael Toia [K3MT]
HLA=> http://users.erols.com/k3mt/hla/hla.htm
[aka: Anti-Jamming Antenna]

K3MT's STORY - Behind this WebPage about the "Noise Rejecting"
Horizontal Loop Antenna (HLA) [aka: Anti-Jamming Antenna] :

"Here's a neat little antenna for receiving on shortwave - that
is, HF - frequencies. It's the brainchild of Mike (aka Dr. O. G.)
Villard, Professor Emeritus of Stanford, founding father of
Stanford Research Instatute (SRI) Inc, and one of the most
wonderful colleagues with which it has been my sheer pleasure
to be associated. Mike had been asked by the Chief of U.S.
Information Agency, the parent of Voice of America, if there
might be some way to counter Soviet jamming of VOA broadcasts.
His mind set to work: he made a pile of different antennas that
seemed to show some promise, and presented a proposal to USIA to
produce two different anti-jam antennas that would be effective.
I was at VOA engineering. His proposal became a contract: by the
best of luck, engineering thrust me into the role of "ARCO" -
authorized rep of the contracting officer (all other government
agencies call this "COTR," but USIA is, well, different!)

Mike showed me myriad designs that filled his pool house to
the max! W selected two promising ones, and spent the rest of
the year studying them, improving them, and producing a really
neat end product. One counters jamming via sky wave, where the
jammer propagates by ordinary HF propagation. The other counters
ground wave jammers - noise transmitters located near the receiver,
usually on the outskirts of the city being jammed.

Ground wave jamming is exactly similar to arcing power lines or
other locally produced noise from appliances and the like -
even from lightning.

So, without further delay, I present, in picture form, . . . "

Mike Villard's "Noise Rejecting" Horizontal Loop Antenna (HLA)
HLA=> http://users.erols.com/k3mt/hla/hla.htm
[aka: Anti-Jamming Antenna]

iane ~ RHF
.
.
= = = rhf-say-bye-bye@pacbell.net (RHF) wrote in message
= = = news:<ee137ed4.0403170018.7906b375@posting.google.com>...
>
> DJ,
> .
> First - You could have did a Search the Rec.Radio.Shortwave
> NewsGroup Message History/Archive ?
> .
> Search: 'anti' 'jamming' 'antenna'
> RESULTS=> http://tinyurl.com/243mr
> RFA-English <http://origin.rfaweb.org/front/sira/>
> VOA-IBB <http://www.ibb.gov/engineering/antenna1.html>
> Mike Villard [K3MT] <http://users.erols.com/k3mt/hla/hla.htm>
> .
> TOP Seach Listing "Sorted by Relevance"
> .
> Re: Anti-Jamming Shortwave Antenna System?
> ... Home Brew" Noise Canceling (Anti-Jamming) Antenna
> This Antenna was Originally Designed as a simple and easy
> to build Anti-Jamming Antenna for Radio Free ...
> rec.radio.shortwave - Oct 26, 2002 by RHF - View Thread (8 articles)
> .
> -
> .
> From: RHF (rhf-mail@usa.com)
> Subject: Re: Anti-Jamming Shortwave Antenna System?
> Newsgroups: rec.radio.shortwave
> Date: 2002-10-26 11:22:18 PST
> .
> Take a Look at this Hard-Core DX webpage.
> "Antenna for Reducing SkyWave Interference"
> Written by Dr. O. G. Villard, Jr.
> http://www.hard-core-dx.com/nordicdx/antenna/special/reducin1.html
> NOTE: This design is for ShortWave "SkyWave" Signal Reception.
> .
> This is from a prior posting to this NewsGroup.
> "Home Brew Noise Canceling (Anti-Jamming) Antenna"
> .
> ~ RHF
> =QUOTE=
> .
> Howdy RHF:
> .
> Thanks for the link. The featured CTL (Coplanar-Twin-Loop) may be
> one I haven't seen as of yet. However, there was one described on
> the VOA/IBB website I looked at a couple of years ago.
> .
> This special and unusual antenna was designed by a heavy duty

> research scientist at Stanford Research Institute by O.G. Villard.
> If you want a paper to read with substantially more information
> on the theory and construction of the antenna authored by the
> inventor see the article in QST, 'The Coplanar-Twin-Loop Antenna'
> September 1988, pages 29-35.
> You can get reprints at ARRL Headquarters.
> The paper claims a null depth on sky-wave (yes, that's sky-wave)
> signals of around 20 dB.
> .
> There was a very nice write-up in WRTH describing different
> models of the CTL plus construction details but the article
> I have doesn't give a publication date. I suspect it was an
> issue around 1989 or a couple of years after. It was the issue
> that contained a review in 'Equipment Test Bench' on the Grundig
> Yacht Boy 220.
> .
> I've seen references to the antenna in a couple of other
> publications as well but I will have to search them out.
> .
> Do a search for the Coplanar-Twin-Loop' for more info.
> You are right, It looks like a simple loop but it isn't.
> .
> Thanks, you got my interest up to try the CTL described in
> the link---it will be awhile before I get to it though.
> .
> R.
> .
> = = = RHF <rhf-mail@usa.com> wrote in message
> = = = news:3ef6beca.0210090753.65265061@posting.google.com...
> .
> "Home Brew" Noise Canceling (Anti-Jamming) Antenna
> .
> This Antenna was Originally Designed as a simple and easy to
> build Anti-Jamming Antenna for Radio Free Europe Listeners.
> They also Claimed that this Antenna should work with reducing
> 'man made' local noise.
> .
> http://origin.rfaweb.org/front/sira/
> .
> ? Has anyone ever built this antenna and tried one of these
> to reduce household noise?
> .
> ? Anyone have any Reports of Successes in Helping to Eliminate
> Noise around the shack?
> .
> ~ RHF
> .
> =UN-QUOTE=
> .
> = = = alins@post.com (Ali N.) wrote in message >

> = = = news:<51990af0.0210252310.15352778@posting.google.com>...
> >
> > The latest issue of Monitoring Times makes reference to the
> > following site:
> >
> > http://www.krsi.net/us-en/antijamming.asp
> >
> > which claims to present an 'anti-jamming' antenna for use by
> > listeners of this > radio station who are located in Iran.
> > The actual radio studios are apparently in California,
> > broadcasting on 17510 KHz.
> >
> > Can somebody with a better knowledge of antennas and electronics
> > explain the principle behind this design, and whether it will
> > actually work!? Are there other types of 'anti-jamming' antennas
> > around?
> >
> > Ali
>
> = = = Dan Jacobson <jidanni@jidanni.org> wrote in message
> = = = news:<874qsol9mc.fsf@jidanni.org>...
> >
> > http://www.rfa.org/front/sira/man.html apparently is a
> > brilliant home brew anti-jamming antenna.
> >
> > I asked them to make an English page along with the Chinese
> > page, but email failed.
> >
> .
> -
> .
> From: Radioguy (nospam@nospam.com)
> Subject: Re: Mike Villard's Magic Anti-Jamming Antenna
> for Shortwave Reception
> Newsgroups: rec.radio.shortwave
> Date: 2000-12-23 18:04:27 PST
> .
> Take a look at the Interference-Reducing Antenna For Shortwave
> Broadcasts on the VOA/IBB WebSite:
> [Anti-Jamming Antenna]
> http://www.ibb.gov/engineering/antenna1.html
> .
> -
> .
> Mike Villard's Magic Anti-Jamming Antenna for Shortwave Reception
> .
> K3MT's Villard Anti-Jamming antenna http://users.erols.com/k3mt/hla/hla.htm
> .
> -
> .

> .
> iane ~ RHF
> .
> .
> -
> .
> = = = From: Dan Jacobson (jidanni@jidanni.org)
> = = = Subject: anti-jamming antenna on Radio Free Asia website
> = = = Newsgroups: rec.radio.shortwave, rec.radio.amateur.antenna
> = = = Date: 2004-03-16 15:19:09 PST
>
> http://www.rfa.org/front/sira/man.html apparently
> is a brilliant home brew anti-jamming antenna.
>
> I asked them to make an English page along
> with the Chinese page, but email failed.
>
> .

4316. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 03:41:21 UTC
From: maxfoo <maxfooHeadFromButt@punkass.com>
Message-ID: <o96i50l2t9vs0402gqata6veoo6oi4bli1@4ax.com>
Source record: 98188
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Wed, 17 Mar 2004 13:08:33 -0700, Jim Thompson <thegreatone@example.com>
wrote:

>I was struck by a thought when I heard the latest Palestinian
>terrorist trick is to send a kid through the border with a back-pack
>bomb triggered by a cell phone....
>
>The Israelis should get a telemarketer's speed dialer and constantly
>dial away... boom... boom... boom...
>
>ROTFLMAO!
>
> ...Jim Thompson

The terrorist will just make 'em more sophisticated.
Like once you dialup the cellphone you have to enter
a N digit code followed by the * key before the bomb
detonates...123456789*...BOOM!!!

Remove "HeadFromButt", before replying by email.

4317. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 03:50:35 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40591ea7_2@news1.prserv.net>
Source record: 98189
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

IIRC, the Apollo capsule wire insulation was FEP, and was ignited when the power conductor it insulated was mechanically pinched and shorted to ground. It overheated enough from fault current to ignite before the breaker tripped.

Kapton tape was blamed in the Swissair 400(?) cockpit fire and crash in Newfoundland(?) a few years back.

Gasoline vapor fuel fires were ignited by early pagers and first generation cell phones which used tiny universal motors with eccentric weights as silent ring annunciators. Find one of those old beasts and try running that motor in a flammable environment.

The technical basis of this is covered in a text: "Intrinsic Safety" by Redding, published by Mc Graw Hill.

--

Crazy George
Remove N O and S P A M imbedded in return address
"DarkMatter" <DarkMatter@thebarattheendoftheuniverse.org> wrote in message news:n85i50lhc42a5dl69ermlinlaed45ua18p@4ax.com...
> On Wed, 17 Mar 2004 21:33:43 GMT, Dave Shrader
> <david.shrader@comcast.net> Gave us:
>
> >
> >So, it is possible that pressing the PTT or the ON/OFF switch causes the
> >necessary spark.
>
> Both in handheld radio transceivers, and cell phones, there are NO
> switches that pass any power level that causes a spark to exhibit upon
> contact or release.
>
> Sheesh.
>
> > Remember the Apollo ground fire.
>
> It was a pure oxy environment. There was, as a rule nothing
> flammable on board. The problem was that materials were not tested
> for their flammability in such an oxy rich environ. The kapton tape
> is what was set afire by the spark, and that fire grew ferociously in
> the oxygen. The oxygen was the oxidizer, not what burned.
>
> > A switch/spark caused
> >an oxygen explosion.

>
> Are you sure you aren't just pulling that one out of you ass as
> well? I was taught that it was the spark caused by a dropped wrench,
> and that tape is what burned. An explosion would have blown the craft
> open from the inside. That did not happen.
>
> One would think that all the switches on Apollo were already gas
> tight.

4318. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 04:26:46 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <61x93z9fuze6$.dlg@news.individual.net>
Source record: 98191
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Wed, 17 Mar 2004 13:08:33 -0700, Jim Thompson wrote:

> I was struck by a thought when I heard the latest Palestinian
> terrorist trick is to send a kid through the border with a back-pack
> bomb triggered by a cell phone....
>
> The Israelis should get a telemarketer's speed dialer and constantly
> dial away... boom... boom... boom...
>
> ROTFLMAO!
>
> ...Jim Thompson

Had the liberals not f'd everything up, this would've been a common
counter-terror measure. You place radio transmitters at sensitive
locations to blow up car bombs before they got close enough to do
damage. The theory is that if the tango pusses out, another tango
remote detonates the bomb, so all bombs have a radio failsafe.
--
Best Regards,
Mike

4319. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 04:29:41 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <cktlrk15p2ss.dlg@news.individual.net>
Source record: 98190
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Wed, 17 Mar 2004 16:35:02 -0700, Mark Fergerson wrote:

> Jim Thompson wrote:
>
>> I was struck by a thought when I heard the latest Palestinian
>> terrorist trick is to send a kid through the border with a back-pack
>> bomb triggered by a cell phone....
>>
>> The Israelis should get a telemarketer's speed dialer and constantly
>> dial away... boom... boom... boom...
>
> If they could figure out from whom they're buying all
> them pre-paid cellphones (in order to generate the number
> lists), it could work. Just keep it running 24/7 with a
> "Sorry, wrong number" message in case an innocent (or
> unfinished bomb) answers.
>
> I figure eventually they'll run out of suicide-bomb
> volunteers. Might as well help if it can be done without
> blowing anyone else up.
>
> Mark L. Fergerson

Do you all think that tangos are dumb enough to trigger the bomb
with the ringer or would the detonator answer first and listen for a
DTMF sequence. Hmmm? Achmed the bomb maker gets a wrong number just
as he's connecting the thing.
--
Best Regards,
Mike

4320. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 04:33:51 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1w0lm7cz70i9$.dlg@news.individual.net>
Source record: 98192
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 00:09:30 GMT, Roger Gt wrote:

> "Paul Burridge" wrote
>: Jim Thompson wrote:
>:
>:>I was struck by a thought when I heard the latest Palestinian
>:>terrorist trick is to send a kid through the border with a
> back-pack
>:>bomb triggered by a cell phone....
>:>
>:>The Israelis should get a telemarketer's speed dialer and
> constantly
>:>dial away... boom... boom... boom...
>:>
>:>ROTFLMAO!
>:
>: Yes, I'm rolling on the floor laughing at all these deaths, too,
> as
>: I'm sure we all are.
>
> Huh?
> He seemed to be laughing at the lame Idea! I also thought it
> funny that anyone would try something which would almost totally
> wipe out the cellular phone service for the entire country...

does a 200 station phone room with auto-dialers all calling one
state wipe out POTs? WTH are *you* talking about?

> All
> to provide a SMALL measure of confidence that no one had a bomb
> attached to a phone. Like it would even work!
> WTH are you referring to? GAL!

--
Best Regards,
Mike

4321. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 04:41:27 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <XL96c.26893$%06.3196@newsread2.news.pas.earthlink.net>
Source record: 98193

Ahhh, enigmatic as usual! ;-) But let me guess:

Do you have alternate attachment points for one or both end(s)
of the antenna, and transfer said end(s) manually from one
attachment to the other?

If so, I would probably call the process "limited re-orientation"
or some such, vs. "rotation." But it's your antenna, so you get to
call it whatever you'd like.

And I guess there's no joy on modelling the average gain of
said antenna over azimuth. Oh well, it was a nice thought. 8-(

Good DX es 73, Ed

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4058f910_1@corp.newsgroups.com...
> Old Ed wrote:
> > But we were discussing the 130 footer, used on 30m.
> > If you can rotate that one, I'm impressed.
>
> Actually, I can rotate that 130 ft dipole. I live on a
> triangular shaped lot so I can rotate it about 60 degrees
> from either end. Presently, I have it oriented so the cloverleaf
> lobes point toward the world's land masses on the higher bands.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4322. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 04:46:14 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1kqskul0fphdi$.dlg@news.individual.net>
Source record: 98194
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On 17 Mar 2004 12:02:15 -0800, John Michael Williams wrote:

> Claims that people have started fires by using
> their cell phone while refueling a car apparently
> are false: See
> http://www.snopes.com/autos/hazards/gasvapor.asp
> and other sites.

There was discussion of this and bad electric fuel pump designs last
year, but I don't recall anyone testing it out.
>
<snip>
>
> So, I think sliding over on a car seat, and thus generating a
> possible static charge, would be more likely to ignite gasoline
> vapor than talking on a cell phone while refueling.

It is more likely and there's a gas station here that has a memo to
that effect (static - mainly in winter) posted where the customers
can *not* see it, duh! No signs on the pumps... The memo says you
should shock yourself on the car befor going to the pump. No one
thought about the vapor from the car on the other side of the
island.

> However, it
> would be useful for someone to repeat this kind of test with an
> actual cell phone, as opposed to a CB radio. The wires should
> be shorter, for one thing . . ..
>
> I'm cross posting to an antenna group, looking for criticism.
>
> John
> jwill@AstraGate.net
> John Michael Williams

--
Best Regards,
Mike

4323. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 04:50:54 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <17adcmss4j0y4.dlg@news.individual.net>
Source record: 98195
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Wed, 17 Mar 2004 19:16:45 -0800, DarkMatter wrote:

> On Thu, 18 Mar 2004 10:02:37 +1300, "Ken Taylor" <ken123@xtra.co.nz>
> Gave us:
>
> snipped previous
>
>>It's a bit of a stretch to think that cell-phones are a problem, whereas the
>>car driving off next to you, with a set of spark plugs going for their
>>lives, is not. Hmmmm.
>>
>>
>
> Yes, I agree. At 40kV these days too, and sure... none of that
> closed system leaks anywhere.... sure. It is ten orders of
> magnitude more dangerous than any handheld (or ear held) transmitter
> is to flammable liquid vapors.
>
> One should turn one's engine off whenever not using the car, let
> alone at fuel pump islands. Always!
>
> The old adage that it costs more to restart an engine than to leave
> it running is bullshit today. Fuel injected (or throttle body)cars do
> not suffer the idle mixture swings or flooding risk of old carbureted
> engines. Unless you are in a very very cold place, turn your friggin'
> engine off when you aren't driving the friggin' car!

The guy next to you with the dangling plug wire arcing away, though.
Make me more determined to have fuel delivered to a home tank.

I got yelled at for leaving the engine running at a deisel pump
once. Some people just don't know how hard t is to ignite the stuff.

--
Best Regards,
Mike

4324. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 04:59:35 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1rghwn2nczgqx$.dlg@news.individual.net>
Source record: 98196
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

On Wed, 17 Mar 2004 13:33:06 -0800, Guy Macon wrote:

> "John Michael Williams" <jwill@AstraGate.net> wrote:
>
>> Thus, it appears it is not feasible to create a
>> hazardous spark with a CB at a gas station.
>
>> So, I think sliding over on a car seat, and thus generating a
>> possible static charge, would be more likely to ignite gasoline
>> vapor than talking on a cell phone while refueling.
>
> Excellent set of experiments! I heartily approve of anyone who
> does an experiment rather than taking someone's word.

Yeah. Amazing how much BS gets foisted on people.
>
> Your methodology seems sound to me.
>
> You might try putting a couple of drops of gasoline on a ceramic
> plate and seeing if your wire is making a spark too small to see
> but large enough to ignite the gasoline.

It's the vapor you want to try to ignite, so conditions will vary
depending on the wind. temperature, and pump rate which iis coutered
by the new vapor recovery systems installed on pumps.

I think the dangling plug wire is more dangerous than even smoking
at the pump. Ever throw a lit cigarette in a pail of gas. The cig
gets extinguished.
>
> Another way of looking at it is with statistics. How many people
> talk on cell phones while refueling? How many fuel fires occur?
>
> ---
>
>|'Doc <w5lz@cwis.net> says...
>
>|>Turning off cell phones and radios seems like a reasonable
>|>precaution while fueling, I don't have a problem with that.
>|>I also don't understand why anyone else would either.
>
> You don't understand why someone might be unwilling to miss
> an incoming call when there is no apparent benefit?

--
Best Regards,
Mike

4325. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 05:04:56 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <16ob93eiayc13$.dlg@news.individual.net>
Source record: 98197
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

On Wed, 17 Mar 2004 13:33:06 -0800, Guy Macon wrote:
<snip>
>
>|'Doc <w5lz@cwis.net> says...
>
>|>Turning off cell phones and radios seems like a reasonable
>|>precaution while fueling, I don't have a problem with that.
>|>I also don't understand why anyone else would either.
>
> You don't understand why someone might be unwilling to miss
> an incoming call when there is no apparent benefit?

Uh, a local Pastor's douche-bag wife recently backed over a BP
station clerk here (while he was measuring the pumps) and drove off.
He's in friggin' pain. Cops pulled the snotty bitch over and she
claimed she didn't know she'd run over him. Was it the cell phone or
the blaring xtian music?
--
Best Regards,
Mike

4326. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 05:09:48 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1qbk6994imnpc.dlg@news.individual.net>
Source record: 98198
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Wed, 17 Mar 2004 21:50:35 -0600, Crazy George wrote:

> IIRC, the Apollo capsule wire insulation was FEP, and was ignited when the
> power conductor it insulated was mechanically pinched and shorted to ground.
> It overheated enough from fault current to ignite before the breaker
> tripped.
>
> Kapton tape was blamed in the Swissair 400(?) cockpit fire and crash in
> Newfoundland(?) a few years back.
>
> Gasoline vapor fuel fires were ignited by early pagers and first generation
> cell phones which used tiny universal motors with eccentric weights as
> silent ring annunciators.

My Motorola Classic has one of those. What are they using now?

> Find one of those old beasts and try running that
> motor in a flammable environment.

OK ;)
>
> The technical basis of this is covered in a text: "Intrinsic Safety" by
> Redding, published by Mc Graw Hill.

--
Best Regards,
Mike

4327. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 05:20:58 UTC
From: Roger Gt <not@here.net>
Message-ID: <_ka6c.25584$D82.1569@newssvr29.news.prodigy.com>
Source record: 98199
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Active8" wrote
: Roger Gt wrote:
: > "Paul Burridge" wrote
: >: Jim Thompson wrote:
: >:
: >:>I was struck by a thought when I heard the latest Palestinian
: >:>terrorist trick is to send a kid through the border with a
: > back-pack
: >:>bomb triggered by a cell phone....
: >:>
: >:>The Israelis should get a telemarketer's speed dialer and
: > constantly
: >:>dial away... boom... boom... boom...
: >:>
: >:>ROTFLMAO!
: >:
: >: Yes, I'm rolling on the floor laughing at all these deaths,
too,
: > as
: >: I'm sure we all are.
: >
: > Huh?
: > He seemed to be laughing at the lame Idea! I also thought it
: > funny that anyone would try something which would almost
totally
: > wipe out the cellular phone service for the entire country...
:
: does a 200 station phone room with auto-dialers all calling one
: state wipe out POTs? WTH are *you* talking about?

Gee - Primitive! Not a Telephone guy I guess......
The last autodialer I worked on was a Dual DS3 line unit with a
router.
2 times 864 lines wide. A few of those would really choke a
network!

: > All
: > to provide a SMALL measure of confidence that no one had a
bomb
: > attached to a phone. Like it would even work!
: > WTH are you referring to? GAL!
:
: Best Regards,
: Mike

4328. Re: GAP Super C - For Real ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 05:27:59 UTC
From: Moe <moebush@thaimail.org>
Message-ID: <pan.2004.03.18.05.27.58.711842@thaimail.org>
Source record: 98200

On Mon, 15 Mar 2004 00:16:23 +0000, GE Lewis, Sr. wrote:

> I wonder if anyone has any experience with this antenna? How much
> does it cost anyway? Seems too good go be true...
>
> Thanks,
> KB5Q

Only handles 200 watts though

4329. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 05:39:21 UTC
From: "Tim Auton"
Message-ID: <2qci50df73n29te8c39vajlfts2d0m2cj2@4ax.com>
Source record: 98201
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Active8 <reply2group@ndbbm.net> wrote:
[bombs]
>Do you all think that tangos are dumb enough to trigger the bomb
>with the ringer or would the detonator answer first and listen for a
>DTMF sequence. Hmmm? Achmed the bomb maker gets a wrong number just
>as he's connecting the thing.

I very much doubt they bother with DTMF decoders. I mean, how often do you get a wrong number? I've had about 4 in my life. They'll just connect the ringer (or vibrate function) to the detonator (with whatever minimal circuitry in between is required - I've never used a detonator!) and then only turn the phone on at the last minute.

It's not dumb to design a remote detonation system that requires the absolute minimum of specialist knowledge and equipment to construct.

Tim
--
Love is a travelator.

4330. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 05:44:46 UTC
From: "Tim Auton"
Message-ID: <4ndi50loirkshdi00l8eh03qfrk1pjrli5@4ax.com>
Source record: 98202
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jim Thompson <thegreatone@example.com> wrote:

>I was struck by a thought when I heard the latest Palestinian
>terrorist trick is to send a kid through the border with a back-pack
>bomb triggered by a cell phone....
>
>The Israelis should get a telemarketer's speed dialer and constantly
>dial away... boom... boom... boom...

You would have to have every phone in the nation ring every couple of
hours. They're not going to be stupid enough to have the phone both
switched on and connected to the bomb until the last minute.

Tim
--
Love is a travelator.

4331. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 06:30:45 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40594215.22CDF273@cwis.net>
Source record: 98203
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

Guy,
I don't understand why anyone would have a cell phone
stuck in their ear every waking moment, especially in a
car, or while fueling, or in a number of other places
where I've seen them. They can be and are a hazard while
driving, and a real P.I.T.A. in public places. (Hurray for
the states that passed a 'no cell phone while driving' law!)
Seriously, how many ~important~ calls have you ever had on
your cell phone when in a public place, or while driving
that couldn't have waited? Cell phones should be water
soluble, or biodegradable...
'Doc

4332. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 08:18:06 UTC
From: BIAS COMMS <biascomms@blueyonder.co.uk>
Message-ID: <2Xc6c.19458$ci1.450932893@news-text.cableinet.net>
Source record: 98206
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

g subs inscribed:

> i found this antenna page ,
> can i use a coil for the use od decoupling the signal?
>
> http://www.packetradio.com/images/6mdipole.gif

Yes. However you should investigate other matching methods - Google for the "Ross Dipole". Also look at Gamma matches and Delta matches - both are viable solutions for unbalanced feeder connection to a balanced antenna (like a dipole).

--
BIAS COMMS

Everything gets easier with practice, except getting up in the morning!

4333. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 08:38:01 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403180038.1d17764@posting.google.com>
Source record: 98208
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

'Doc <w5lz@cwis.net> wrote in message news:<4058BDCC.340A95BF@cwis.net>...
> John,
> It's also possible to start a fire rubbing two sticks
> together, but it isn't as likely to be an accidental thing.
> I would tend to doubt any claims about cell phones starting
> accidental fires unless there has been some modification
> to the phone, or other unusual circumstance. Turning off
> cell phones and radios seems like a reasonable precaution
> while fueling, I don't have a problem with that. I also
> don't understand why anyone else would either. Do I turn off
> my two way radio when fueling? Yes, but mainly because of
> how it's connected (ignition switch).
> If fuel vapor liable to ignite because of RF? Not unless
> the RF field is very strong, or the antenna arcs for some
> reason. Very likely? Not really. Possible? Sure. So using
> a little common sense... what's the problem?
> 'Doc
>
> PS - Cross posting is a sure way of causing misunderstandings.

I was just trying to add some factual information to the
link I gave, which was just a lot of rumor--both pro and con
RF hazards. Check it out.

From time to time, I read postings about people complaining
about others gabbing on a cell phone while (self-serve)
refueling.

I don't follow what you say about cross-posting. I'm not a ham
operator, so if I am making some obvious mistake, I thought
adding the antenna group would get a correction. Is that your
interest?

Hopefully, this thread will end up by putting to rest
fears of cell phones around gas stations, at least from the
RF standpoint. Also, if I'm wrong, and there IS danger
from the RF, someone should be able to correct me. Either way,
it's an interesting topic, don't you think?

John
jwill@AstraGate.net
John Michael Williams

4334. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 08:38:10 UTC
From: <>
Message-ID: <40595e28.2519047@news.usol.com>
Source record: 98209

On Thu, 18 Mar 2004 00:09:30 GMT, "Roger Gt" <not@here.net> wrote:

>
>"Paul Burridge" wrote
>: Jim Thompson wrote:
>:
>: >I was struck by a thought when I heard the latest Palestinian
>: >terrorist trick is to send a kid through the border with a
>back-pack
>: >bomb triggered by a cell phone....
>: >
>: >The Israelis should get a telemarketer's speed dialer and
>constantly
>: >dial away... boom... boom... boom...
>: >
>: >ROTFLMAO!
>:
>: Yes, I'm rolling on the floor laughing at all these deaths, too,
>as
>: I'm sure we all are.
>
>Huh?
>He seemed to be laughing at the lame Idea! I also thought it
>funny that anyone would try something which would almost totally
>wipe out the cellular phone service for the entire country... All
>to provide a SMALL measure of confidence that no one had a bomb
>attached to a phone. Like it would even work!
>WTH are you referring to? GAL!

Actually Israel used this in reverse some years back. They were able
through their counterterroism group to smuggle in a bomb laden cell
phone into one of the terror organizations with the hopes that a
notorious bomb maker "the mechanic" would eventually use it. They
monitored the users of the cell phone until they recognized "the
mechanic's" voice whereupon a signal sent from a small plane sent a
signal to activate the plastic explosive and it killed the "mechanic"
on the spot. Though it wasn't long until some suicide bomber set off a
bomb in some crowded area in revenge.

>

4335. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 08:43:48 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <t0ni509cbms3mkkti2arad2b9guuq6mggd@4ax.com>
Source record: 98210
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 05:39:21 +0000, Tim Auton
<tim.auton@uton.[groupSexWithoutTheY]> wrote:

>>Do you all think that tangos are dumb enough to trigger the bomb
>>with the ringer or would the detonator answer first and listen for a
>>DTMF sequence. Hmmm? Achmed the bomb maker gets a wrong number just
>>as he's connecting the thing.
>
>I very much doubt they bother with DTMF decoders. I mean, how often do
>you get a wrong number? I've had about 4 in my life. They'll just
>connect the ringer (or vibrate function) to the detonator (with
>whatever minimal circuitry in between is required - I've never used a
>detonator!) and then only turn the phone on at the last minute.
>
>It's not dumb to design a remote detonation system that requires the
>absolute minimum of specialist knowledge and equipment to construct.
>

To use the unique cellphone ID to detonate a remote bomb is actually
a very ingenious innovation. No timers to mess with. The terrorist
has full and instant control of the time and place to set off the
bomb.

As Tim says its relatively easy to connect the ringer wires to a
simple circuit to output enough juice to trigger the detonator. Frist
year student project - like using a battery to keep a capacitor
charged and the ringer closes the discharge switch. Boom.

The countermeasure I think, is fairly simple. Every vulnerable public
place which may be targeted by terrorist bomb attacks, should install
cellphone signal blockers.

I believe these are already available and smart dining places and
concert halls have them so that their patrons won't be interrupted by
cellphones. I'll skip the arguments, mostly from cellphone service
providers, against signal blockers that may cause doctors and
emergency workers to miss their calls. Until some better solution
comes along I think this is a good solution. (Hint. Buy shares in
signal blocker companies.) If this suggestion is taken up perhaps
we'll get some peace from those incurable cellphone yakkers who think
the world wants to hear every word they say anywhere.

4336. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 08:59:41 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <KoCdnXmOPqMA-cTdRVn-hQ@comcast.com>
Source record: 98211
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"KLM" <klmok88@yahoo.com> wrote in message
news:t0ni509cbms3mkkti2arad2b9guuq6mggd@4ax.com...
> On Thu, 18 Mar 2004 05:39:21 +0000, Tim Auton
> <tim.auton@uton.[groupSexWithoutTheY]> wrote:
> The countermeasure I think, is fairly simple. Every vulnerable public
> place which may be targeted by terrorist bomb attacks, should install
> cellphone signal blockers.

Not in the US. Intentional interference is illegal. It likely is in most
places.

4337. Re: GAP Super C - For Real ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 09:12:32 UTC
From: "A.N. Onym" <Alxendr_Nicolaievitj_Onym@nowhere.tk>
Message-ID: <40596800.85FC6546@nowhere.tk>
Source record: 98212

It sure LOOKS like tha notorious CFA.

But I have heard somewhere, it is claimed to work in another way
(perhaps
even the correct way - have not seen it myself - the CFA & EH does not
work as claimend, if anyone has failed to get that message)

Moe wrote:

> On Mon, 15 Mar 2004 00:16:23 +0000, GE Lewis, Sr. wrote:
>
> > I wonder if anyone has any experience with this antenna? How much
> > does it cost anyway? Seems too good go be true...
> >
> > Thanks,
> > KB5Q
>
> Only handles 200 watts though

4338. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 09:55:04 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403180155.49eaa536@posting.google.com>
Source record: 98213

"aunwin" <aunwin@insightbb.com> wrote in message news:<RE66c.33727$po.297044@attbi_s52>...
> Mark you should have no room for complaints.

Who's complaining? I could really give a rats ass about you or your
antenna....

I offered you unhindered access
> to my work including the computor programing system which I would purchase
> at my own expense together with the programing I used to substantiated my
> findings.

Why do I need yours? I have many programs. They all pretty much do the
same thing.

You refused that offer prefering to stay with the pack and
> ridicule all.

I only ridicule horsecrap Art. I asked the guy a simple frigging
question..
WTF are you going to do, that his money is on? So far, he hasn't
answered. I don't think he knows. If that is ridicule,that just too
damn bad isn't it...What a whiny ass old fart you are, Art.

You have had access to the patent write ups many times as they
> have been brought forward many times by members to serve at a ridicule
> point and all you had to do was to click on what was supplied.

Are you talking about the rube goldberg looking thing? I've seen it...
> They also
> found a very old page that I had describing the loop/dipole antenna together
> with the drawings and you are still complaining.

Complaining my ass.

I have personally informed
> you that EZNEC was not a suitable vehicle for this work

Bullshit, Art. Plain and simple.

but you proceded on
> the point that you were proficient in any sort of computor programing,

They pretty much all use the same basic engines...

> and you are still complaining ,

Again, bite me Art. Complaining my ass. You just wait till I'm REALLY
complaining you frigging fool. Don't screw with me. You piss me off,
and I WILL be your worst frigging nightmare. I'll stick to you like

dried turd particles on a baby's ass. Everything you say that is BS, I
will comment on. Is that what you really want? As is it, I only
comment on about 50% of it...

and now you bring up a drawing that you say
> you put before me even tho you had the option of looking at the many
> drawings available.

Art, you frigging fool, that is the picture from the modeling program
itself. I sent it to you. You looked at it, and ok'ed it.
I just looked at the drawing that you proffer and I defy
> anybody to look at that and know what it represents.

Jeeze...What a frigging idiot you are, Art.

Time and time again I
> tried to make peace with you but you chose to tag along with those who have
> attacked many contributors in the past since they have a long winning record
> in ousting many others.

No Art. I won't kiss your ass. Tag along? Tag along with whom? WTF are
you talking about?

You decided on your nest a long time ago

My nest? Crap....
> so you really have no reason to complain as you still have your cohorts
> around you that tend to belittle all.

Bite me Art. I could give a flying #$%^ what the others say or think.
That includes you, you old fart.

Your crying now falls on deaf ears.

You'll think crying...
> Nuff said

Yea, I think so....
> 'Good day' I think he said
> Art

Yea, later Art. MK

4339. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 10:28:15 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403180228.51881ee6@posting.google.com>
Source record: 98214

"aunwin" <aunwin@insightbb.com> wrote in message I have personally informed
> you that EZNEC was not a suitable vehicle for this work but you proceded on
> the point that you were proficient in any sort of computor programing,

BTW, since your memory is suspect, and seems to be failing...I did NOT use EZNEC. I only have the eznec demo, and the demo did not have enough segments to be able to model that with reliable results. "I think it would have been good enough for gov work though." As far as programming, what does that have to do with anything? I "program" flight sim software. Not antenna modeling software. What does my programming abilities have to do with your antenna, or the modeling of it? Thats easy...None. MK

4340. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 10:30:45 UTC
From: Dave Head <rally2xs@att.net>
Message-ID: <jlui50d900sf6o351jg7vi91sanv0qg7si@4ax.com>
Source record: 98215
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 05:39:21 +0000, Tim Auton
<tim.auton@uton.[groupSexWithoutTheY]> wrote:

>Active8 <reply2group@ndbbm.net> wrote:
>[bombs]
>>Do you all think that tangos are dumb enough to trigger the bomb
>>with the ringer or would the detonator answer first and listen for a
>>DTMF sequence. Hmmm? Achmed the bomb maker gets a wrong number just
>>as he's connecting the thing.
>
>I very much doubt they bother with DTMF decoders. I mean, how often do
>you get a wrong number? I've had about 4 in my life. They'll just
>connect the ringer (or vibrate function) to the detonator (with
>whatever minimal circuitry in between is required - I've never used a
>detonator!) and then only turn the phone on at the last minute.
>
>It's not dumb to design a remote detonation system that requires the
>absolute minimum of specialist knowledge and equipment to construct.
>
>
>Tim

New anti-terrorist weapon => telemarketers. They call everybody. Should wipe
out the bomb makers in about a week.

Dave Head

4341. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 12:03:29 UTC
From: Paul Burridge <pb@osiris1.notthisbit.co.uk>
Message-ID: <ab3j501tc86fim6n5pheb7cmtnhieo1e83@4ax.com>
Source record: 98216
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On 17 Mar 2004 12:02:15 -0800, jwill@AstraGate.net (John Michael Williams) wrote:

>So, first conclusion: To get even a 1 V spark would take a
>wire at least 9 m long, all somehow kept within 1 m of the
>transmitter. Thus, it appears it is not feasible to create a
>hazardous spark with a CB at a gas station.

I'm not entirely surprised. When CB first took off in the UK about 25 years ago some bright spark (no pun intended) discovered that the then petrol pump meters could be slowed down by keying-up whilst filling up and you could get a tank full of juice for a fraction of the price. As soon as the petrol companies cottoned on to this they put around the scare story about CBers risking explosions by making use of this scam. I never bought it, partly because | have a big static problem and during very dry days I get a massive spark discharge upon closing the car door. This invariably happens at petrol stations, of course, as it does everywhere else. I've never been blown up yet.
--

The BBC: Licensed at public expense to spread lies.

4342. rotator and tilter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 13:04:32 UTC
From: GET NJ <aolsz@bellatlantic.net>
Message-ID: <40599E5C.1A10386B@bellatlantic.net>
Source record: 98217

I'm looking for a rotator with a tilter for a parabolic antenna for an amateur application. Does anybody have some suggestions/recommendations?

I'd like the rotator to be able to go through perhaps 400 degrees (at least 360). I'd guess that 45 degrees would be OK for the tilt.

The parabolic antenna would probably be mounted on a 10 foot metal pole. The antenna itself weighs around 5 pounds.

--

GET NJ
Free Ads -- AND LOTS MORE!
http://www.getnj.com

4343. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 13:08:26 UTC
From: Rene Tschaggelar <none@none.net>
Message-ID: <40599f64$0$723$5402220f@news.sunrise.ch>
Source record: 98218
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jim Thompson wrote:
> I was struck by a thought when I heard the latest Palestinian
> terrorist trick is to send a kid through the border with a back-pack
> bomb triggered by a cell phone....
>
> The Israelis should get a telemarketer's speed dialer and constantly
> dial away... boom... boom... boom...

Not really. The technology is far better.
Here you can get those industial mobiles with a serial
output. You can send an SMS which's string can be decoded by
software of you own microcontroller.

Rene
--
Ing.Buero R.Tschaggelar - http://www.ibrtses.com
& commercial newsgroups - http://www.talkto.net

4344. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 13:25:43 UTC
From: Spehro Pefhany <speffSNIP@interlogDOTyou.knowwhat>
Message-ID: <4v8j501g3sr2oh7b1u5vjd45epsp5bajkp@4ax.com>
Source record: 98119
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 14:08:26 +0100, the renowned Rene Tschaggelar
<none@none.net> wrote:

>Jim Thompson wrote:
>> I was struck by a thought when I heard the latest Palestinian
>> terrorist trick is to send a kid through the border with a back-pack
>> bomb triggered by a cell phone....
>>
>> The Israelis should get a telemarketer's speed dialer and constantly
>> dial away... boom... boom... boom...
>
>Not really. The technology is far better.
>Here you can get those industial mobiles with a serial
>output. You can send an SMS which's string can be decoded by
>software of you own microcontroller.

One could easily imagine a semi-smart anti-convoy bomb that could be
remotely triggered by a hidden operator to go off after a programmable
delay (with password), so signal jamming would be relatively
ineffective. Nasty, and hobbyist-level technology once you have the
phone.

Best regards,
Spehro Pefhany
--
"it's the network..." "The Journey is the reward"
speff@interlog.com Info for manufacturers: http://www.trexon.com
Embedded software/hardware/analog Info for designers: http://www.speff.com

4345. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 13:59:46 UTC
From: Syd Rumpo <sydrumpox@clarat.co.uk>
Message-ID: <CgsXSEFStaWAFwJ6@clara.co.uk>
Source record: 98120
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

In message <Qdednb1K2I19bMXdRVn-hw@speakeasy.net>, Guy Macon
<http@?.guymacon.com.invalid> writes
>
[Snipped]
>
>It's silly to worry about cell phones when every car that drives in
>has a high-voltage ignition system under the hood, 12V spark-producing
>switches in the door frames, and a hot catalytic converter underneath
>the car.

The RF/electrical bit seems like a red herring to me, but I suppose it
would be better to give full attention to the flammable liquid you're
pumping rather than a telephone conversation.

--
Syd Rumpo

4346. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 14:21:38 UTC
From: NoSpam@daqarta.com
Message-ID: <4059abfe.3923645@news.itd.umich.edu>
Source record: 98122
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Wed, 17 Mar 2004 21:33:43 GMT, Dave Shrader
<david.shrader@comcast.net> wrote:

>John Michael Williams wrote:
>
>SNIP
>>
>> However, the first radios transmitted
>> sparks, so in principle it should be possible to
>> transmit near a long wire separated by a small gap from
>> ground or another wire and get a small spark. So, I
>> decided to try an experiment.
>>
>SNIP
>
>There is one other potential source for a spark that you did not
>investigate.
>
>A make/break contact in a switch causes sparks when opened. The US
>Military specifies special shielded switches for their explosive, gas
>vapor, etc., environments.

This reminds me of a story... (pause while room clears out).
Years ago I was an engineering student working for Cadillac
Motor Car. Electronic fuel injection was new then, and there
had been a couple of fires in the field that were suspected to
have been caused by leaky fuel lines, which were at higher
pressure than on the old carbureted cars. There were competing
theories, however, as to what exactly was setting off the fire.
I got assigned to help the guy doing the experiments to find out.

He had a car fitted with a plexiglas hood, topped by a small tower
with a high-speed movie camera pointing down for a good look
at anything happening in the engine compartment. Two fire
extinguishers were arranged to cover the under-hood area,
and a fuel vapor sensor was also installed there. The way
it was supposed to work was that he would drive and I would
operate the hand-pumped sensor, and at the first sign of fire
he would trigger the extinguishers. We ran all the tests
at the GM Proving Grounds in Milford, Michigan.

We tried making leaks in the fuel injection hoses. We had gas
spraying all over under the hood, collecting in pools on the
hot exhaust manifold. We tried poking holes in the spark

plug wire insulation. Nothing, no fire.

Finally I got a bright idea, and loosened the ground for the
air conditioner compressor clutch. The idea was that this
was a big inductor, and if the circuit opened there would
be a big spark. Then all we needed to do was get the
wire to bounce. We tried swerving from side to side,
and driving on bumpy tracks, but no deal. I was *sure*
that this spark would do the job, but we couldn't tell
if we were really getting the spark. So finally I stood on the
hood, holding on to the camera tower, so I could see
for myself if there were sparks. He drove down the
bumpy road one more time, and I did in fact see a spark:
The high-speed movie shows the fire spreading out
from it, more and more on each frame. Also on each
frame was the back of my head, moving away more
and more on each frame, until the extinguishers doused
everything. What a rush!

Them was the good ole' days.....

Bob Masta
dqatechATdaqartaDOTcom

D A Q A R T A
Data AcQuisition And Real-Time Analysis
www.daqarta.com

4347. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 14:40:56 UTC
From: Norbert <pa7nrNNOSPAMMM@qsl.net>
Message-ID: <Wxi6c.6682$PC1.144632@zonnet-reader-1>
Source record: 98121

> Hi,
>
> I have always been taught that electrical and magnetic RF fields
> went always together. You couldn't produce one without the other
> and vice-versa.
>
> Then I read about mag-loops having better RX noise immunity than
> normal antennas because they react to magnetic fields, whilst
> man-made noise occurs mostly on electrical fields.
>
> ??????
>
> If both fields go together, how can noise be greater in the
> electrical field than in the magnetic one? Does that mean that
> you can effectively produce one without the other?
>
> Taking it further, if you can _receive_ one while rejecting the
> other, then, by the reciprocity law, you should be able to
> produce one without the other.
>
> What is (where am I) wrong?
>
> EA3FYA - Toni

Hi Toni,

The Magnetic field near a magnetic loop is stronger than the Electric field.
A few meters away from the loop the magnetic field and electric field
produced by the antenna get more equal. The antenna is less sensitive to
pick up man made noise that is mostly produced in the electric field and
often comes from the building close to your antenna. But also noise from
industrial areas and other sources can cause trouble.

An other thing is the high selectivity of the magnetic loop. It acts as a
filter and
suppresses unwanted signals dramatically. I have quite some information and
pictures on my homepage about magnetic loops in practice and some technical
explanations about how they work.

I have several loops working here.

73, Norbert (PA7NR)
http://www.qsl.net/pa7nr/index.html

4348. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 14:42:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4059b57d$1_5@corp.newsgroups.com>
Source record: 98123

Old Ed wrote:
> Do you have alternate attachment points for one or both end(s)
> of the antenna, and transfer said end(s) manually from one
> attachment to the other?

I have three poles arranged roughly in a triangle. My antenna has
quick disconnects on each end. It takes maybe three minutes to
rotate the antenna by 60 degrees.

> And I guess there's no joy on modelling the average gain of
> said antenna over azimuth. Oh well, it was a nice thought. 8-(

I offered to publish the azimuthal radiation pattern so you can
be the one to waste your time adding up 360 gains.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4349. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 14:47:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4059b6df_5@corp.newsgroups.com>
Source record: 98124
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Paul Burridge wrote:
> I've never been blown up yet.

You've never died yet, either. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4350. Re: Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 15:04:40 UTC
From: richardharrison@webtv.net
Message-ID: <11894-4059BA88-340@storefull-3252.bay.webtv.net>
Source record: 98125

Richard Clark wrote:
"How many pF capacitance in your top hat?"

How many degrees in your vertical?
What`s the ground system?
What`s the periphery of your vertical?
What`s the surge impedance of your vertical?
What other loading are you using ?

ON4UN works examples in the 2nd edition of "Low-Band DXing". His examples happen to have slightly more than 100 pF when there`s no loading coil. I`ve seen other top loading capacitance values of 100-500 pF.

ON4UN`s capacitance hat, as used with a 40-foot vertical pipe on 160 meters which has a 166-microhenry loading coil at the top, has 43 pF.

XL must equal Xc in the antenna circuit because the antenna must be resonant to maximize current and radiation.

The 19th edition of the ARRL Antenna Book says on page 6-36:
"For estimating the capacitance of a T antenna made of wires, an approximation is to use 6 pF per meter for vertical wires, and 5 pF per meter for horizontal wires." With parallel wires, the total capacitance must be discounted when the wires are close together.

Best regards, Richard Harrison, KB5WZI

4351. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 16:18:55 UTC
From: panteltje@yahoo.com
Message-ID: <d75ca6e4.0403180818.2541c52b@posting.google.com>
Source record: 98126
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Terry Given" <the_domes@xtra.co.nz> wrote in message
news:<MJc6c.8716$rw6.174739@news.xtra.co.nz>...

> a better technique would be for the israeli government to pull their heads
> in, and start acting like humans instead of nazis (deliberate comparison - I
> am continually astounded that this behaviour comes from a people who
> survived the Holocaust - surely the darkest moment in human history).
>
> Actually attempt to reach a meaningful peace settlement, thereby getting
> on-side with the bulk of the palestinian population, most of whom just want
> to get on with their lives.
>
> this would of course not deter the individual fanatical palestinian
> lunatics, but would seriously erode their support base. The individual
> nutters could be whacked one at a time (dont blow up an entire apartment
> building killing dozens of kids to get one suicide bomber - that doesnt
> help, and is no better than the suicide bombers behaviour).
>
> No, I am NOT an apologist for suicide bombers - not those that target
> civilians at any rate. I find it odd that its not OK for suicide bombers to
> kill soldiers though, but it is OK for soldiers to kill suicide bombers
>
> unfortunately its not likely to happen. Little things like the clearly
> observable FACT that decades of repressive behaviour towards the
> palestinians has NOT resolved the problem, but made it WORSE, seem to have
> escaped the notice of successive israeli governments. so much for "an eye
> for an eye" being of any practical use.
>
> I am not interested in arguments about whether or not Israel should exist
> (it does), who was originally right or wrong (6-day war etc) or any other
> pointless arguments. The current situation exists, time doesnt flow
> backwards, and if a real solution is not found, the terrorism will not only
> continue, but will coninue to get worse. Neither side seems interested in
> moving forward though, they are caught up in an ever-escalating round of
> murderous tit-for-tat.
>
> France, Spain and Britain on the other hand have endured terrorism for
> decades, pretty much without resorting to such behaviour (bloody sunday is
> probably a good example of the brits losing the plot, and its pretty clear
> that it was a BAD idea)

Agreed, they have lost sense of being human.
Hey, I am ADSL now! But in win98.... so I have to use google...
untill I write scripts to post via google..... in Linux, anyways,

you can complain about little kids blowing themselves up, but Israel
blows up civilians randomly from helicopters (usually they fail to hit whoever
it was they ware after).
In my view they are just a buch of religious fanatic killers with black hats.
Without compassion, some sort of easing the tension, it will stay
an impossible situation.
Unil the terrorists get nukes, then there will be no Jerusalem.
It is as predictable as a TTL timer, only one outcome possible.
It is probably far to late for Israel to change that outcome.
JP

4352. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 16:29:07 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403180829.34db72d3@posting.google.com>
Source record: 98127

nm5k@wt.net (Mark Keith) wrote in message
news:<25eb70d7.0403180155.49eaa536@posting.google.com>...

On reflection, I guess I got a little testy with Art. But he provoked
me...
But I do apologize for the somewhat nasty comments.. But, I do not
suffer fools well.
Anyone can look in google, and read the threads themselves. When I
modeled that antenna, I nearly had to jump through hoops to get an
accurate description, but I finally got his ok, as all can read. I
modeled the thing exactly as he described, eventually, and the results
did not agree with his ideas. What was his only comment to the whole
ordeal and modeling exercise?

"quote"
"Good for you Mark! You have done a lot of good work on it' and you
got
so close.
So we put you down for " it won't work as stated,"Your opinion is as
good as any and you are not beating around the bush or hedging
Have a great week end
Art"

Unquote...

Note the "you came so close"....ONLY if I had results that agreed with
his, whole the results have been final. The results of the modeling
did not suit him, so he had no further comment. I see no claim above
that I "butchered" the model or diagram of the 20m dipole involved.
Only in the beginning, when I doubled the size to 40m. This was before
his thread "a tutorial", so I had no way of knowing what band he
wanted.

The links to the threads involved can be read at these URLS. They link
to my search, but will read the whole threads.

http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&threadm=25eb70d7.0208130542.726670a7%40
posting.google.com&rnum=24&prev=/groups%3Fas_q%3D%26num%3D50%26as_scoring%3Dr%26hl%3Den%26
ie%3DISO-8859-1%26btnG%3DGoogle%2BSearch%26as_epq%3D%26as_oq%3D%26as_eq%3D%26as_ugroup%3Dr
ec.radio.amateur.antenna%26as_usubject%3D%26as_uauthors%3Dnm5k%40wt.net%26as_umsgid%3D%26l
r%3D%26as_qdr%3D%26as_drrb%3Db%26as_mind
3D12%26as_minm%3D7%26as_miny%3D2002%26as_maxd%3D18%26as_maxm%3D9%26as_maxy%3D2002%26safe%3
Dimages

http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&threadm=25eb70d7.0207272039.66065601%40
posting.google.com&rnum=44&prev=/groups%3Fas_q%3D%26num%3D50%26as_scoring%3Dr%26hl%3Den%26

ie%3DISO-8859-1%26btnG%3DGoogle%2BSearch%26as_epq%3D%26as_oq%3D%26as_eq%3D%26as_ugroup%3Drec.radio.amateur.antenna%26as_usubject%3D%26as_uauthors%3Dnm5k%40wt.net%26as_umsgid%3D%26lr%3D%26as_qdr%3D%26as_drrb%3Db%26as_mind
3D12%26as_minm%3D7%26as_miny%3D2002%26as_maxd%3D18%26as_maxm%3D9%26as_maxy%3D2002%26safe%3Dimages

http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&threadm=25eb70d7.0208091444.67808561%40posting.google.com&rnum=29&prev=/groups%3Fas_q%3D%26num%3D50%26as_scoring%3Dr%26hl%3Den%26ie%3DISO-8859-1%26btnG%3DGoogle%2BSearch%26as_epq%3D%26as_oq%3D%26as_eq%3D%26as_ugroup%3Drec.radio.amateur.antenna%26as_usubject%3D%26as_uauthors%3Dnm5k%40wt.net%26as_umsgid%3D%26lr%3D%26as_qdr%3D%26as_drrb%3Db%26as_mind
3D12%26as_minm%3D7%26as_miny%3D2002%26as_maxd%3D18%26as_maxm%3D9%26as_maxy%3D2002%26safe%3Dimages

Art, if two years later, you don't like the model, do it yourself,
and post the results for inspection. Just quit all this whining.
Whine, whine, whine...Thats what gets my goat...And this whining
involved me....MK

4353. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 16:36:29 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <neA8xHGNAdWAFwfQ@jmwa.demon.co.uk>
Source record: 98128
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that Terry Given <the_domes@xtra.co.nz>
wrote (in <MJc6c.8716$rw6.174739@news.xtra.co.nz>) about 'Cellphones and
Bombs', on Thu, 18 Mar 2004:

>France, Spain and Britain on the other hand have endured terrorism for
>decades, pretty much without resorting to such behaviour (bloody sunday
>is probably a good example of the brits losing the plot, and its pretty
>clear that it was a BAD idea)

I think it's almost certain that that was simply a normal British Army
cock-up that went tragically wrong. You know, everyone's keyed up,
someone hears what might be a shot but wasn't, gives orders to fire
(maybe in the air), someone else hears those shots .... before senior
officers can react (especially if the radios don't work, which was
normal at the time, I believe), there is a fire storm.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4354. Capacitance of a Top Hat.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 16:46:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3cjp3agr1@hercules.btinternet.com>
Source record: 98129

Even if one knows the capacitance of a top-hat it's of no use unless one
also knows the value of the inductance associated with it.

If the dimensions of a top-hat are tediously experimentally varied until the
antenna is tuned to resonance then one still has no idea either of the
capacitance or inductance. Not that the values would be of any use to
anybody after the job is done. And in all likelihood the experimental
procedure would not result in an optimum configuration.

What is needed are the means of *predicting* top-hat capacitance even before
construction materials are obtained. Optimum construction, or suitable in
some sense, could then be chosen.

Readers may wish to be reminded, from given dimensions program TOPHAT2
computes the performance of top-capacitance-loaded vertical antennas, not
necessarily very short as for mobile operation. In the process various data
of interest are produced including capacitance of the top-hat.

The top-hat consists of N radial wires optionally surrounded by a wire ring.
As N is increased capacitance increases until it is the same as a disk of
the same diameter. Capacitance also depends to a limited extent on height
above ground.

For good measure the program also computes L and C values of the base
matching L-network to 50 ohms.

Download in a few seconds from website below self-contained program TOPHAT2
and run immediately.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

4355. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 17:00:24 UTC
From: richardharrison@webtv.net
Message-ID: <28477-4059D5A8-785@storefull-3254.bay.webtv.net>
Source record: 98130

Cecil, W5DXP wrote:
"Have you ever actually tried one of those? (20 dBI gain for 200 degrees of the horizontal, a loop closely coupled for supergain)"

Excellent question.

J.D. Kraus is the leading exponent of the "supergain antenna"(W8JK) which he warns has a price in low feedpoint impedance, low efficiency, and reduced bandwidth (higher Q).

Felow author F.E. Terman reiterates Kraus` caveats.

Kraus says the W8JK has a gain of 5.8 dBi. That is pretty good for two 1/2-wave elements and compares with a 3-element Yagi. When you replace the straifgt elements in a Yagi with loops to make a "quagi" you may gain about 2 dB. Design it for maximum gain, and you may pick up about 2 more dB. So, with a "supergain quagi" why wouldn`t you expect gain to be limited tio about 10 dB.

The W8JK pattern is a figure-8 almost like a dipole but it gets 5-6 dBi gain from reorientation of energy and that is 3-4 dB better than a dipole. An array of two close-spaced quads will probably be sharper yet. The W8JK pattern is shown in Fig 71 on page 8-50 of the 19th edition of the ARRL Antenna Book. It seems to have about 100-degrees of beamwidth in forward and reverse directions, so that may qualify as 200-degrees.

Best regards, Richard Harrison, KB5WZI

4356. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 17:03:15 UTC
From: "Dan Richardson"
Message-ID: <s9lj50dvgbfvt1e692jr9bedh2itpa02j7@4ax.com>
Source record: 98131

On Thu, 18 Mar 2004 08:42:03 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>I offered to publish the azimuthal radiation pattern so you can
>be the one to waste your time adding up 360 gains.

Cecil,

If you wish you can send me the *.ez file and I'll run it with
MultiNec using the EZNEC engine. As MultiNec is an Excel worksheet it
is very easy to set up an unused cell to give the average gain of a
polar plot.

Or if you wish you can do it youself. MultiNec can be downloaded at:
http://www.qsl.net/ac6la/

73
Danny, K6MHE

4357. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 17:56:45 UTC
From: bigcat@meeow.co.uk
Message-ID: <a7076635.0403180956.7c4f9316@posting.google.com>
Source record: 98132
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

jwill@AstraGate.net (John Michael Williams) wrote in message
news:<4032bf27.0403180038.1d17764@posting.google.com>...

> I was just trying to add some factual information to the
> link I gave, which was just a lot of rumor--both pro and con
> RF hazards. Check it out.
>
> From time to time, I read postings about people complaining
> about others gabbing on a cell phone while (self-serve)
> refueling.
>
> I don't follow what you say about cross-posting. I'm not a ham
> operator, so if I am making some obvious mistake, I thought
> adding the antenna group would get a correction. Is that your
> interest?
>
> Hopefully, this thread will end up by putting to rest
> fears of cell phones around gas stations, at least from the
> RF standpoint. Also, if I'm wrong, and there IS danger
> from the RF, someone should be able to correct me. Either way,
> it's an interesting topic, don't you think?

You may have missed out one thing: did you try this with any resonant loads? Resonant loads are not so hard to come by at the higher frequencies.

Another question concerns spillage of gas: if youre yacking away its much easier to spill fuel. I cant draw any conclusions but one has to at least look at these factors.

Regards, NT

4358. Re: rotator and tilter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 18:06:47 UTC
From: KA9CAR <ka9car@a_r_r_l_.net>
Message-ID: <c3cofo$29dc$1@news1.tribune.com>
Source record: 98133

All of the Yaesu rotators seem to go 450 degrees. I have the bottom of the line 450 and it goes 450. The az el version they sell seems to be based on that rotator and it may go around as well.

.
KA9CAR

"GET NJ" <aolsz@bellatlantic.net> wrote in message
news:40599E5C.1A10386B@bellatlantic.net...
> I'm looking for a rotator with a tilter for a parabolic antenna for an
> amateur application. Does anybody have some
> suggestions/recommendations?
>
> I'd like the rotator to be able to go through perhaps 400 degrees (at
> least 360). I'd guess that 45 degrees would be OK for the tilt.
>
> The parabolic antenna would probably be mounted on a 10 foot metal
> pole. The antenna itself weighs around 5 pounds.
>
> --
>
> GET NJ
> Free Ads -- AND LOTS MORE!
> http://www.getnj.com
>
>

4359. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 18:11:32 UTC
From: richardharrison@webtv.net
Message-ID: <11893-4059E654-793@storefull-3252.bay.webtv.net>
Source record: 98137

I attributed the question:
"Have you ever actually ttried one of those?" to Cecil Moore. Mark Keith asked as a response to Cecil. Sorry for the mistake, but it is an excellent question that belongs to Mark Keith.

Best regards, Richard Harrison, KB5WZI

4360. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 18:20:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4059e88c$1_2@127.0.0.1>
Source record: 98134

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "Have you ever actually tried one of those? (20 dBI gain for 200 degrees
> of the horizontal, a loop closely coupled for supergain)"
>
> Excellent question.

Richard, my posting was a tongue-in-cheek joke.
That antenna has an efficiency far in excess of 100%.
--
73, Cecil, W5DXP

4361. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 18:22:14 UTC
From: Joseph Fenn <jfenn@lava.net>
Message-ID: <c3cpcm$3vs$1@xuxa.iecc.com>
Source record: 98135
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

How in the hell can the CLOCK detector tell any difference between
the time signal from WWV or WWVH. They are both on exact same
frequecies, the time tick is identical on both !!!!
Kokomo Joe
WWVH on Kauai has a consistantly strong signal. Albeit at times
is totally off the air several times in any given month.

****
* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
****

On Wed, 17 Mar 2004, N8KDV wrote:

>
>
> Scott Dorsey wrote:
>
> > tommyknocker <tomynokr@uucp.hell> wrote:
> > >Forget about getting an atomic clock to set in Hawaii. The signal is
> > >simply too weak. Atomic Time (who I bought my dual time clock from) says
> > >that it helps if you point the antenna (apparently they just use ferrite
> > >rod antennas-just like in a cheap transistor radio-to recieve) towards
> > >Fort Collins, which is due east of my QTH.
> >
> > Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
> > On AM car radios, tape recorders, sometimes even rice cookers.
> > --scott
>
> That may be the case Scott, but the 'atomic clocks' they are speaking of use
> the WWVB signal from Ft. Collins, Colorado on 60 KHz to set their time
> automatically.
>
> That signal may indeed not be propagating well enough to be of use in Hawaii.
>
> Steve
> Holland, MI
> Drake R7, R8 and R8B
>
> http://www.iserv.net/~n8kdv/dxpage.htm
>
>
>
>

4362. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 18:22:31 UTC
From: "Eric F. Richards" <efricha@dim.com>
Message-ID: <c3cpd7$454$1@xuxa.iecc.com>
Source record: 98136
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

kludge@panix.com (Scott Dorsey) wrote:

> In article <c39tgn$kt6$1@xuxa.iecc.com>,
> CA was in NJ <cainnj.cjb.net@cainnj.REVERSE_TO_REPLY__SPAMMERS_SHOT_ON_SIGHT> wrote:
> >Scott Dorsey wrote:
> >
> >>Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
> >>On AM car radios, tape recorders, sometimes even rice cookers.
> >
> >The topic is WWVB, the binary signal. WWVH is the voice signal, which an
> >autosetting clock will not understand.
>
> I thought WWVH also had BCD data a couple times an hour? Or has that been
> stopped along with the Omega navigation beacons?

If the signal format is *exactly* identical to WWV it has a continuous
time signal being sent as a 100 Hz tone at 1 bps. If you can't hear
it on your radio (because of "comm grade" headphone or speaker or
ears), you can use skysweeper in free demo mode and see the bits clear
as day in the waterfall display.

>
> Is there no VLF facility in Hawaii comparable to WWVB?
> --scott

--
Eric F. Richards, efricha@dim.com
"Nature abhors a vacuum tube." -- J. R. Pierce, Bell Labs, c. 1940

4363. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 18:29:37 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4059ead0$1_2@127.0.0.1>
Source record: 98138

Dan Richardson < wrote:
> If you wish you can send me the *.ez file and I'll run it with
> MultiNec using the EZNEC engine.

Hi Danny,
I'm at work and the file is at home, but it is just a 130 ft.
dipole, 40 ft. high, used on 10.125 MHz over average ground.

The wire in EZNEC looks like: 0, 0, 40 130, 0, 40 #14 131
--
73, Cecil, W5DXP

4364. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 18:39:55 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403181039.531bbfde@posting.google.com>
Source record: 98139

Richard,

I think I see the problem here. The Fourier transform considers its input over all time, from the beginning of time until eons into the future. Its output is a frequency-domain spectrum which is time-independent. That spectrum exists for all time, unchanging, to accurately represent the input waveform. So from a Fourier transform standpoint, there is not a spectrum associated with an edge, and a different spectrum associated with "flat" parts of the waveform. The integral runs from minus infinity to plus infinity. And to the degree you've done the math exactly, you can exactly reconstruct the whole input over all time from that single spectrum.

Of course, our practical approximations to the Fourier transform have to limit the time over which the input is considered. So with a modern "FFT spectrum analyzer," for example, you would indeed get zero output when the input is zero, an interesting spectrum when the input takes a step, and a simple DC output when the input is the flat DC level after the step has been taken. If you get into using such an analyzer, please do take the time to learn about that approximation to the Fourier transform, and also about "windowing" and why it's needed and how to select the proper window for what you're doing.

Cheers,
Tom

"Richard Fry" <rfry@adams.net> wrote in message
news:<c3akb3$257jn2$1@ID-175933.news.uni-berlin.de>...
> "Allen Windhorn" wrote:
>
> > One way to look at it is to consider the harmonics produced by all the
> > rising edges, and spearately consider the harmonics produced by the
> > falling edges. Both contain all of the harmonics, but since they are
> > displaced in phase, some of them get cancelled.
> >
> > Obvious example: a square wave contains only odd harmonics.
> _________________
>
> Would that not require the components of rising edges to be time-coincident
> with a trailing edges? How could that occur when the these transitions
> occur at different times?
>
> RF
>
> Visit http://rfry.org for FM broadcast RF system papers.

4365. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 18:45:20 UTC
From: Wim Ton <wimton@blueyonder.co.uk>
Message-ID: <57m6c.12811$F.8054@news-binary.blueyonder.co.uk>
Source record: 98140
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

One thing that may set off a detonator is a RF field with a wavelength in the order of the detonator leads.

From the time I worked with detonators on oilrigs, an absolute radio-silence was required till the charge was safely lowered down the borehole.

Wim

4366. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 19:05:14 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <drpzqn7pkg30.dlg@news.individual.net>
Source record: 98141
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 10:30:45 GMT, Dave Head wrote:

> On Thu, 18 Mar 2004 05:39:21 +0000, Tim Auton
> <tim.auton@uton.[groupSexWithoutTheY]> wrote:
>
>>Active8 <reply2group@ndbbm.net> wrote:
>>[bombs]
>>>Do you all think that tangos are dumb enough to trigger the bomb
>>>with the ringer or would the detonator answer first and listen for a
>>>DTMF sequence. Hmmm? Achmed the bomb maker gets a wrong number just
>>>as he's connecting the thing.
>>
>>I very much doubt they bother with DTMF decoders. I mean, how often do
>>you get a wrong number? I've had about 4 in my life. They'll just
>>connect the ringer (or vibrate function) to the detonator (with
>>whatever minimal circuitry in between is required - I've never used a
>>detonator!) and then only turn the phone on at the last minute.
>>
>>It's not dumb to design a remote detonation system that requires the
>>absolute minimum of specialist knowledge and equipment to construct.
>>
>>
>>Tim
>
> New anti-terrorist weapon => telemarketers. They call everybody. Should wipe
> out the bomb makers in about a week.
>
> Dave Head

Not if they're on the Do Not Call list ;)
--
Best Regards,
Mike

4367. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 19:14:44 UTC
From: Guy Macon <http>
Message-ID: <L4SdnQ_KkOWyaMTdRVn-vA@speakeasy.net>
Source record: 98142
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

N. Thornton <bigcat@meeow.co.uk> says...

>Another question concerns spillage of gas: if youre yacking away its
>much easier to spill fuel. I cant draw any conclusions but one has to
>at least look at these factors.

Considering how many people refuel their cars each year and the
statistics for refueling fires (150 over the last 10 years) I
draw the conclusion that this isn't a significant problem. At
roughly 50,000 traffic fatalities per year, you are in much more
danger driving to and from the gas station.

As far as talking on your cell phone while driving goes, there is this...

|"Simons and Chabris showed participants a film of two basketball
|teams, one wearing black shirts and the other wearing white.
|These displays were created such that all of the actors were
|partially transparent and thus could simultaneously occupy
|the same locations.
|
|The researchers instructed participants to count how many times
|a basketball passed between members of one team, ignoring the
|other team. Just as Neisser had found two decades earlier,
|many participants didn't notice a woman who walked through
|the scene carrying an open umbrella, even though the woman
|was present for several seconds.
|
|Although Neisser's original findings were striking, they
|stimulated little further research - perhaps in part because
|the results were difficult to incorporate into the mainstream
|science of the time, suggests Ron Rensink, PhD, a psychologist
|and computer scientist at the University of British Columbia.
|
|'Back then, there was still a strong belief that we built
|up a visual representation of all the objects around us and
|held it in a big buffer,' Rensink notes. 'Neisser's work
|flew in the face of that -- people didn't quite know what
|to do with it. There seemed to be a general reluctance to
|pursue it.'
|
|Two decades later, Simons and Chabris's replication has
|received a more welcome reception. The team has now extended
|the original findings by showing that inattentional blindness
|also occurs in more natural displays, in which all of the

|actors are fully visible and opaque. Across a range of
|conditions, more than 25 percent of observers missed a fully
|visible and opaque 'umbrella woman.'
|
|In a particularly dramatic demonstration of the inattentional
|blindness effect, half of the observers failed to notice a
|person wearing a gorilla suit who walked into the middle of
|the basketball game, stopped to face the camera, thumped
|its chest and walked off the screen -- spending a total of
|nine seconds on screen."

Source: http://home.att.net/~jeff.dean/blind.htm

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4368. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 20:00:08 UTC
From: Jim Yanik <jyanik@abuse.gov>
Message-ID: <Xns94B0989DB5169jyanikkuanet@204.117.192.21>
Source record: 98143
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Tim Auton <tim.auton@uton.[groupSexWithoutTheY]> wrote in
news:4ndi50loirkshdi00l8eh03qfrk1pjrli5@4ax.com:

> Jim Thompson <thegreatone@example.com> wrote:
>
>>I was struck by a thought when I heard the latest Palestinian
>>terrorist trick is to send a kid through the border with a back-pack
>>bomb triggered by a cell phone....
>>
>>The Israelis should get a telemarketer's speed dialer and constantly
>>dial away... boom... boom... boom...
>
> You would have to have every phone in the nation ring every couple of
> hours. They're not going to be stupid enough to have the phone both
> switched on and connected to the bomb until the last minute.
>
>
> Tim

Actually,they have to have it active before they enter 'enemy' territory,as
citizens there often notice some stranger fiddling with a package and then
leaving it behind;the common indicator a bomb has been placed.

--
Jim Yanik
jyanik-at-kua.net

4369. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 20:00:14 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <b1vj5019oq4of5qqdgphso6k3ik9t3siq1@4ax.com>
Source record: 98144
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 00:59:41 -0800, "CW" <clinton.magers@comcast.net>
wrote:

>> The countermeasure I think, is fairly simple. Every vulnerable public
>> place which may be targeted by terrorist bomb attacks, should install
>> cellphone signal blockers.
>
>Not in the US. Intentional interference is illegal. It likely is in most
>places.
>

Homeland security has done worse on civil liberty laws.

Compared to the cost and unfeliability of security personnel and
person-body checks surely a "cellphone safe" building, train or public
conveyance is acceptable. After all it wasn't that many years ago
(~10) when there were no cellphones. The what did emergency workers
do then? What happend when you are out of cellphone range? Have you
actually heard of anyone dying because the party called couldn't get
his/her cellphone page?

I would certainly feel a lot more comfortable if the building
advertises itself as a cellphone free location to a point where I
would prefer to shop there. A work around for emergency worker
phone access is for the emergency worker to tell a service provider
that he is at a particular cellphone free location. If he needs to be
contacted the service provider will phone that building(s) management
by landline who will then page the emergency worker. It will work
like a 911 line and is meant for emergencies only, not a mom looking
for a shopping mall crazy daughter. Outside these cellphone free
buildings any cellphone will work normally.

4370. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 20:25:01 UTC
From: "Dan Richardson"
Message-ID: <691k50tj9b9fl27ol72ndqfimf0denmir9@4ax.com>
Source record: 98148

On Thu, 18 Mar 2004 12:29:37 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Dan Richardson < wrote:
>> If you wish you can send me the *.ez file and I'll run it with
>> MultiNec using the EZNEC engine.
>
>Hi Danny,
>I'm at work and the file is at home, but it is just a 130 ft.
>dipole, 40 ft. high, used on 10.125 MHz over average ground.
>
>The wire in EZNEC looks like: 0, 0, 40 130, 0, 40 #14 131

Based on the above, the average azimuth gain @ 34ï¿½ EL is 1.822 dBi

Danny

4371. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 20:26:09 UTC
From: S <fn30@optonline.net>
Message-ID: <BBn6c.16584$E8.3701341@news4.srv.hcvlny.cv.net>
Source record: 98145
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

the show on discovery channel, mythbusters. debunked that myth,

"John Michael Williams" <jwill@AstraGate.net> wrote in message
news:4032bf27.0403171202.f93e639@posting.google.com...
> Claims that people have started fires by using
> their cell phone while refueling a car apparently
> are false: See
> http://www.snopes.com/autos/hazards/gasvapor.asp
> and other sites.
>
> However, the first radios transmitted
> sparks, so in principle it should be possible to
> transmit near a long wire separated by a small gap from
> ground or another wire and get a small spark. So, I
> decided to try an experiment.
>
> I don't use a cell phone, so I assumed a CB radio
> transceiver would be a reasonable substitute: The
> power output of a nominal 5 W CB also is consistent
> and nonadaptive, so a possible unknown (actual output
> power) is avoided. Cell phones are adaptive and
> not very consistent in power output, so power
> should be monitored during a cell phone experiment.
>
> 5 W is considerably more than the 0.2 to 2 W typically
> possible from a cell phone; the power should be the
> important factor, although maybe someone should repeat this
> experiment with a cell phone, which would operate at
> a much higher frequency.
>
> I used a Radio Shack TRC-231 handheld (stock #21-1675)
> with xmit power on high and set on Channel 40.
> The antenna was the one that came with it (about 25 cm
> long). I set the volume to max and the squelch at min
> to be able to detect anyone else trying to use the
> channel; this was just to be sure that my brief, silent
> transmissions would not interfere with anyone.
>
> I used the CB indoors, in a mostly metal-shielded
> room. Because CB wavelength is around 10 m, everything I
> did was in the near field; however, the inverse square law
> for power still holds, allowing that the CB antenna is more
> of a line than a point source under my conditions below.

>
>
> The first thing I noticed was that every time I keyed the
> transmit button, the CB would switch the
> light level of a nearby touch-dimmed lamp, and it
> made a Microalert microwave detector scream. I unplugged
> the lamp and turned off the Microalert.
>
> Then, I tried to light a 120VAC indicator neon lamp attached
> to two solid copper switchback wires totalling about 1 m
> long, so the lamp was in the middle effectively of a dipole
> antenna. I tested the lamp and found it would light with
> 10 microamps current. The CB had no effect, even if held
> parallel to, and almost touching, the wires. Thus, the near
> field of a 5 W CB radio can not supply about 90 V at even
> 10 uA, under these conditions.
>
> I then attached a 1.2 m monopole antenna to an oscilloscope.
> This antenna has a Schottky hot carrier diode and impedance
> matching resistors builtin. It's home made, but it's probably
> as good as any other wire about that long. I hooked
> the antenna coax to an oscilloscope: With the CB transmitting,
> and its antenna parallel and 1 m away from the monopole,
> the amplitude was about 100 mV p-p, at 27 MHz or so. I could
> not get more amplitude no matter how close I held the CB,
> or at what angle. Touching the bare monopole wire increased
> the amplitude by no more than 10%.
>
> So, first conclusion: To get even a 1 V spark would take a
> wire at least 9 m long, all somehow kept within 1 m of the
> transmitter. Thus, it appears it is not feasible to create a
> hazardous spark with a CB at a gas station.
>
> Just to be sure, I taped a 1 m wire to a table top in the dark
> and slowly brought it closer and closer to another wire
> plugged into a wall socket 3rd wire ground (yes, I verified
> that the socket was wired to ground first!). At each distance, I
> briefly keyed the CB. I could not see any spark, even after
> dark-adapting my eyes for 10 min and letting the wires touch.
> I might have dark-adapted longer, but I don't know whether
> I should have been able to see a 50 mV spark or not.
>
> So, I think sliding over on a car seat, and thus generating a
> possible static charge, would be more likely to ignite gasoline
> vapor than talking on a cell phone while refueling. However, it
> would be useful for someone to repeat this kind of test with an
> actual cell phone, as opposed to a CB radio. The wires should
> be shorter, for one thing . . ..
>
> I'm cross posting to an antenna group, looking for criticism.

>
> John
> jwill@AstraGate.net
> John Michael Williams

4372. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 20:35:26 UTC
From: Richard Henry <rphenry@home.com>
Message-ID: <gKn6c.16699$uh.14512@fed1read02>
Source record: 98146
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"KLM" <klmok88@yahoo.com> wrote in message
news:b1vj5019oq4of5qqdgphso6k3ik9t3siq1@4ax.com...
>
> Compared to the cost and unfeliability of security personnel and
> person-body checks surely a "cellphone safe" building, train or public
> conveyance is acceptable. After all it wasn't that many years ago
> (~10) when there were no cellphones. The what did emergency workers
> do then? What happend when you are out of cellphone range? Have you
> actually heard of anyone dying because the party called couldn't get
> his/her cellphone page?

I'm old enough to remember when doctors would register with security when
they went to a baseball game. There was always at least one announcement
per game - "Dr. 31, call your service."

4373. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 20:46:29 UTC
From: Dirk Bruere at Neopax <dirk@neopax.com>
Message-ID: <c3d1ra$266002$1@ID-120108.news.uni-berlin.de>
Source record: 98147
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Jan Panteltje" <panteltje@yahoo.com> wrote in message
news:d75ca6e4.0403180818.2541c52b@posting.google.com...
> "Terry Given" <the_domes@xtra.co.nz> wrote in message
news:<MJc6c.8716$rw6.174739@news.xtra.co.nz>...
>
> > a better technique would be for the israeli government to pull their
heads
> > in, and start acting like humans instead of nazis (deliberate
comparison - I
> > am continually astounded that this behaviour comes from a people who
> > survived the Holocaust - surely the darkest moment in human history).

Actually, the Tasmanian natives might consider their plight to be somewhat
worse.
Assuming that they still existed, of course.

--
Dirk

The Consensus:-
The political party for the new millennium
http://www.theconsensus.org

4374. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 21:00:55 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <UtKdnXVNibo6kMfdRVn-uA@comcast.com>
Source record: 98149
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

You can try to ratioanlize it as much as you want. The willfull electronic interference of a radio service is a crime. Did you read the part of my post about signal blocking? I thought not. Go back and try again. If a terorist is going to strike, he is going to strike. The Department of Homeland Paranoia is not going to be able to do anything about it.

"KLM" <klmok88@yahoo.com> wrote in message news:b1vj5019oq4of5qqdgphso6k3ik9t3siq1@4ax.com...
> On Thu, 18 Mar 2004 00:59:41 -0800, "CW" <clinton.magers@comcast.net>
> wrote:
>
> >> The countermeasure I think, is fairly simple. Every vulnerable public
> >> place which may be targeted by terrorist bomb attacks, should install
> >> cellphone signal blockers.
> >
> >Not in the US. Intentional interference is illegal. It likely is in most
> >places.
> >
>
> Homeland security has done worse on civil liberty laws.
>
> Compared to the cost and unfeliability of security personnel and
> person-body checks surely a "cellphone safe" building, train or public
> conveyance is acceptable. After all it wasn't that many years ago
> (~10) when there were no cellphones. The what did emergency workers
> do then? What happend when you are out of cellphone range? Have you
> actually heard of anyone dying because the party called couldn't get
> his/her cellphone page?
>
> I would certainly feel a lot more comfortable if the building
> advertises itself as a cellphone free location to a point where I
> would prefer to shop there. A work around for emergency worker
> phone access is for the emergency worker to tell a service provider
> that he is at a particular cellphone free location. If he needs to be
> contacted the service provider will phone that building(s) management
> by landline who will then page the emergency worker. It will work
> like a 911 line and is meant for emergencies only, not a mom looking
> for a shopping mall crazy daughter. Outside these cellphone free
> buildings any cellphone will work normally.

4375. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 21:22:42 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <eRbCCRJiMhWAFwYo@jmwa.demon.co.uk>
Source record: 98151
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that CW <clinton.magers@comcast.net>
wrote (in <UtKdnXVNibo6kMfdRVn-uA@comcast.com>) about 'Cellphones and
Bombs', on Thu, 18 Mar 2004:
>You can try to ratioanlize it as much as you want. The willfull
>electronic interference of a radio service is a crime. Did you read the
>part of my post about signal blocking? I thought not. Go back and try
>again. If a terorist is going to strike, he is going to strike. The
>Department of Homeland Paranoia is not going to be able to do anything
>about it.

I am ALMOST old enough to remember a similar idea held in UK and Europe
before WW2, that 'the bomber (aircraft) will always get through'. The
RAF pretty well disproved it.

There is a finite probability that an individual terrorist, acting
completely alone, might evade all the checks. But it's far more
difficult for members of a terrorist cell to evade detection.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4376. Re: small mobile antenna suggestion?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 21:25:46 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <uto6c.2290$tP4.187571@twister.southeast.rr.com>
Source record: 98150

Since you are willing to fold over an antenna why not use a full size
antenna that you can disconnect.

"Andreas P." <anpap@my-deja.com> wrote in message
news:c106891e.0403150642.73fa210a@posting.google.com...
> I'm looking for a small mobile antenna for the 2m & 70cm bands. If it
> could
> also cover the 6m band that would be great.I want it to have a PL259
> connector to be able to use it with my existing magnet mount. In
> addition, I would like it to be quite short (less than 30cm/12in) or
> be able to fold it somehow, so that I can park my car (SUV) in the
> basement.
>
> Can anyone suggest a specific model?
>
> thanks,
> Andreas

4377. Top Hats, was Three short simple questions about antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 21:38:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ob4k501gec78d59rou705d1jrhc1t461bc@4ax.com>
Source record: 98152

On Thu, 18 Mar 2004 09:04:40 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Richard Clark wrote:
>"How many pF capacitance in your top hat?"
>
>How many degrees in your vertical?
>What`s the ground system?
>What`s the periphery of your vertical?
>What`s the surge impedance of your vertical?
>What other loading are you using ?
>
>ON4UN works examples in the 2nd edition of "Low-Band DXing". His
>examples happen to have slightly more than 100 pF when there`s no
>loading coil. I`ve seen other top loading capacitance values of 100-500
>pF.
>
>ON4UN`s capacitance hat, as used with a 40-foot vertical pipe on 160
>meters which has a 166-microhenry loading coil at the top, has 43 pF.
>
>XL must equal Xc in the antenna circuit because the antenna must be
>resonant to maximize current and radiation.
>
>The 19th edition of the ARRL Antenna Book says on page 6-36:
>"For estimating the capacitance of a T antenna made of wires, an
>approximation is to use 6 pF per meter for vertical wires, and 5 pF per
>meter for horizontal wires." With parallel wires, the total capacitance
>must be discounted when the wires are close together.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

I didn't expect any actual, literal, quantitative response from Yuri,
nor from many others than yourself for that matter.

I would offer that this "capacitive" top hat is another one of those
matters taken on faith, and when that faith is disturbed, then heads
bury into the sand.

For one, accepting that a capacitor that encompasses significant
wavelength dimensions is a travesty of logic in its own right. Trying
to maintain that logic is humorous by the contortions of the faithful.

Some of your numbers above are very suspect on the simple computation
of capacitance if we allow that it is done for DC or low frequency

(like 60Hz) AC. Specifically:
>ON4UN works examples in the 2nd edition of "Low-Band DXing". His
>examples happen to have slightly more than 100 pF when there`s no
>loading coil. I`ve seen other top loading capacitance values of 100-500
>pF.
This must contain some rather elaborate, undisclosed presumptions that sorely tax real implementations. I've dwelt on this waiting for someone to hit the trip wire.

This all began with the innocent observation, obtained through nebulous sources:
>"The last description I saw of a quarter wave antenna was that of a
>parallel circuit. Isn`t that basically how a capacity hat shortens an
>antenna, by increasing the parallel capacitance?"

It is tempting to equate the large top hat structure to the plate of a capacitor. It serves such a metaphor so well by abstraction. That is, a lot of conductive surface (or at least by the suggestion of the skeleton of a disk) suspended above earth (presumably the other plate to complete this circuit).

The first and obvious problem is that it is too big to qualify as just a capacitor. The neophyte typically ignores the caution of not treating large structures as lumped elements (or vise-versa).

If we were to dismiss this warning entirely, that is proceed as the neophyte, and employ the DC or low AC analysis of a significantly sized hat, what would its capacitance be? However, this is getting the cart before the horse. To this point scribblers to this forum really don't even consider how much capacitance (still talking this DC or low AC stuff) a monopole offers. As I have a prospective design for 40M in mind, I will start it off with a 2.54cM tube, 11.1M tall. I will then decimate its length to add top hats to return the structure to its former resonant frequency (7.1MHz). Right out of the gate at its full height, the whip shows all of 4.99pF to earth around it. I will crop it 25% to 8.4M (4.80pF); and 45% to 6.15M (4.58pF); and 67% to 3.66M (4.21pF).

Do we use a solid disk, or a skeleton? The practical problem is no one builds a solid disk for HF. To obtain that several hundred picoFarads elevated, say, 10M above earth, would lead to a nightmare sized disk. Hence surface area plummets and so does this capacitance. However, for the sake of argument, we will maintain the diameter, but approximate it through a skeleton of 16 spokes of #8 wire (even here, far more aggressive than many neophyte's efforts).

Lop off 25% of that radiator and resonance shifts to another, higher frequency. We can add a top hat to accomplish this, and for that missing 25% we will find a top hat of 12.5 cM diameter will do this job. Now how much capacitance does that represent? In this case 0.011pF. How much is missing? In this case 0.19pf about 20 times more than what the hat offers.

Lop off 45% of that radiator and resonance shifts to an even higher frequency. We can add a larger top hat to return to that original frequency, and for that missing 45% we will find a top hat of 2 M diameter will do this job. Now how much capacitance does that represent? In this case 0.24pF. How much is missing? In this case 0.41pf (about 2 times more than what the hat offers).

Lop off 67% of that radiator and resonance shifts to an even higher frequency. We can add a very much larger top hat to return to that original frequency, and for that missing 67% we will find a top hat of 7 M diameter will do this job. Now how much capacitance does that represent? In this case1.37pF. How much is missing? In this case 0.78pf (about 2 times less than what the hat offers).

Given the quid pro quo, the numbers reveal a very strong nonlinearity for a resonance equation that is solidly ratio metric. That is to say: halve the inductance, then double the capacitance. This can be observed to occur NOWHERE except by accident at one point (I will leave this to the student to discover that propitious combination).

This logic of "capacitance" grows even more absurd if one simply takes Reggie's former blighted thread about the inductance of a dipole and employs the low frequency capacitance and inductance to discover that by those values his 40M dipole resonates at 95MHz (unless it is hanging 4 inches off the ground perhaps).

Giving such values to large structures is a fantasy.

73's
Richard Clark, KB7QHC

4378. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 21:54:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405a1abb$1_2@127.0.0.1>
Source record: 98153

Dan Richardson < wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>The wire in EZNEC looks like: 0, 0, 40 130, 0, 40 #14 131
>
> Based on the above, the average azimuth gain @ 34i¿½ EL is 1.822 dBi

Thanks, that beats the average azimuthal gain for a
ground-mounted 1/4WL monopole.
--
73, Cecil, W5DXP

4379. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 22:09:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <887k505gk7ulvcjvdt3of8nbshbmqodsb1@4ax.com>
Source record: 98154

On 18 Mar 2004 08:29:07 -0800, nm5k@wt.net (Mark Keith) wrote:

> Art, if two years later, you don't like the model, do it yourself,
>and post the results for inspection.

Hi Mark,

What a novel concept! ...but then that would be the end of it and we
could roll the rock back over the sepulcher.

73's
Richard Clark, KB7QHC

4380. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 22:12:10 UTC
From: Zak <spam@jutezak.invalid>
Message-ID: <%8p6c.5424$EV2.35407@amstwist00>
Source record: 98155
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Terry Given wrote:

> The current situation exists, time doesnt flow
> backwards, and if a real solution is not found, the terrorism will not only
> continue, but will coninue to get worse. Neither side seems interested in
> moving forward though, they are caught up in an ever-escalating round of
> murderous tit-for-tat.

OT, but I have to say I fully agree. This will also take away a lot of
the breeding grounds of war-mongering terrorist organizations that seek
islamic/arabic support.

If only...

Thomas

4381. Re: Capacitance of a Top Hat.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 22:16:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <um7k50pn5veldklm3ipa7uumd4suigmejo@4ax.com>
Source record: 98156

On Thu, 18 Mar 2004 16:46:27 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>Even if one knows the capacitance of a top-hat it's of no use unless one
>also knows the value of the inductance associated with it.
...
>What is needed are the means of *predicting* top-hat capacitance even before
>construction materials are obtained. Optimum construction, or suitable in
>some sense, could then be chosen.
>
This Blarney is a day long of St. Patrick's day.

Been drinking green beer Reggie? :-0

73's
Richard Clark, KB7QHC

4382. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:00:26 UTC
From: Dirk Bruere at Neopax <dirk@neopax.com>
Message-ID: <c3d9mh$2769fm$1@ID-120108.news.uni-berlin.de>
Source record: 98157
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"John Woodgate" <jmw@jmwa.demon.contraspam.yuk> wrote in message
news:eRbCCRJiMhWAFwYo@jmwa.demon.co.uk...
> I read in sci.electronics.design that CW <clinton.magers@comcast.net>
> wrote (in <UtKdnXVNibo6kMfdRVn-uA@comcast.com>) about 'Cellphones and
> Bombs', on Thu, 18 Mar 2004:
> >You can try to ratioanlize it as much as you want. The willfull
> >electronic interference of a radio service is a crime. Did you read the
> >part of my post about signal blocking? I thought not. Go back and try
> >again. If a terorist is going to strike, he is going to strike. The
> >Department of Homeland Paranoia is not going to be able to do anything
> >about it.
>
> I am ALMOST old enough to remember a similar idea held in UK and Europe
> before WW2, that 'the bomber (aircraft) will always get through'. The
> RAF pretty well disproved it.

They did not disprove it.
All they disproved is the notion that a war can be won by air power alone.

--
Dirk

The Consensus:-
The political party for the new millennium
http://www.theconsensus.org

4383. Through the wall antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:01:39 UTC
From: Jim Volstad <jvolstad-nospam@yahoo.com>
Message-ID: <nTp6c.7587$Mm2.5815@fe1.texas.rr.com>
Source record: 98158

I am planning a vertical antenna in my back yard and was wondering if there is a product that will allow me to have a SO-239 to SO-239 connection through the house wall?

Jim Volstad
WA0TRY

4384. Re: Through the wall antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:16:02 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <g3bk50l8hq6ovs9hcu21cv79k2vkrp958e@4ax.com>
Source record: 98161

On Thu, 18 Mar 2004 17:18:56 -0600, "Harold Burton"
<hwburton@cableone.net> wrote:

>
>"Jim Volstad" <jvolstad-nospam@yahoo.com> wrote in message
>news:nTp6c.7587$Mm2.5815@fe1.texas.rr.com...
>> I am planning a vertical antenna in my back yard and was wondering if
>there
>> is a product that will allow me to have a SO-239 to SO-239 connection
>> through the house wall?
>>
>> Jim Volstad
>> WA0TRY
>>
>>
>I saw an ad on the net recently that included extra long barrel connectors
>with
>lock nuts. I think they came in several lengths with the longest being 6 or
>8
>inches long. The std size are about 1 1/2 inches and are used to join
>lengths
>of coax. If they can be found long enough that might do what you're wanting
>to do.
>
>Harold
>KD5SAK
>

Looking at my book from the Wireman -- he has the double-female barrel
connectors, with locking nuts, in various lengths up to 12 inches. I'd
imagine others have them, too.

Bob
k5qwg

4385. Re: Through the wall antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:18:56 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <105kbe1teaggb03@corp.supernews.com>
Source record: 98160

"Jim Volstad" <jvolstad-nospam@yahoo.com> wrote in message
news:nTp6c.7587$Mm2.5815@fe1.texas.rr.com...
> I am planning a vertical antenna in my back yard and was wondering if
there
> is a product that will allow me to have a SO-239 to SO-239 connection
> through the house wall?
>
> Jim Volstad
> WA0TRY
>
>
I saw an ad on the net recently that included extra long barrel connectors
with
lock nuts. I think they came in several lengths with the longest being 6 or
8
inches long. The std size are about 1 1/2 inches and are used to join
lengths
of coax. If they can be found long enough that might do what you're wanting
to do.

Harold
KD5SAK

4386. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:23:47 UTC
From: Lloyd Mitchell <lloydm75@hotmail.com>
Message-ID: <5jq6c.21878$zP2.13465@bignews5.bellsouth.net>
Source record: 98163

without a doubt, i can highly recommend screwdriver type made by talheel antennas in NC. those antennas are great! I like them better than the high serrias and even home made ones that are cheaper.

go to http://www.tarheelantennas.com/

"Jeremy Salch" <salchNOSPAM@tblx.net> wrote in message news:c3akn4$22uuq7$1@ID-225834.news.uni-berlin.de...
> Butch wrote:
>
> > You need a Predator. Do a search for "predator antenna" Made for RVs
> > and SUVs!
> >
> > Butch KF5DE
> >
> > Jeremy Salch wrote:
> >> Anyone ever setup a screwdriver on a RV and have it work very well ?
> >>
> >> I have one installed but it preforms very poorly compared to
> >> how well it worked on my car.
> >>
> >> I think it is not working very well because the entire antenna is next to
> >> the side of the motorhome.. and on my car.. only maybe the bottom 2 feet
> >> of it were beside another surface.
> >>
> >> I guess another question would be.. does anyone know if it would
> possibly
> >> work better if it could be mounted at an angle instead of directly
> >> vertical?
> >>
> >>
> i'll check it out
>
> --
> Registered Linux User #346565
>

4387. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:35:11 UTC
From: n1ir@aol.com
Message-ID: <20040318183511.28509.00001489@mb-m29.aol.com>
Source record: 98162

Yes, it is the Armstrong Tower. This was the main and test site for the long defunct Yankee Network of FM stations.

It is discussed in some detail in the book: " Empire of the Air".

Surely some Radio Club of America folks on this NG can drop us a few choice trivia nuggets on the Armstrong tower:-)

Now, today's (related) quiz: where was (and what is located there now) the "Wardenclyffe ' tower of Tesla fame:-)?
Hint: it's about 80 miles from the Alpine site.

73,
Chip N1IR

4388. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:39:15 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <f4ck5090kfkchrdf0rrjj7o4nl9v1v9oqa@4ax.com>
Source record: 98164
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 13:00:55 -0800, "CW" <clinton.magers@comcast.net>
wrote:

>You can try to ratioanlize it as much as you want. The willfull electronic
>interference of a radio service is a crime. Did you read the part of my post
>about signal blocking? I thought not. Go back and try again. If a terorist
>is going to strike, he is going to strike. The Department of Homeland
>Paranoia is not going to be able to do anything about it.
>

And cellphone signal blocking is localized, short range, same as WiFi.
Put up a sign to that effect in your business premise. Those who feel
they must have their cellphone access 24/7 can always step outside
the door or avoid the place. That business will survive because there
are a miniscule number of 24/7 cellphone freaks.

Anyway the use of cellphones while driving is banned in many states in
the US and worldwide. What is so different in banning their use in
selected public places. The only difference is that signal blocking
is applied universally in that defined building area, and without
having intrusive checks being made on anyone to effect compliance.

4389. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:52:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3dcokbfn1@titan.btinternet.com>
Source record: 98165
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I AM old enough to remember the pre-war and the phoney-war impressions of the population of the cities of Birmingham and Coventry about the capabilities of the Luftwaffer.

It was "They'll never get this far."

At the same time the citizens of Cologne, Hamburg, Berlin and Dresden were saying much the same thing.

4390. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:54:23 UTC
From: Dirk Bruere at Neopax <dirk@neopax.com>
Message-ID: <c3dcrl$26ahv8$1@ID-120108.news.uni-berlin.de>
Source record: 98166
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

```
"Terry Given" <the_domes@xtra.co.nz> wrote in message
news:L4q6c.9357$rw6.186585@news.xtra.co.nz...
> "Dirk Bruere at Neopax" <dirk@neopax.com> wrote in message
> news:c3d1ra$266002$1@ID-120108.news.uni-berlin.de...
> >
> >
> > "Jan Panteltje" <panteltje@yahoo.com> wrote in message
> > news:d75ca6e4.0403180818.2541c52b@posting.google.com...
> > > "Terry Given" <the_domes@xtra.co.nz> wrote in message
> > news:<MJc6c.8716$rw6.174739@news.xtra.co.nz>...
> > >
> > > > a better technique would be for the israeli government to pull their
> > heads
> > > > in, and start acting like humans instead of nazis (deliberate
> > comparison - I
> > > > am continually astounded that this behaviour comes from a people who
> > > > survived the Holocaust - surely the darkest moment in human
history).
> >
> > Actually, the Tasmanian natives might consider their plight to be
somewhat
> > worse.
> > Assuming that they still existed, of course.
> >
>
> dont they have a nice monument though?

Probably not - they have no political pressure groups.

--
Dirk

The Consensus:-
The political party for the new millennium
http://www.theconsensus.org
```

4391. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:57:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3dd0e$84$1@sparta.btinternet.com>
Source record: 98167
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Zak" <spam@jutezak.invalid> wrote in message
news:%8p6c.5424$EV2.35407@amstwist00...
> Terry Given wrote:
>
> > The current situation exists, time doesnt flow
> > backwards, and if a real solution is not found, the terrorism will not
only
> > continue, but will coninue to get worse. Neither side seems interested
in
> > moving forward though, they are caught up in an ever-escalating round of
> > murderous tit-for-tat.
>
> OT, but I have to say I fully agree. This will also take away a lot of
> the breeding grounds of war-mongering terrorist organizations that seek
> islamic/arabic support.
>
==========

But we musn't forget who is to control the oil wells and the pipelines.

4392. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-18 23:58:31 UTC
From: Mark Fergerson <nunya@biz.ness>
Message-ID: <QIq6c.19648$Nj.13239@fed1read01>
Source record: 98168
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jan Panteltje wrote:

<snip>

>>unfortunately its not likely to happen. Little things like the clearly
>>observable FACT that decades of repressive behaviour towards the
>>palestinians has NOT resolved the problem, but made it WORSE, seem to have
>>escaped the notice of successive israeli governments. so much for "an eye
>>for an eye" being of any practical use.

Um, Israel is backed up against the Mediterranean. What
impenetrable barrier are the "Palestinians" backed up against?

Mark L. Fergerson

4393. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 00:06:27 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <7Qq6c.28227$%06.1685@newsread2.news.pas.earthlink.net>
Source record: 98020

Comments below...

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:405a1abb$1_2@127.0.0.1...
> Dan Richardson < wrote:
>
> > <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >>The wire in EZNEC looks like: 0, 0, 40 130, 0, 40 #14 131
> >
> > Based on the above, the average azimuth gain @ 34° EL is 1.822 dBi
>
> Thanks, that beats the average azimuthal gain for a
> ground-mounted 1/4WL monopole.

Using your numbers for the (somewhat radial-challenged) monopole,
the monopole peak is 1.822 dB less, but at a more favorable (for DX)
26 degrees elevation angle.

I would say that's not a bad showing, considering the much smaller
footprint and greatly reduced support requirements. But beauty is
in the eye of the beholder; and I wouldn't dream of trying to steal
your affections from the big dipole.

73, Ed

> --
> 73, Cecil, W5DXP
>
>

4394. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 00:06:28 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <8Qq6c.28228$%06.19741@newsread2.news.pas.earthlink.net>
Source record: 98019

Hi Danny -

Thank you very much for your contribution here!
Any chance you could run another 360 azimuth cut
at 26 degrees elevation?

TNX es 73, Ed

"Dan Richardson @mendolink.com>" <<ChangeThisToCallSign> wrote in message
news:691k50tj9b9fl27ol72ndqfimf0denmir9@4ax.com...
> On Thu, 18 Mar 2004 12:29:37 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
> >Dan Richardson < wrote:
> >> If you wish you can send me the *.ez file and I'll run it with
> >> MultiNec using the EZNEC engine.
> >
> >Hi Danny,
> >I'm at work and the file is at home, but it is just a 130 ft.
> >dipole, 40 ft. high, used on 10.125 MHz over average ground.
> >
> >The wire in EZNEC looks like: 0, 0, 40 130, 0, 40 #14 131
>
> Based on the above, the average azimuth gain @ 34° EL is 1.822 dBi
>
> Danny
>

4395. Re: Capacitance of a Top Hat.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 00:39:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3dffm$7oo$1@hercules.btinternet.com>
Source record: 98021

> Been drinking green beer Reggie? :-0
>
Wrong again, Rich. Tonight I'm on South African, Olifont River Valley,
"Goiya".

4396. Re: Through the wall antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 00:45:55 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <65WdnYIESIBf38fd4p2dnA@comcast.com>
Source record: 98022

"Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message
news:g3bk50l8hq6ovs9hcu21cv79k2vkrp958e@4ax.com...
> On Thu, 18 Mar 2004 17:18:56 -0600, "Harold Burton"
> <hwburton@cableone.net> wrote:
>
> >
> >"Jim Volstad" <jvolstad-nospam@yahoo.com> wrote in message
> >news:nTp6c.7587$Mm2.5815@fe1.texas.rr.com...
> >> I am planning a vertical antenna in my back yard and was wondering if
> >there
> >> is a product that will allow me to have a SO-239 to SO-239 connection
> >> through the house wall?
> >>
> >> Jim Volstad
> >> WA0TRY
> >>
> >>
> >I saw an ad on the net recently that included extra long barrel
connectors
> >with
> >lock nuts. I think they came in several lengths with the longest being 6
or
> >8
> >inches long. The std size are about 1 1/2 inches and are used to join
> >lengths
> >of coax. If they can be found long enough that might do what you're
wanting
> >to do.
> >
> >Harold
> >KD5SAK
> >
>
> Looking at my book from the Wireman -- he has the double-female barrel
> connectors, with locking nuts, in various lengths up to 12 inches. I'd
> imagine others have them, too.
>
> Bob
> k5qwg
>
>
A few years ago I bought 4 of these things at cablexperts to go through a
garage wall. Don't know if they have any longer than 6".

Tam/WB2TT

4397. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 00:47:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405a4350_3@corp.newsgroups.com>
Source record: 98023

Old Ed wrote:
> I would say that's not a bad showing, considering the much smaller
> footprint and greatly reduced support requirements.

Huh???? My 40m monopole was the most difficult antenna I have
ever attempted to erect. My dipole goes between two trees and
gives me 9 dBi gain toward AZ on 30m. It's no contest.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4398. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 00:48:23 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405a439f$1_3@corp.newsgroups.com>
Source record: 98024
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Terry Given wrote:
> dont they have a nice monument though?

Terry, what the heck are you doing awake at 2am tomorrow?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4399. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 00:53:28 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <vOGdnT3M-5W12cfdRVn-gQ@comcast.com>
Source record: 98025
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Do you know what the word ILLEGAL means? It is very obvious that you are ignorant of the technical details and I am not going to be your electronics teacher. It is illegal for a reason.

"KLM" <klmok88@yahoo.com> wrote in message news:f4ck5090kfkchrdf0rrjj7o4nl9v1v9oqa@4ax.com...
> On Thu, 18 Mar 2004 13:00:55 -0800, "CW" <clinton.magers@comcast.net>
> wrote:
>
> >You can try to ratioanlize it as much as you want. The willfull electronic
> >interference of a radio service is a crime. Did you read the part of my post
> >about signal blocking? I thought not. Go back and try again. If a terorist
> >is going to strike, he is going to strike. The Department of Homeland
> >Paranoia is not going to be able to do anything about it.
> >
>
>
> And cellphone signal blocking is localized, short range, same as WiFi.
> Put up a sign to that effect in your business premise. Those who feel
> they must have their cellphone access 24/7 can always step outside
> the door or avoid the place. That business will survive because there
> are a miniscule number of 24/7 cellphone freaks.
>
> Anyway the use of cellphones while driving is banned in many states in
> the US and worldwide. What is so different in banning their use in
> selected public places. The only difference is that signal blocking
> is applied universally in that defined building area, and without
> having intrusive checks being made on anyone to effect compliance.

4400. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 00:57:41 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <kLidnSD2BPm52MfdRVn-sA@comcast.com>
Source record: 98026
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Damn sight bigger target and there are not a lot of hiding places in the sky. In any case, you are talking about a miniscule little country. Try to keep an eye on this one.

> I am ALMOST old enough to remember a similar idea held in UK and Europe
> before WW2, that 'the bomber (aircraft) will always get through'. The
> RAF pretty well disproved it.
>
> There is a finite probability that an individual terrorist, acting
> completely alone, might evade all the checks. But it's far more
> difficult for members of a terrorist cell to evade detection.
> --
> Regards, John Woodgate, OOO - Own Opinions Only.
> The good news is that nothing is compulsory.
> The bad news is that everything is prohibited.
> http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4401. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 01:08:01 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <mcfk505dkgl77pi8ev4t4mdkor9fvjtjof@4ax.com>
Source record: 98027
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

>
>And cellphone signal blocking is localized, short range, same as WiFi.
>Put up a sign to that effect in your business premise.
>

An idea just occurred to me.

You notice those electronic anti-shoplifting interrogators at the
checkout counters?

Why not include a circuit in every cellphone that will cause the
answer bell to ring when anyone carrying a cellphone crosses one of
these interrogators. Maybe have the circuitry activate a different
ring tone or ring pattern from the normal call ring. Its extremely
short range and won't interefere with normal cellphone use.

It will set off a cellphone bomb or at least ID a suspicious cellphone
owner who can be asked to show the phone (any cellphone modifications
will be noticed immediately) or can be called aside for further
inspection. This will enable security people in places like train
stations, bus stations and airports to quickly screen crowds.

The same interrogating circuitry could be installed in metal detector
security gates.

Its rare to be able to go anywhere without encountering one of these
interrogators these days. A bomb carrying cellphone triggered
terrorist will have a hard time moving around without attracting
attention somewhere.

On a different discussion point, picture the recent Spanish train
bombings (10 set off.) Had the train installed cellphone signal
blocking equipment most of those bombs would probably not have been
set off. Calls on emergency workers commuting by train could easily
have been relayed by the train's onboard PA system. Calls out can be
made from on-board public pay phones. Or can the signal blocking be
effective only for incoming calls and leave out going calls
unrestricted? Airlines blocks incoming calls. Outgoing calls can be
made from anywhere during flight through the aircraft's phone system.

4402. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 01:18:50 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <62ik50dct1tfjjsraq43maub22d74fauce@4ax.com>
Source record: 98028
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 16:53:28 -0800, "CW" <clinton.magers@comcast.net>
wrote:

>Do you know what the word ILLEGAL means? It is very obvious that you are
>ignorant of the technical details and I am not going to be your electronics
>teacher. It is illegal for a reason.
>

Terrorists are using cellphones to kill and maim hundreds of people
and you are maintaining that unrestrcted CP use is a god given
inviolable right.

I'd rather hear your "reason" than to argue with you about the
technical details. If the rationale for public safety is there, the
laws can be changed. Maybe you should tell to us what this cast- in-
concrete law is and that will save us a lot of guesswork and
rebuttals.

4403. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 01:32:03 UTC
From: Spehro Pefhany <speffSNIP@interlogDOTyou.knowwhat>
Message-ID: <cojk50puqeltf2bjfj83kor0jvetrc0vft@4ax.com>
Source record: 98029
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Fri, 19 Mar 2004 01:08:01 GMT, the renowned KLM <klmok88@yahoo.com>
wrote:

>>On a different discussion point, picture the recent Spanish train
>bombings (10 set off.) Had the train installed cellphone signal
>blocking equipment most of those bombs would probably not have been
>set off.

From the fact that few of them went off in the station, where they
would have been far more effective, one may conclude that they were
triggered by simple timers.

Best regards,
Spehro Pefhany
--
"it's the network..." "The Journey is the reward"
speff@interlog.com Info for manufacturers: http://www.trexon.com
Embedded software/hardware/analog Info for designers: http://www.speff.com

4404. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 01:57:15 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <NaydnXEQq4SHzsfdRVn-vw@comcast.com>
Source record: 98030
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I told you before, I'm not going to be your electronics teacher and in any case, I have my doubts about your ability to comprehend.
Has nothing to do with "right to have a cell phone". I don't have one, never have and wouldn't care if they disappeared from the planet but in no way will I ever approve of electronic jamming of them unless under a carefully controlled situation for a specific reason. Paranoia is not a good reason.

"KLM" <klmok88@yahoo.com> wrote in message
news:62ik50dct1tfjjsraq43maub22d74fauce@4ax.com...
> On Thu, 18 Mar 2004 16:53:28 -0800, "CW" <clinton.magers@comcast.net>
> wrote:
>

4405. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 01:57:48 UTC
From: Captain794@yahoo.com
Message-ID: <7199d521.0403181757.7ab27279@posting.google.com>
Source record: 98032
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Dave Shrader <david.shrader@comcast.net> wrote in message
news:<Xu36c.33004$po.292953@attbi_s52>...
> John Michael Williams wrote:
>
> SNIP
> >
> > However, the first radios transmitted
> > sparks, so in principle it should be possible to
> > transmit near a long wire separated by a small gap from
> > ground or another wire and get a small spark. So, I
> > decided to try an experiment.
> >
> SNIP
>
> There is one other potential source for a spark that you did not
> investigate.
>
> A make/break contact in a switch causes sparks when opened. The US
> Military specifies special shielded switches for their explosive, gas
> vapor, etc., environments.
>
> So, it is possible that pressing the PTT or the ON/OFF switch causes the
> necessary spark. Remember the Apollo ground fire. A switch/spark caused
> an oxygen explosion.

Actually, anyone who has worked in the offshore oil industry will be
familiar with the concept of intrinsic safety. This requires that no
electronic instrument shall be able to ignite a mixture of air and
inflamable vapour or gas. All handheld radios used on rigs are
intrinsically safe, making them far more expensive than the standard
variety.

I very much doubt that cell phones are buit to intrinsicly safe
standards, and under those circumstances I would certainly not feel
safe near someone yacking while filling.

So, an interesting querstion is; does your phone conform to UL
requirements for intrinsic safety? And if not, why are you using it
in an area where an explosive gas air mixture is possible?

Cap

4406. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 01:59:02 UTC
From: "Tim Auton"
Message-ID: <psjk50dasplek6usms5nfv3e24qidvimbm@4ax.com>
Source record: 98031
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jim Yanik <jyanik@abuse.gov> wrote:
>Tim Auton <tim.auton@uton.[groupSexWithoutTheY]> wrote in
>news:4ndi50loirkshdi00l8eh03qfrk1pjrli5@4ax.com:
>> Jim Thompson <thegreatone@example.com> wrote:
>>
>>>I was struck by a thought when I heard the latest Palestinian
>>>terrorist trick is to send a kid through the border with a back-pack
>>>bomb triggered by a cell phone....
>>>
>>>The Israelis should get a telemarketer's speed dialer and constantly
>>>dial away... boom... boom... boom...
>>
>> You would have to have every phone in the nation ring every couple of
>> hours. They're not going to be stupid enough to have the phone both
>> switched on and connected to the bomb until the last minute.
>
>Actually,they have to have it active before they enter 'enemy' territory,as
>citizens there often notice some stranger fiddling with a package and then
>leaving it behind;the common indicator a bomb has been placed.

So you're defining where the last minute is. Israel is tiny and most
of it is within an hours travel of "hostile" territory. My point about
the rate at which you would have to call mobiles stands.

You would have to disable every RF device in the nation to stop that
means of detonation. Removing RF communication from the population
means the terrorists have won. The only way to beat them is to carry
on doing exactly what you are doing now - changing your behaviour is a
victory for the terrorists. I'm British, I've lived under the threat
of terrorism (the comparatively mild IRA) almost my entire life (I'm
28). You just accept the risk - which is very, very small compared to
car accidents etc. etc. etc.

Changing laws and changing behaviour is *exactly* what they want. Fuck
them. The only thing you can do is report suspicious packages at train
stations etc. Other than that, just ignore the bastards and get on
with your life - if you do anything else they have won.

If you're scared then they have won. That's why it's called TERRORism.
Look at the odds - if you're not scared of crossing the road you
shouldn't be scared of terrorism.

Tim
--
Love is a travelator.

4407. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 02:05:45 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <lO6dnc3pdMGFyMfdRVn-hQ@comcast.com>
Source record: 98033
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Well said.

"Tim Auton" <tim.auton@uton.[groupSexWithoutTheY]> wrote in message > So you're defining where the last minute is. Israel is tiny and most
> of it is within an hours travel of "hostile" territory. My point about
> the rate at which you would have to call mobiles stands.
>
> You would have to disable every RF device in the nation to stop that
> means of detonation. Removing RF communication from the population
> means the terrorists have won. The only way to beat them is to carry
> on doing exactly what you are doing now - changing your behaviour is a
> victory for the terrorists. I'm British, I've lived under the threat
> of terrorism (the comparatively mild IRA) almost my entire life (I'm
> 28). You just accept the risk - which is very, very small compared to
> car accidents etc. etc. etc.
>
> Changing laws and changing behaviour is *exactly* what they want. Fuck
> them. The only thing you can do is report suspicious packages at train
> stations etc. Other than that, just ignore the bastards and get on
> with your life - if you do anything else they have won.
>
> If you're scared then they have won. That's why it's called TERRORism.
> Look at the odds - if you're not scared of crossing the road you
> shouldn't be scared of terrorism.
>
>
> Tim
> --
> Love is a travelator.

4408. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 02:12:08 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <kpidnYJFdacKy8fdRVn-hg@comcast.com>
Source record: 98034
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

The ideas are getting better but are you going to be the one to explain to people's families that it was for the public good that you were transmitting a signal designed to set off a bomb in a crowded place? It should get the terrorist and the couple of dozen people behind him waiting to get through the check point.

"KLM" <klmok88@yahoo.com> wrote in message news:mcfk505dkgl77pi8ev4t4mdkor9fvjtjof@4ax.com...
>
>
> An idea just occurred to me.
>
> You notice those electronic anti-shoplifting interrogators at the
> checkout counters?
>
> Why not include a circuit in every cellphone that will cause the
> answer bell to ring when anyone carrying a cellphone crosses one of
> these interrogators. Maybe have the circuitry activate a different
> ring tone or ring pattern from the normal call ring. Its extremely
> short range and won't interefere with normal cellphone use.
>
> It will set off a cellphone bomb or at least ID a suspicious cellphone
> owner who can be asked to show the phone (any cellphone modifications
> will be noticed immediately) or can be called aside for further
> inspection. This will enable security people in places like train
> stations, bus stations and airports to quickly screen crowds.
>
> The same interrogating circuitry could be installed in metal detector
> security gates.
>
> Its rare to be able to go anywhere without encountering one of these
> interrogators these days. A bomb carrying cellphone triggered
> terrorist will have a hard time moving around without attracting
> attention somewhere.
>
> ---
>
> On a different discussion point, picture the recent Spanish train
> bombings (10 set off.) Had the train installed cellphone signal
> blocking equipment most of those bombs would probably not have been
> set off. Calls on emergency workers commuting by train could easily
> have been relayed by the train's onboard PA system. Calls out can be
> made from on-board public pay phones. Or can the signal blocking be

> effective only for incoming calls and leave out going calls
> unrestricted? Airlines blocks incoming calls. Outgoing calls can be
> made from anywhere during flight through the aircraft's phone system.

4409. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 02:13:21 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <dmlk50p6ra0sel59ak53ud9s5tpooh26ak@4ax.com>
Source record: 98035

On Wed, 17 Mar 2004 19:26:10 GMT, g3pho@nospamblueyonder.co.uk wrote:

>On Tue, 16 Mar 2004 10:01:22 -0600, Bob Miller
><bxmiller@texas.netNOSPAM> wrote:
>
>>GE silicon Kitchen & Bath sealant from the hardware store.
>
>You have to watch some of this stuff as certain brands contain
>acetic(?) acid which corrodes copper.

It won't hurt a thing as long as it's not contained within a small
area. When contained it'll destroy copper and aluminum. Also it is
water proof, but not moisture proof. (see my earlier post)

>
>I use a hot glue gun followed by copious layers of self amalgamatind
>tape, followed by a couple of layers of standard PVC insulating tape
>to prevent UV degradation of the self-amalalg.

Going to that much work I'd just go with flooded heat shrink tube.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
>Peter, G3PHO

4410. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 02:18:52 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <22mk50h5bvolfq35q9p7kmrmeuirkllldq@4ax.com>
Source record: 98036
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Wed, 17 Mar 2004 21:38:29 -0500, Ben Bradley
<ben_nospam_bradley@mindspring.example.com> wrote:

>In rec.radio.amateur.antenna,
>
>(I suppose this is on RRAA because cell phones have antennas)
>
>sci.electronics.design,sci.electronics.basics, Jim Thompson
><thegreatone@example.com> wrote:
>
>>I was struck by a thought when I heard the latest Palestinian
>>terrorist trick is to send a kid through the border with a back-pack
>>bomb triggered by a cell phone....
>
> Call phones have become the trigger of choice for terrorist bombs.
>
>>The Israelis should get a telemarketer's speed dialer and constantly
>>dial away... boom... boom... boom...
>
> This might already be illegal there (not that that would stop a
>government). I've heard that various parts of Europe have much
>stronger privacy laws than the US, so there's little or no
>telemarketing.
>
>>ROTFLMAO!
>
> Of course, in the USA, one could put the cell number on the
>national DO-NOT-CALL list, then only an "illegal" telemarketer would
>trigger the bomb.
Or Church, politician, or charity, or any other 501C3 orginization, or
....

>
> Bombers might figure ways around this (especially if they search
>Usenet), such as a cellphone answering circuit and a "dee tee em eff"
>decoding circuit. I wouldn't want to spell it out for them...

I'd think that would be a given. Oops...wrong number.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>
>> ...Jim Thompson

>
>-----
>http://mindspring.com/~benbradley

4411. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 02:35:44 UTC
From: "Dan Richardson"
Message-ID: <romk50t276aahu6s0mj1016tj8nfhs9jf8@4ax.com>
Source record: 98041

On Fri, 19 Mar 2004 00:06:28 GMT, "Old Ed"
<eseniorsR-E-M-O-V-E@earthlink.net> wrote:

>Hi Danny -
>
>Thank you very much for your contribution here!
>Any chance you could run another 360 azimuth cut
>at 26 degrees elevation?
>
>TNX es 73, Ed

Sure Ed, however as you are comparing the dipole to a monopole I also
modeled that. The monopole was resonated at 10.125 MHz. Using 16
ï¿½-wave in length buried 5" deep. The maximum elevation takeoff angle
reported by EZNEC/pro using the NEC4 engine was 27ï¿½.

Here are the results for average gain at 27ï¿½ EL.

Monopole -1.11 dBi
Cecil's dipole 1.596 dBi

73
Danny

4412. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 02:46:15 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c3dmtr$24pooq$4@ID-225834.news.uni-berlin.de>
Source record: 98037

Lloyd Mitchell wrote:

> without a doubt, i can highly recommend screwdriver type made by talheel
> antennas in NC. those antennas are great! I like them better than the
high
> serrias and even home made ones that are cheaper.
>
> go to http://www.tarheelantennas.com/
>
>
> "Jeremy Salch" <salchNOSPAM@tblx.net> wrote in message
> news:c3akn4$22uuq7$1@ID-225834.news.uni-berlin.de...
>> Butch wrote:
>>
>> > You need a Predator. Do a search for "predator antenna" Made for RVs
>> > and SUVs!
>> >
>> > Butch KF5DE
>> >
>> > Jeremy Salch wrote:
>> >> Anyone ever setup a screwdriver on a RV and have it work very well ?
>> >>
>> >> I have one installed but it preforms very poorly compared to
>> >> how well it worked on my car.
>> >>
>> >> I think it is not working very well because the entire antenna is next
> to
>> >> the side of the motorhome.. and on my car.. only maybe the bottom 2
> feet
>> >> of it were beside another surface.
>> >>
>> >> I guess another question would be.. does anyone know if it would
>> possibly
>> >> work better if it could be mounted at an angle instead of directly
>> >> vertical?
>> >>
>> >>
>> i'll check it out
>>
>> --
>> Registered Linux User #346565
>>

Well.. I've got a screwdriver antenna.. www.kj7u.com i'm working on
ways to mount it that will work.

--
Registered Linux User #346565

4413. Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 02:58:31 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <rlt6c.8629$F91.8390@lakeread05>
Source record: 98038

Mostly one sea-lawyer's rant in this group, was that it is illegal to interfere with any radio signal, etc. That opinion is absent of understanding the intent of that law, or where it may be applied.

On private property, one may install any device, counter-signal, shielding, etc that prevent or otherwise render inoperable any other signal that enters or tries to leave that property. There are reasonable exceptions, before the crazies ask what about a 1,000' balloon with radar reflector in your airspace right next to an airport. Get real. We're talking about a restaurant owner's right to make his interior airspace incompatible with cellular signals, and nobody can argue he doesn't have the right to do that, with or without notifying you of it. It's a courtesy if he tells you, tough luck if he doesn't.

Similarly, the government regulates and (tries) to ensure the operability of public communications while mitigating unnecessary or malicious interference. Neither apply to a private property owner's right to have cell-phone signals blocked on his property. If he invites the public, some states might pass laws to require he notifies the public of that blockage, but neither is it the public's right to assume that is so. A locality could also decide it will prevent cell signals during any venue that takes place on property it owns or leases. It's reasonable, it's "legal", and it's happening. Before long, somebody will concoct a way to beat those blockers, probably by a jam-resistant receiver card that plugs into the phone's antenna. Then you'll have to check your gun and your cellphone with the maitri d'. ;-)

Jack
Virginia Beach

4414. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:03:48 UTC
From: tdonaly@aol.com
Message-ID: <20040318220348.12186.00001702@mb-m02.aol.com>
Source record: 98039

Mark wrote,
>
>Jan Panteltje wrote:
>
><snip>
>
>>>unfortunately its not likely to happen. Little things like the clearly
>>>observable FACT that decades of repressive behaviour towards the
>>>palestinians has NOT resolved the problem, but made it WORSE, seem to have
>>>escaped the notice of successive israeli governments. so much for "an eye
>>>for an eye" being of any practical use.
>
> Um, Israel is backed up against the Mediterranean. What
>impenetrable barrier are the "Palestinians" backed up against?
>
> Mark L. Fergerson
>
>

Israeli fanaticism.

Tom Donaly

4415. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:04:42 UTC
From: David Williams <ddR_E_M_O_V_Ewilliams@northstate.net>
Message-ID: <105koqecutl289c@corp.supernews.com>
Source record: 98040
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

> > New anti-terrorist weapon => telemarketers. They call everybody.
Should wipe
> > out the bomb makers in about a week.
> >
> > Dave Head
>
> Not if they're on the Do Not Call list ;)
> --
> Best Regards,
> Mike

Please add me to the Do Not Bomb list! Aren't all terrorists required to
avoid
bombing those registered? Just like telemarketers?

David

4416. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:09:10 UTC
From: David Williams <ddR_E_M_O_V_Ewilliams@northstate.net>
Message-ID: <105kp2pir1ld1e7@corp.supernews.com>
Source record: 98042
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

> Changing laws and changing behaviour is *exactly* what they want. Fuck
> them. The only thing you can do is report suspicious packages at train
> stations etc. Other than that, just ignore the bastards and get on
> with your life - if you do anything else they have won.
>
> If you're scared then they have won. That's why it's called TERRORism.
> Look at the odds - if you're not scared of crossing the road you
> shouldn't be scared of terrorism.
>
>
> Tim
> --
> Love is a travelator.

A voice in the wilderness! Very well put.

David

4417. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:16:06 UTC
From: David Williams <ddR_E_M_O_V_Ewilliams@northstate.net>
Message-ID: <105kpfq370jp2db@corp.supernews.com>
Source record: 98043
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

> > >I noticed that the appearance of the no cell phone signs came around
the
> > >same time that gas stations started running audio commercials through
> > >speakers at the pump.
> > >
> > Interesting observation.
>
> we dont have audio commercials at the pump here in New Zealand
(thankfully),
> but we do have the no-cellphone signs though. It is likely to be no more
> than corporate paranoia - can we get our asses sued off if we dont tell
> people to do this.......I suggest we blame the lawyers
>

Cellphones can only ignite gasoline fumes in the vicinity of
cars prone to unintended acceleration.

David

4418. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:16:43 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <KEVXnSBbYmWAFwr+@jmwa.demon.co.uk>
Source record: 98047
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that David Williams <ddR_E_M_O_V_Ewilli
ams@northstate.net> wrote (in <105koqecutl289c@corp.supernews.com>)
about 'Cellphones and Bombs', on Thu, 18 Mar 2004:
>Aren't all terrorists required to
>avoid bombing those registered?

Sounds like the sort of law they pass in France. Or Tennessee. (;-)
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4419. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:18:40 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <p7s9fera9bvo$.dlg@news.individual.net>
Source record: 98045
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 22:04:42 -0500, David Williams wrote:

>>> New anti-terrorist weapon => telemarketers. They call everybody.
> Should wipe
>>> out the bomb makers in about a week.
>>>
>>> Dave Head
>>
>> Not if they're on the Do Not Call list ;)
>> --
>> Best Regards,
>> Mike
>
> Please add me to the Do Not Bomb list! Aren't all terrorists required to
> avoid
> bombing those registered? Just like telemarketers?
>
> David

ROFL. Yeah, but the list is only updated quarterly, the tangos are
only required to update every month, and if you're already a
customer, they can still bomb you until you request that they put
you on their corporate DNB list.

With the high quality urethane wheels available, I think all those
dunes, nuked into glass, would make an excellent skate park. The
flat areas would be perfect for R/C parks and rocket launches.

--
Best Regards,
Mike

4420. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:18:54 UTC
From: "R. Steve Walz" <rstevew@armory.com>
Message-ID: <405A6734.1E4C@armory.com>
Source record: 98044
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Active8 wrote:
>
> On Wed, 17 Mar 2004 13:08:33 -0700, Jim Thompson wrote:
>
> > I was struck by a thought when I heard the latest Palestinian
> > terrorist trick is to send a kid through the border with a back-pack
> > bomb triggered by a cell phone....
> >
> > The Israelis should get a telemarketer's speed dialer and constantly
> > dial away... boom... boom... boom...
> >
> > ROTFLMAO!
> >
> > ...Jim Thompson
>
> Had the liberals not f'd everything up, this would've been a common
> counter-terror measure. You place radio transmitters at sensitive
> locations to blow up car bombs before they got close enough to do
> damage. The theory is that if the tango pusses out, another tango
> remote detonates the bomb, so all bombs have a radio failsafe.
> --
> Best Regards,
> Mike

Doesn't work, they are set off with a touch tone code AFTER the
phone answers.

-Steve
--
-Steve Walz rstevew@armory.com ftp://ftp.armory.com/pub/user/rstevew
Electronics Site!! 1000's of Files and Dirs!! With Schematics Galore!!
http://www.armory.com/~rstevew or http://www.armory.com/~rstevew/Public

4421. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:19:09 UTC
From: David Williams <ddR_E_M_O_V_Ewilliams@northstate.net>
Message-ID: <105kpr93q7cp490@corp.supernews.com>
Source record: 98046
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

> Uh, a local Pastor's douche-bag wife recently backed over a BP
> station clerk here (while he was measuring the pumps) and drove off.
> He's in friggin' pain. Cops pulled the snotty bitch over and she
> claimed she didn't know she'd run over him. Was it the cell phone or
> the blaring xtian music?
> --
> Best Regards,
> Mike

A new type of cellphone bomb!

David

4422. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:26:12 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <w02ZbeBUhmWAFwO9@jmwa.demon.co.uk>
Source record: 98048
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that The Captain <Captain794@yahoo.com>
wrote (in <7199d521.0403181757.7ab27279@posting.google.com>) about 'CB
Radios, Cellphones and Gasoline Vapor Ignition', on Thu, 18 Mar 2004:
>All handheld radios used on rigs are
>intrinsically safe, making them far more expensive than the standard
>variety.

But do they NEED to be that costly or is that what the market will
stand?
>
>I very much doubt that cell phones are buit to intrinsicly safe
>standards, and under those circumstances I would certainly not feel safe
>near someone yacking while filling.
>
>So, an interesting querstion is; does your phone conform to UL
>requirements for intrinsic safety? And if not, why are you using it in
>an area where an explosive gas air mixture is possible?

We are effectively discussing whether there are any grounds for
requiring cell-phones, non-intrinsically safe, to be switched off, or
not used, at gas stations. So far, the numbers suggest that the hazard
is minute and the risk is also minute.

There is a relatively new philosophy being applied to safety standards,
including UL standards. It's called 'hazard-based', and requires a
logical chain of reasoning to justify every provision of a standard.
This is likely to result in significant changes to such standards over
the next decade or so. Many current standards have 'just growed' over
many years, and in some cases no-one knows why a certain provision is
included.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4423. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 03:41:47 UTC
From: Andy in NJ <"SHORECOGS at COMCAST DOT NET">
Message-ID: <KIydndGEKd6w8cfd4p2dnA@comcast.com>
Source record: 98049

Just buy an aluminum helmet and you'll be ooookay.

4424. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 04:11:10 UTC
From: Newsgroup Lurker <none@none.net>
Message-ID: <c3drt1$26oplo$1@ID-59690.news.uni-berlin.de>
Source record: 98050

http://zapatopi.net/afdb.html

These work best. Also keeps aliens and Art Bell from stealing your thoughts.
:)
Also know to keep radar. I just worry about my dog, I wonder if Osama Bin
Laden is using one so the CIA can not find him?

"Andy in NJ" <SHORECOGS at COMCAST DOT NET> wrote in message
news:KIydndGEKd6w8cfd4p2dnA@comcast.com...
> Just buy an aluminum helmet and you'll be ooookay.
>
>

4425. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 04:11:32 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <Upu6c.47424$aT1.22140@newsread1.news.pas.earthlink.net>
Source record: 98051

Oh, Cecil, Cecil, Cecil!

I appreciate your inputs, and I really don't want to pull your chain.
But I gotta say you are quite the maestro of the biased comparison!
[Have you considered working for a network news show? ;-)]

1. The discussion was about a 30m monopole, I thought.

2. If trees are assumed to be available to support dipoles,
then trees could be used to support a monopole.
But not being clairvoyant, I didn't know about your trees.
So what I had in mind was a self-supporting monopole,
versus 2 or 3 self-supporting dipole masts.

3. As to the gain figure, you seem to assume that the
dipole is always operating at the peak of one of its
lobes, and never has to operate in one of its nulls.
If only specific directions are of interest to you,
and if the dipole is oriented for those directions,
and if the operating frequency is low enough to
avoid multi-multi-lobe fragmentation of the pattern,
then I guess that's a good assumption for your situation.
But one can't assume that this assumption would apply
to everyone.

Here's some good news, though... Just to show you I believe
in being fair all around, I am honor-bound to report that:
Danny came up with a lower gain than you did for the modeled
monopole, thus increasing the modeled dipole's average
advantage to 2.7 dB.

BTW, I'm also using and enjoying dipoles out here in the
land of fruits and nuts.

73! Ed

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:405a4350_3@corp.newsgroups.com...
> Old Ed wrote:
> > I would say that's not a bad showing, considering the much smaller
> > footprint and greatly reduced support requirements.
>
> Huh???? My 40m monopole was the most difficult antenna I have
> ever attempted to erect. My dipole goes between two trees and
> gives me 9 dBi gain toward AZ on 30m. It's no contest.
> --
> 73, Cecil http://www.qsl.net/w5dxp

>
>

4426. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 04:28:29 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405a7731_7@corp.newsgroups.com>
Source record: 98052

Dan Richardson < wrote:
> Here are the results for average gain at 27ï¿½ EL.
>
> Monopole -1.11 dBi
> Cecil's dipole 1.596 dBi

For more of an omni-directional pattern, a 24 ft wire hanging
down from both ends of the dipole will beat the monopole by at
least a dB in *all* directions and by 6dB in four directions.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4427. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 04:36:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405a790c_7@corp.newsgroups.com>
Source record: 98053

Old Ed wrote:
> 2. If trees are assumed to be available to support dipoles,
> then trees could be used to support a monopole.

But trees absorb energy from the monopole which has no gain
to waste. Trees absorb virtually no energy from a dipole.

> 3. As to the gain figure, you seem to assume that the
> dipole is always operating at the peak of one of its
> lobes, and never has to operate in one of its nulls.

I never operate my antenna in a null. I also don't drive my
pickup one mile per hour even if I only average driving it
one hour per day. Seems by your logic, I should always walk
since I can walk faster than the average speed of my pickup
over any 24 hour period. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4428. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 04:44:04 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1rcmoyqp6zwjm$.dlg@news.individual.net>
Source record: 98054
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Fri, 19 Mar 2004 03:18:54 GMT, R. Steve Walz wrote:

> Active8 wrote:
>>
>> On Wed, 17 Mar 2004 13:08:33 -0700, Jim Thompson wrote:
>>
>>> I was struck by a thought when I heard the latest Palestinian
>>> terrorist trick is to send a kid through the border with a back-pack
>>> bomb triggered by a cell phone....
>>>
>>> The Israelis should get a telemarketer's speed dialer and constantly
>>> dial away... boom... boom... boom...
>>>
>>> ROTFLMAO!
>>>
>>> ...Jim Thompson
>>
>> Had the liberals not f'd everything up, this would've been a common
>> counter-terror measure. You place radio transmitters at sensitive
>> locations to blow up car bombs before they got close enough to do
>> damage. The theory is that if the tango pusses out, another tango
>> remote detonates the bomb, so all bombs have a radio failsafe.
>> --
>> Best Regards,
>> Mike
> -----------
> Doesn't work, they are set off with a touch tone code AFTER the
> phone answers.
>
> -Steve

Read the thread.

Now read this post.

car bomb - driver activated - needs no cell phone.

driver - chickens out - someone else remote detonates.

> Doesn't work, they are set off with a touch tone code AFTER the
> phone answers.
>
> -Steve

Is that why counterterror units had the system designed some 20 yrs
ago?

Someone else seems to think the T's aren't using DTMF. Does the
phone answer itself?
--
Best Regards,
Mike

4429. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 05:06:54 UTC
From: Terry Given <the_domes@xtra.co.nz>
Message-ID: <MJc6c.8716$rw6.174739@news.xtra.co.nz>
Source record: 98204
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Tim Auton" <tim.auton@uton.[groupSexWithoutTheY]> wrote in message
news:4ndi50loirkshdi00l8eh03qfrk1pjrli5@4ax.com...
> Jim Thompson <thegreatone@example.com> wrote:
>
> >I was struck by a thought when I heard the latest Palestinian
> >terrorist trick is to send a kid through the border with a back-pack
> >bomb triggered by a cell phone....
> >
> >The Israelis should get a telemarketer's speed dialer and constantly
> >dial away... boom... boom... boom...
>
> You would have to have every phone in the nation ring every couple of
> hours. They're not going to be stupid enough to have the phone both
> switched on and connected to the bomb until the last minute.
>
>
> Tim
> --
> Love is a travelator.

this will probably go down like a cup of cold sick, but:

a better technique would be for the israeli government to pull their heads in, and start acting like humans instead of nazis (deliberate comparison - I am continually astounded that this behaviour comes from a people who survived the Holocaust - surely the darkest moment in human history).

Actually attempt to reach a meaningful peace settlement, thereby getting on-side with the bulk of the palestinian population, most of whom just want to get on with their lives.

this would of course not deter the individual fanatical palestinian lunatics, but would seriously erode their support base. The individual nutters could be whacked one at a time (dont blow up an entire apartment building killing dozens of kids to get one suicide bomber - that doesnt help, and is no better than the suicide bombers behaviour).

No, I am NOT an apologist for suicide bombers - not those that target civilians at any rate. I find it odd that its not OK for suicide bombers to kill soldiers though, but it is OK for soldiers to kill suicide bombers

unfortunately its not likely to happen. Little things like the clearly observable FACT that decades of repressive behaviour towards the palestinians has NOT resolved the problem, but made it WORSE, seem to have escaped the notice of successive israeli governments. so much for "an eye

for an eye" being of any practical use.

I am not interested in arguments about whether or not Israel should exist (it does), who was originally right or wrong (6-day war etc) or any other pointless arguments. The current situation exists, time doesnt flow backwards, and if a real solution is not found, the terrorism will not only continue, but will coninue to get worse. Neither side seems interested in moving forward though, they are caught up in an ever-escalating round of murderous tit-for-tat.

France, Spain and Britain on the other hand have endured terrorism for decades, pretty much without resorting to such behaviour (bloody sunday is probably a good example of the brits losing the plot, and its pretty clear that it was a BAD idea)

4430. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 05:10:03 UTC
From: Terry Given <the_domes@xtra.co.nz>
Message-ID: <KMc6c.8721$rw6.174785@news.xtra.co.nz>
Source record: 98205
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"DarkMatter" <DarkMatter@thebarattheendoftheuniverse.org> wrote in message
news:n65i50p1gr3ionsq5vhvcthg4qumcdlau6@4ax.com...
> On Wed, 17 Mar 2004 16:26:54 -0500, "Dave VanHorn"
> <dvanhorn@cedar.net> Gave us:
>
> >I noticed that the appearance of the no cell phone signs came around the
> >same time that gas stations started running audio commercials through
> >speakers at the pump.
> >
> Interesting observation.

we dont have audio commercials at the pump here in New Zealand (thankfully),
but we do have the no-cellphone signs though. It is likely to be no more
than corporate paranoia - can we get our asses sued off if we dont tell
people to do this.......I suggest we blame the lawyers

4431. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 05:18:03 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <r4tk50dvrj3uhgvcukdhot3c6u7am184rb@4ax.com>
Source record: 98057
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 17:57:15 -0800, "CW" <clinton.magers@comcast.net>
wrote:

>. I don't have one, never
>have and wouldn't care if they disappeared from the planet but in no way
>will I ever approve of electronic jamming of them

Just like the Pope is an expert on sex and birth control. He ain't
got any either. Aka Everyone should make babies but don't expect His
Holiness to help you with the consequences of bringing one into the
world. Ergo, everyone should have unrestricted useage to all the toys
of modern technology. If they can be used to blow people up, tough,
that's a price worth paying for freedom and democracy.

>unless under a carefully
>controlled situation for a specific reason.

Which is exactly what is being proposed. Specific denial in specific
and limited public places. They don't allow you to bring box cutters
and nail clippers on air flights and these are pretty lame threats.
What's so different from not letting you have a live device that can
be a remote bomb trigger when you are in specific high value targets
- crowded public places where it will cause the greatest carnage.

There are more than enough existing examples of cellphone use denial
to poke holes into whatever "the full weight of the (unquoted) law"
injunction you are threatening with eternal damnation in hell. As we
speak Michael Powell, Chairman of the FCC, is making big changes to
the communications laws. What's so untouchable about changes to
whatever (unquoted) law there may be on limiting cellphone access.

One more example is the rule that you, whether you are on staff or a
visitor, do not bring a camera equipped cellphone into certain
business premises. My earlier comment on telephone use in commercial
aircraft. Cellphone bans in places like concert halls. Cellphone
check-in in snotty restaurants. These are all denial of use. Jamming
is just one form of it.

This is a public policy matter and you seem incapable of
distinguishing between the two issues. This is not a technology issue
and its obvious you know squat about electronics. Technology created
an unintended and real public danger in that cellphones are very
easily modified and a reliable way to set off bombs. We are exploring
technology solutions to remedy that. I have thrown open some ideas.
I made no claim that they are the solutions. You haven't suggested

any alternatives. Meanwhile blowing up innocent people is perfectly acceptable to you so long as these same innocent people can use their cellphone anywhere 24/7.

To the objections from other posts; of course a determined terrorist will always get through. Who can stop one who is willing to blow himself up. Technology solutions will never solve everything and for every solution there is always another counter measure. That's why we all still have jobs to go to. But if we have a fairly simple preventive measure coupled with an equally simple screening process we can eliminate suspecting everyone and concentrate on the small number of likely suspects and make it harder for terrorists to plant bombs at will and at random.

Aaah, what the heck. Only CW seems to have objections. Who cares.

4432. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 05:21:56 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <bj0l50hldf4d8kht8j0juf5epejf61b3th@4ax.com>
Source record: 98058
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 18:12:08 -0800, "CW" <clinton.magers@comcast.net>
wrote:

>The ideas are getting better but are you going to be the one to explain to
>people's families that it was for the public good that you were transmitting
>a signal designed to set off a bomb in a crowded place? It should get the
>terrorist and the couple of dozen people behind him waiting to get through
>the check point.
>
I can't make out any logic in what you have written. Are you also
plain English challenged besides being technology, legal knowledge and
public policy challenged?

4433. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 05:21:56 UTC
From: Terry Given <the_domes@xtra.co.nz>
Message-ID: <SXc6c.8735$rw6.174997@news.xtra.co.nz>
Source record: 98207
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

"Guy Macon" <http://www.guymacon.com> wrote in message
news:8IOdnQLX5_QlYMXdRVn-hA@speakeasy.net...
>
> CW <clinton.magers@comcast.net> says...
>
> >Better not open your door or have someone else open theirs next
> >to yu then. That dome light switch might get you.
>
> :)
>
> The Petroleum Equipment Institute reports that there have been 150
> US pump fires in the last 10 years. (fires, not deaths. Most pump
> fires don't kill anyone) Compare that to the roughly 500,000 auto
> accident deaths, roughly 500,000 medical error deaths, and roughly
> 300,000 influenza deaths during that same period.

people have strange ideas of what constitutes a risk, your stats being a good example. Tumours from cellphones is a doozy, especially when the people with the cellphones are using them while driving kinetic weapons carrying 20-50L of highly flammable dreadfully toxic petrol.

I have seen pictures of a static-triggered fire (utterly destroyed a newish mitsy station wagon) at a BP in Hamilton, NZ, on the counter. No suggestions about how to avoid it of course.

A similar effect shows up with occupational safety - people have a level of risk with which they are happy. Make something safer, and people do more dangerous things. The example I recall is fall arresters used on scaffolding - after all staff were required to use (re-usable, not one-shot) fall arrestors, injuries at one firm in NZ went UP, because staff were playing silly buggers all the time and leaping off the scaffolding for fun.......

4434. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 05:54:13 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <991l5091fq1adsuv7l9st8fhubs2peaodt@4ax.com>
Source record: 98059
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Fri, 19 Mar 2004 01:32:03 GMT, Spehro Pefhany
<speffSNIP@interlogDOTyou.knowwhat> wrote:

>>>On a different discussion point, picture the recent Spanish train
>>bombings (10 set off.) Had the train installed cellphone signal
>>blocking equipment most of those bombs would probably not have been
>>set off.
>
>From the fact that few of them went off in the station, where they
>would have been far more effective, one may conclude that they were
>triggered by simple timers.
>

Let's say three bombs went off at the station. If the other seven
were prevented from going off that would still have been a significant
victory against terror.

Of course terrorists will always find other ways to detonate their
bombs and the most effective method is still the suicide bomber, no
technology sophistication there. Be forewarned. They will not remain
the technology primitives they are today. In this escalating war new
solutions will have to be found again and again. But in the meantime
I think I have put forth a reasonable proposal that is cheap and
easily implemented, to greatly reduce the opportunities for cellphone
triggered bombs. More important, perhaps to reduce the enormous
effort and costs to provide surveillance in public places.

I like my idea of a built-in transponder chip that can be interrogated
at check-out counters. A portable interrogator can be used to check
abandoned packages from a safe distance without needing to know the
cellphone call number. The Spanish rescue team found an unexploded
bomb laden bag with a cellphone trigger and were very lucky that it
didn't go off.

4435. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 06:14:41 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <6vSdnbr8FojtEsfdRVn-sA@comcast.com>
Source record: 98060
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I new you were an idiot. Plonk.
"KLM" <klmok88@yahoo.com> wrote in message
news:bj0l50hldf4d8kht8j0juf5epejf61b3th@4ax.com...
> On Thu, 18 Mar 2004 18:12:08 -0800, "CW" <clinton.magers@comcast.net>
> wrote:
>
> >The ideas are getting better but are you going to be the one to explain
to
> >people's families that it was for the public good that you were
transmitting
> >a signal designed to set off a bomb in a crowded place? It should get the
> >terrorist and the couple of dozen people behind him waiting to get
through
> >the check point.
> >
> I can't make out any logic in what you have written. Are you also
> plain English challenged besides being technology, legal knowledge and
> public policy challenged?

4436. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 06:23:31 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Elw6c.9015$F91.8522@lakeread05>
Source record: 98061
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"KLM" <klmok88@yahoo.com> wrote in message
news:bj0l50hldf4d8kht8j0juf5epejf61b3th@4ax.com...
> On Thu, 18 Mar 2004 18:12:08 -0800, "CW" <clinton.magers@comcast.net>
> wrote:
> I can't make out any logic in what you have written. Are you also
> plain English challenged besides being technology, legal knowledge and
> public policy challenged?

I can attest to his challenges with the last three. I posted this comment as a seperate header but it never showed up, so here is the deal on property rights and blocking cell signals again:

Mostly one sea-lawyer's rant in this group, was that it is illegal to interfere with any radio signal, etc. That opinion is absent of understanding the intent of that law, or where it may be applied.

On private property, one may install any device, counter-signal, shielding, etc that prevent or otherwise render inoperable any other signal that enters or tries to leave that property. There are reasonable exceptions, before the crazies ask what about a 1,000' balloon with radar reflector in your airspace right next to an airport. Get real. We're talking about a restaurant owner's right to make his interior airspace incompatible with cellular signals, and nobody can argue he doesn't have the right to do that, with or without notifying you of it. It's a courtesy if he tells you, tough luck if he doesn't.

Similarly, the government regulates and (tries) to ensure the operability of public communications while mitigating unnecessary or malicious interference. Neither apply to a private property owner's right to have cell-phone signals blocked on his property. If he invites the public, some states might pass laws to require he notifies the public of that blockage, but neither is it the public's right to assume that is so. A locality could also decide it will prevent cell signals during any venue that takes place on property it owns or leases. It's reasonable, it's "legal", and it's happening. Before long, somebody will concoct a way to beat those blockers, probably by a jam-resistant receiver card that plugs into the phone's antenna. Then you'll have to check your gun and your cellphone with the maitri d'. ;-)

Jack
Virginia Beach

4437. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 07:18:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rd7l50l3n1nlm675kkc8e72mh3h9b37u8o@4ax.com>
Source record: 98062

On Fri, 19 Mar 2004 04:11:32 GMT, "Old Ed"
<eseniorsR-E-M-O-V-E@earthlink.net> wrote:
>Oh, Cecil, Cecil, Cecil!
>If trees
>you seem to assume
>If only
>and if
>and if
>then I guess

Good guess, but about what?

73's
Richard Clark, KB7QHC

4438. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 07:20:40 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <405A9F48.3010903@optusnet.com.au>
Source record: 98063

Gidday Jack

I heard a story that in Australia's government house there are wide band
jammers or large amounts of shielding installed so that mobile phones
will not "go off" in the senate and house of reps chambers.

Note that this would contravene the laws in Autralia on jamming devices.

If that isnt an endorsment nothing is!

Cheers Bob

Jack Painter wrote:
> Mostly one sea-lawyer's rant in this group, was that it is illegal to
> interfere with any radio signal, etc. That opinion is absent of
> understanding the intent of that law, or where it may be applied.
>
> On private property, one may install any device, counter-signal, shielding,
> etc that prevent or otherwise render inoperable any other signal that enters
> or tries to leave that property. There are reasonable exceptions, before the
> crazies ask what about a 1,000' balloon with radar reflector in your
> airspace right next to an airport. Get real. We're talking about a
> restaurant owner's right to make his interior airspace incompatible with
> cellular signals, and nobody can argue he doesn't have the right to do that,
> with or without notifying you of it. It's a courtesy if he tells you, tough
> luck if he doesn't.
>
> Similarly, the government regulates and (tries) to ensure the operability of
> public communications while mitigating unnecessary or malicious
> interference. Neither apply to a private property owner's right to have
> cell-phone signals blocked on his property. If he invites the public, some
> states might pass laws to require he notifies the public of that blockage,
> but neither is it the public's right to assume that is so. A locality could
> also decide it will prevent cell signals during any venue that takes place
> on property it owns or leases. It's reasonable, it's "legal", and it's
> happening. Before long, somebody will concoct a way to beat those blockers,
> probably by a jam-resistant receiver card that plugs into the phone's
> antenna. Then you'll have to check your gun and your cellphone with the
> maitri d'. ;-)
>
> Jack
> Virginia Beach
>
>

4439. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 08:12:06 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <wNCdnR4wmJwpWMfd4p2dnA@comcast.com>
Source record: 98065
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Another ignorent one. This thred seems to be full of them.

>"Jack Painter" uttered a bunch of useless crap.

4440. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 09:29:15 UTC
From: Frank Bemelman <f.bemelmanx@planet.invalid.nl>
Message-ID: <405abc48$0$31691$c3e8da3@news.astraweb.com>
Source record: 98064
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"KLM" <klmok88@yahoo.com> schreef in bericht
news:991l5091fq1adsuv7l9st8fhubs2peaodt@4ax.com...
> On Fri, 19 Mar 2004 01:32:03 GMT, Spehro Pefhany
> <speffSNIP@interlogDOTyou.knowwhat> wrote:
>
>
> >>>On a different discussion point, picture the recent Spanish train
> >>bombings (10 set off.) Had the train installed cellphone signal
> >>blocking equipment most of those bombs would probably not have been
> >>set off.
> >
> >From the fact that few of them went off in the station, where they
> >would have been far more effective, one may conclude that they were
> >triggered by simple timers.
> >
>
> Let's say three bombs went off at the station. If the other seven
> were prevented from going off that would still have been a significant
> victory against terror.
>
> Of course terrorists will always find other ways to detonate their
> bombs and the most effective method is still the suicide bomber, no
> technology sophistication there. Be forewarned. They will not remain
> the technology primitives they are today. In this escalating war new
> solutions will have to be found again and again. But in the meantime
> I think I have put forth a reasonable proposal that is cheap and
> easily implemented, to greatly reduce the opportunities for cellphone
> triggered bombs. More important, perhaps to reduce the enormous
> effort and costs to provide surveillance in public places.
>
> I like my idea of a built-in transponder chip that can be interrogated
> at check-out counters. A portable interrogator can be used to check
> abandoned packages from a safe distance without needing to know the
> cellphone call number. The Spanish rescue team found an unexploded
> bomb laden bag with a cellphone trigger and were very lucky that it
> didn't go off.

Forget it. You can't fight terrorism. You can only take away
the anger/frustration that *feeds* it, which takes time and
a lot of wisdom. A roll of duct-tape isn't going to fix anything.

--
Thanks, Frank.
(remove 'x' and 'invalid' when replying by email)

4441. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 10:39:34 UTC
From: Guy Macon <http>
Message-ID: <rPednelqsJlsUMfdRVn-hg@speakeasy.net>
Source record: 98066
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

A: Because it messes up the order in which people normally read text.
Q: Why is top-posting such a bad thing?
A: Top-posting.
Q: What is the most annoying thing on Usenet?

CW <clinton.magers@comcast.net> says...

>You can try to ratioanlize it as much as you want. The willfull electronic
>interference of a radio service is a crime.

You need to stop saying things like "is a crime" when posting to
Usenet, a medium that is worldwide.

Also, the following web pages may help you:

Bottom vs. top posting and quotation style on Usenet
http://www.cs.tut.fi/~jkorpela/usenet/brox.html

Why bottom-posting is better than top-posting
http://www.caliburn.nl/topposting.html

+What do you mean "my reply is upside-down"?
http://www.i-hate-computers.demon.co.uk/

The advantages of usenet's quoting conventions
http://homepage.ntlworld.com/g.mccaughan/g/remarks/uquote.html

Why should I place my response below the quoted text?
http://allmyfaqs.com/cgi-bin/wiki.pl?Top-posting_or_bottom-posting

Quoting Style in Newsgroup Postings
http://www.xs4all.nl/%7ewijnands/nnq/nquote.html

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4442. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 10:57:29 UTC
From: Guy Macon <http>
Message-ID: <rPednR0qsJm5T8fdRVn-hg@speakeasy.net>
Source record: 98067
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

Active8 <reply2group@ndbbm.net> says...

>Someone else seems to think the T's aren't using DTMF. Does the
>phone answer itself?

The B*s*c St*mp that decodes the DTMF cam also look for a ring
and answer the phone.

Terrorists hire engineers and technicians. Countermeasures that
any random sci.electronics.design participant can defeat are a
waste of effort.

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4443. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 11:00:32 UTC
From: Guy Macon <http>
Message-ID: <rPednRwqsJlGT8fdRVn-hg@speakeasy.net>
Source record: 98068
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

KLM <klmok88@yahoo.com> says...

>I like my idea of a built-in transponder chip that can be interrogated
>at check-out counters.

It has a fatal flaw. Al, the terrorists have to do is to buy a
couple of hundred of the current cell phones that lack the chip
and store them away for making bombs with.

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4444. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 12:29:27 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <qz4ice37tg4n$.dlg@news.individual.net>
Source record: 98069
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Fri, 19 Mar 2004 05:54:13 GMT, KLM wrote:

> On Fri, 19 Mar 2004 01:32:03 GMT, Spehro Pefhany
> <speffSNIP@interlogDOTyou.knowwhat> wrote:
>
>
>>>>On a different discussion point, picture the recent Spanish train
>>>bombings (10 set off.) Had the train installed cellphone signal
>>>blocking equipment most of those bombs would probably not have been
>>>set off.
>>
>>From the fact that few of them went off in the station, where they
>>would have been far more effective, one may conclude that they were
>>triggered by simple timers.
>>
>
> Let's say three bombs went off at the station. If the other seven
> were prevented from going off that would still have been a significant
> victory against terror.
>
> Of course terrorists will always find other ways to detonate their
> bombs and the most effective method is still the suicide bomber, no
> technology sophistication there. Be forewarned. They will not remain
> the technology primitives they are today. In this escalating war new
> solutions will have to be found again and again. But in the meantime
> I think I have put forth a reasonable proposal that is cheap and
> easily implemented, to greatly reduce the opportunities for cellphone
> triggered bombs. More important, perhaps to reduce the enormous
> effort and costs to provide surveillance in public places.
>
> I like my idea of a built-in transponder chip that can be interrogated
> at check-out counters. A portable interrogator can be used to check
> abandoned packages from a safe distance without needing to know the
> cellphone call number. The Spanish rescue team found an unexploded
> bomb laden bag with a cellphone trigger and were very lucky that it
> didn't go off.

Objections of others partially aside, you're getting close to a
workable idea. If a few of the off the shelf trak phones had to be
recalled or exchanged for new ones, any old ones the T's stockpiled
would be worthless.

The RFID systems could be set up to either cover a small area like a
turnstile or a larger area depending on how you wanted to go about

implementing security for a given loacation.

The problem to overcome is that we don't want to set one off in a crowd, so we don't want it to ring in response to the RFID interrogation. We also don't want an invasion of privacy, so a generic RFID response would be the solution.

We also don't want the thing detonating from the interrogation with people around and that's the biggest prob. You have to admit only one person at a time into the area. That's not too bad. It's common courtesy to stand back from someone using an ATM so maybe a few feet will do. Like in a bank line.

I don't imagine the T's will want the thing detonating at the check point either, so they'll probably have that figured out and an inspection of the phone should reveal anything suspicious.

I think the real problem is the human factor. When baggage handlers make $15/hr and get full union benefits, while the security contractor pays his monkeys minimum wage, you have apathy. This is no BS, it's serious. Back in the 80's after the Berlin disco bombing and a few other attacks, people were talking a lot about security. And talking is about all they did.

I went through the security check at the Atlanta airport and after being admitted into the so-called secure area I had to go to the bathroom so I asked where it was. Damned if it wasn't outside the secure area. I went out through an unckecked passage and came right back in. No one bothered checking me.

Last few times I went through a metal detector, I set it off. The first time, the guard checked me with the wand and suggested it was my shoes or the jacket zipper, but didn't ask me to remove them. The second time (a month later) I went through, the same guard was there. I just pointed to the shoes and the zipper and I was in. Friggin' apathy. Maybe he remembered that the wand didn't indicate a big enough chunk of metal, but that jacket fit just about right to conceal a Glock.
--
Best Regards,
Mike

4445. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 13:06:38 UTC
From: Costas Vlachos <c-X-vlachos@hot-X-mail.com>
Message-ID: <c3er8t$69c$1@sparta.btinternet.com>
Source record: 98070
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Spehro Pefhany" <speffSNIP@interlogDOTyou.knowwhat> wrote in message
news:cojk50puqeltf2bjfj83kor0jvetrc0vft@4ax.com...
> On Fri, 19 Mar 2004 01:08:01 GMT, the renowned KLM <klmok88@yahoo.com>
> wrote:
>
> >>On a different discussion point, picture the recent Spanish train
> >bombings (10 set off.) Had the train installed cellphone signal
> >blocking equipment most of those bombs would probably not have been
> >set off.
>
> From the fact that few of them went off in the station, where they
> would have been far more effective, one may conclude that they were
> triggered by simple timers.
>
> Best regards,
> Spehro Pefhany

Yes, that is correct - at least that's what was said on the news channels
here in the UK. The Spanish bombs were triggered by mobile phones set on
alarm at 7:39am IIRC - the phones didn't even have to have SIM cards in
them. No signal jamming equipment could have prevented them from going off.

cheers,
Costas

4446. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 13:35:12 UTC
From: Vito <vito@crosslink.net>
Message-ID: <405af713$0$17281@dingus.crosslink.net>
Source record: 98071

Tarheel offered a motorized mount for RV's, etc, that moved their antennae
from horizontal to vertical to allow mounting atop the moho.
73, K3DWW

"Jeremy Salch" <salchNOSPAM@tblx.net> wrote

> Lloyd Mitchell wrote:
>
> > go to http://www.tarheelantennas.com/
> > >
> Well.. I've got a screwdriver antenna.. www.kj7u.com i'm working on
> ways to mount it that will work.

4447. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 13:46:52 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <0IGdnUG-9fJXZMfd4p2dnA@comcast.com>
Source record: 98072

Richard,

Lets look at a real case. A 7 MHz square wave contains no energy at 14 MHz. Now change the duty cycle so that the signal is ON for 25% and OFF for 75% of the time. Now you have energy at 14 MHz. One way to look at what we have done is to think of the 25/75 signal as being a 1/2 cycle of 14 MHz every 2 cycles of 14 MHz. Obviously, the rise and fall times have to be short enough to transmit these narrower pulses. The faster the rise and fall times, the more higher frequencies you get.

Tam/WB2TT
"Richard Fry" <rfry@adams.net> wrote in message
news:c39o8n$24q2mm$1@ID-175933.news.uni-berlin.de...
> Reg Edwards wrote
> > The shape of the pulse, the width of the pulse, the time interval
> > between pulses, all affect the harmonic frequency spectrum.
> > They act both independently and in conjunction with each other.
> ----------------
>
> Please explain the reason why the bandwidth characteristics needed to
> generate a single transition from one DC level to another is different
than
> when repeating that same transition any number of times before or after.
>
> RF
>
>

4448. Re: small mobile antenna suggestion?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 13:53:03 UTC
From: derswede@aol.comspam.com
Message-ID: <20040319085303.07878.00000017@mb-m11.aol.com>
Source record: 98073

<< I would like it to be quite short (less than 30cm/12in) or
> be able to fold it somehow, so that I can park my car (SUV) in the
> basement. >>

Tho not always true, "short" and "good performance" rarely go hand in hand. If you're willing to fold over, look at the Comet SB15 or the Diamond equiv....my SB15 has around 100K miles on it, works great, excellent performance (both FM and SSB) for a vertical and folds over for those nasty parking decks. Ford was SO nice to put in an antenna holder on their SUVs (company vehicle)....it is called the rear window wiper....

Now, to get the wife to allow me to put one on the new Mini....with a screwdriver on the other side. Hmmm, think the ATAS120 might work...mini-screwdriver for a Mini.....

A

4449. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 14:06:02 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <EdxEhvDK5vWAFwaN@jmwa.demon.co.uk>
Source record: 98074
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that KLM <klmok88@yahoo.com> wrote (in
<r4tk50dvrj3uhgvcukdhot3c6u7am184rb@4ax.com>) about 'Cellphones and
Bombs', on Fri, 19 Mar 2004:

>To the objections from other posts; of course a determined terrorist
>will always get through. Who can stop one who is willing to blow
>himself up.

If he acts entirely alone, like the one who blew up the gay pub in
London, no-one, unless by chance - nail-bomb in Brixton.

But anyone who confides in others is vulnerable to infiltration, and
there's a lot of that going on, you can be sure.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4450. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 14:22:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405b0256_3@corp.newsgroups.com>
Source record: 98075

Richard Clark wrote:
> On Fri, 19 Mar 2004 04:11:32 GMT, "Old Ed"
> <eseniorsR-E-M-O-V-E@earthlink.net> wrote:
>
>>Oh, Cecil, Cecil, Cecil!
>>If trees
>>you seem to assume
>>If only
>>and if
>>and if
>>then I guess
>
> Good guess, but about what?

Please look up "analogy" in the dictionary and "conditional
statements" in a good logic book. And look up "emoticon"
on the web.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4451. Re: Through the wall antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 14:47:07 UTC
From: Harv Nelson <harv@wherever.net>
Message-ID: <405B07EB.4040709@wherever.net>
Source record: 98076

Jim Volstad wrote:
> I am planning a vertical antenna in my back yard and was wondering if there
> is a product that will allow me to have a SO-239 to SO-239 connection
> through the house wall?
>
> Jim Volstad
> WA0TRY
>
>
Method #1

I do it with a piece of 2 1/2 inch PVC tubing. Cut a whole in the wall where you want it to pass (look out for the studs!). Cut a piece of pipe of suitable length for your wall ... glue a "street el" or 90 on one end. This will serve to keep water out of the pipe ... point the open end down. Push the pipe thru the wall. Use some caulking to seal the damage and tighten it up (it'll dry tight in a couple days).

On the inside you can use a variety of decorative "floor rings/plates" , some more caulk, and some paint.

Once you have your coax cables in the pipe, you can fill the void with a rag, and putty or kids plastic clay. That'll keep out the bugs, mice and chipmunks. Don't use that spray foam sealant ... its a bitch to remove later, when you want to put in another line. If you leave a tiny end of the rag exposed, all it takes is a little tug and most of the putty or clay will come out with the rag.

It sounds ugly ... but done correctly, its less work and less visable than many other schemes.

Method #2

This method requires two pieces of lumber 3/4" thick 4-5" wide and long enough to fit in a window where the sash is raised. On the edge of each piece of wood, cut a notch for each piece of coax about the length and width of your thumb. Put one hunk of wood in the window well ... notches up. Lay in your coax lines in the notches. Place the other hunk of wood over the coax, notches down. Push the window back down to hold the wood in place. Use some plastic and tape to keep the weather and bugs out at the top of the window.

After you make the first set, you'll see how to make the second set so that its a nearly perfect seal around the coax. A little caulk or silicone seal will tighten the whole works up.

Its cheap, and unlike method #1, above, there is no structural damage, or repairs to make when you want to sell the house ... or get your renter's deposit back.

Harv, AI9NL

4452. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 14:47:50 UTC
From: Toni <post_to_usenet@hotmail.com>
Message-ID: <5u1m50pj73f3jt2ql6rk2s6odl6m89vdbr@4ax.com>
Source record: 98077

En Norbert va escriure en Thu, 18 Mar 2004 15:40:56 +0100:

>I have several loops working here.
>
>73, Norbert (PA7NR)
>http://www.qsl.net/pa7nr/index.html

Very interesting, thanks.

Would you know if I3VHF has a web page? I have tried googling for
it with no luck.

73,
EA3FYA - Toni

4453. Re: Through the wall antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 14:49:46 UTC
From: Harv Nelson <harv@wherever.net>
Message-ID: <405B088A.4020808@wherever.net>
Source record: 98078

Jim Volstad wrote:
> I am planning a vertical antenna in my back yard and was wondering if there
> is a product that will allow me to have a SO-239 to SO-239 connection
> through the house wall?
>
> Jim Volstad
> WA0TRY
>
>

Method #1

I do it with a piece of 2 1/2 inch PVC tubing. Cut a whole in the wall where you want it to pass (look out for the studs!). Cut a piece of pipe of suitable length for your wall ... glue a "street el" or 90 on one end. This will serve to keep water out of the pipe ... point the open end down. Push the pipe thru the wall. Use some caulking to seal the damage and tighten it up (it'll dry tight in a couple days).

On the inside you can use a variety of decorative "floor rings/plates" , some more caulk, and some paint.

Once you have your coax cables in the pipe, you can fill the void with a rag, and putty or kids plastic clay. That'll keep out the bugs, mice and chipmunks. Don't use that spray foam sealant ... its a bitch to remove later, when you want to put in another line. If you leave a tiny end of the rag exposed, all it takes is a little tug and most of the putty or clay will come out with the rag.

It sounds ugly ... but done correctly, its less work and less visable than many other schemes.

Method #2

This method requires two pieces of lumber 3/4" thick 4-5" wide and long enough to fit in a window where the sash is raised. On the edge of each piece of wood, cut a notch for each piece of coax about the length and width of your thumb. Put one hunk of wood in the window well ... notches up. Lay in your coax lines in the notches. Place the other hunk of wood over the coax, notches down. Push the window back down to hold the wood in place. Use some plastic and tape to keep the weather and bugs out at the top of the window.

After you make the first set, you'll see how to make the second set so that its a nearly perfect seal around the coax. A little caulk or silicone seal will tighten the whole works up.

Its cheap, and unlike method #1, above, there is no structural damage, or repairs to make when you want to sell the house ... or get your renter's deposit back.

Harv, AI9NL

4454. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 15:05:55 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <n%D6c.9820$F91.1309@lakeread05>
Source record: 98079

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:405A9F48.3010903@optusnet.com.au...
> Gidday Jack
>
> I heard a story that in Australia's government house there are wide band
> jammers or large amounts of shielding installed so that mobile phones
> will not "go off" in the senate and house of reps chambers.
>
> Note that this would contravene the laws in Autralia on jamming devices.
>
> If that isnt an endorsment nothing is!
>
> Cheers Bob
>
> Jack Painter wrote:
> > Mostly one sea-lawyer's rant in this group, was that it is illegal to
> > interfere with any radio signal, etc. That opinion is absent of
> > understanding the intent of that law, or where it may be applied.
> >
> > On private property, one may install any device, counter-signal,
shielding,
> > etc that prevent or otherwise render inoperable any other signal that
enters
> > or tries to leave that property.

Hi Bob,

For sure, the government that regulates can use selective enforcement
however it chooses. In the U.S., the Federal Communications Commission
probably makes it difficult to get type-acceptance for manufacture and sale
of equipment designed to "jam" signals, and properly so. The cell phone
industry has a decided interest in preventing widespread usage of devices
designed to imperil their equipment performance. Using such a device on
private property may be fine, if it does not interfere with signals outside
the premises. But obtaining one in the first place will be difficult.

Jack
Virginia Beach

4455. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 15:12:34 UTC
From: Andy in NJ <"SHORECOGS at COMCAST DOT NET">
Message-ID: <NpOdnZoT2fB_kMbdRVn-gQ@comcast.com>
Source record: 98080

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:405A9F48.3010903@optusnet.com.au...
> Gidday Jack
>
> I heard a story that in Australia's government house there are wide band
> jammers or large amounts of shielding installed so that mobile phones
> will not "go off" in the senate and house of reps chambers.

Here in the states we have an even better method. It's called T-Mobile.
Guarenteed that your cell phone won't ring.

:)

4456. Re: Electric and Magnetic fields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 15:50:39 UTC
From: Norbert <pa7nrNNOSPAMMM@qsl.net>
Message-ID: <aFE6c.16134$PC1.173032@zonnet-reader-1>
Source record: 98081

> >I have several loops working here.
> >
> >73, Norbert (PA7NR)
> >http://www.qsl.net/pa7nr/index.html
>
> Very interesting, thanks.
>
> Would you know if I3VHF has a web page? I have tried googling for
> it with no luck.
>
> 73,
> EA3FYA - Toni

Toni,

The internetsite of I3VHF is:
http://script.dan.it/mazzoni/

One of the resellers is the Wimo company in Germany:
http://www.wimo.de

check for HF antennas, magnetic loops. They have an interesting page about
this antenna.

73, Norbert (PA7NR)
http://www.qsl.net/pa7nr/index.html

4457. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 16:18:51 UTC
From: dplatt@radagast.org
Message-ID: <105m7bbtgptfm22@corp.supernews.com>
Source record: 98082
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In article <c3er8t$69c$1@sparta.btinternet.com>,
Costas Vlachos <c-X-vlachos@hot-X-mail.com> wrote:

>Yes, that is correct - at least that's what was said on the news channels
>here in the UK. The Spanish bombs were triggered by mobile phones set on
>alarm at 7:39am IIRC - the phones didn't even have to have SIM cards in
>them. No signal jamming equipment could have prevented them from going off.

Ah - the modern equivalent of the classic alarm-clock timing
mechanism. Modern digital watches would work about as well.

As to the idea of jamming cellphone frequencies: even if physically
practical, and even if the government would authorize widespread
distribution of devices which jammed a licensed radio service
(doubtful IMO since the cellphone companies paid $$$ for their
licenses and would doubtless fight it in court), it would only move
the problem elsewhere. There are far too many radio frequency bands,
and far too much commonly-available equipment which could be modified
to allow for remote detonation control over moderate distances. Garage
door openers with rolling-code security, portable radios of all sorts,
etc. could all be incorporated into a scheme for remote- controlled
mass murder by those whose inventiveness and skills outweighs their
ethics and humanity.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4458. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 16:27:46 UTC
From: Bob McConnell <rmcconne@NOSPAM.lightlink.com>
Message-ID: <c3f722iij1@xuxa.iecc.com>
Source record: 98085
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

On 17 Mar 2004 16:14:24 GMT, "Dave VanHorn" <dvanhorn@cedar.net>
wrote:

>
>"Scott Dorsey" <kludge@panix.com> wrote in message
>news:c37iek$g15$1@xuxa.iecc.com...
>> tommyknocker <tomynokr@uucp.hell> wrote:
>> >Forget about getting an atomic clock to set in Hawaii. The signal is
>> >simply too weak. Atomic Time (who I bought my dual time clock from) says
>> >that it helps if you point the antenna (apparently they just use ferrite
>> >rod antennas-just like in a cheap transistor radio-to recieve) towards
>> >Fort Collins, which is due east of my QTH.
>>
>> Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
>> On AM car radios, tape recorders, sometimes even rice cookers.
>> --scott
>
>I heard the LuaLuaLei transmitter a lot, but not WWVH, when I lived there.
>500kW or 1MW IIRC, somewhere around 24kHz.
>

That was a Navy transmitter, not NIST. I was stationed at Lualualei
for almost two years in the mid '70s. I wonder if it is still on the
air now that they have switched most of their circuits to satellite.

Bob McConnell, Ex-RM2 USN
N2SPP

4459. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 16:28:14 UTC
From: N8KDV <n8kdv@nospam.iserv.net>
Message-ID: <c3f72uino1@xuxa.iecc.com>
Source record: 98083
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Joseph Fenn wrote:

> How in the hell can the CLOCK detector tell any difference between
> the time signal from WWV or WWVH. They are both on exact same
> frequecies, the time tick is identical on both !!!!

Once again, the clock the individual wants plans for uses the signal from WWVB in Ft. Collins, Colorado on 60 kHz.

4460. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 16:28:41 UTC
From: Bob <newsgroups@furtawKN0WSPAMremoval.com>
Message-ID: <c3f73piqn1@xuxa.iecc.com>
Source record: 98084
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Maybe this will help with understanding:
http://www.boulder.nist.gov/timefreq/general/pdf/1383.pdf
Bob
"Joseph Fenn" <jfenn@lava.net> wrote in message
news:c3cpcm$3vs$1@xuxa.iecc.com...
> How in the hell can the CLOCK detector tell any difference between
> the time signal from WWV or WWVH. They are both on exact same
> frequecies, the time tick is identical on both !!!!
> Kokomo Joe
> WWVH on Kauai has a consistantly strong signal. Albeit at times
> is totally off the air several times in any given month.
>
>
> **
> * Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
> **
>
>
> On Wed, 17 Mar 2004, N8KDV wrote:
>
> >
> >
> > Scott Dorsey wrote:
> >
> > > tommyknocker <tomynokr@uucp.hell> wrote:
> > > >Forget about getting an atomic clock to set in Hawaii. The signal is
> > > >simply too weak. Atomic Time (who I bought my dual time clock from)
says
> > > >that it helps if you point the antenna (apparently they just use
ferrite
> > > >rod antennas-just like in a cheap transistor radio-to recieve)
towards
> > > >Fort Collins, which is due east of my QTH.
> > >
> > > Huh? WWVH in Lihue used to come in five and nine everywhere in
Hawaii.
> > > On AM car radios, tape recorders, sometimes even rice cookers.
> > > --scott
> >
> > That may be the case Scott, but the 'atomic clocks' they are speaking of
use
> > the WWVB signal from Ft. Collins, Colorado on 60 KHz to set their time

> > automatically.
> >
> > That signal may indeed not be propagating well enough to be of use in
Hawaii.
> >
> > Steve
> > Holland, MI
> > Drake R7, R8 and R8B
> >
> > http://www.iserv.net/~n8kdv/dxpage.htm
> >
> >
> >
> >
>

4461. Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 16:46:23 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-C908B3.10462319032004@newssvr24-ext.news.prodigy.com>
Source record: 98086

I am having fits with my old Ham IV control head readings. The controls (CCW and CW) work but the meter is flakey. I tried the Cal procedure int he manual but that does not seem to work.

Regarding the manual is is useless on the purpose of the Calibrate control. I know it has an IN and OUT position and should be used to set the meter in the full CW postion.

What is the 'In' position and what is the 'Out' position?

It does not seem to have a great deal of control over the needle. The needles seem to like staying in the far right South postion.

Help!

Dick - AA5VU

4462. Question about Full Wave loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 16:48:24 UTC
From: HaveHFWillTravel <havhfwilltravel@anyone.net>
Message-ID: <c88m50lpb8ah393oo1flillsm1elqcl1rm@4ax.com>
Source record: 98090

I am buying a house with 1.25 wooded acres. I want to put a loop skywire for 160-80 meters. I am hoping to get it up 60 feet in the trees. Anyways I noticed on the radiation graphic that a major lobe of the antenna is 90 degrees from horizontal. Question is if I slope the antenna, will it lower the 90 degree lobe to to something that sends rf out instead of straight up and should it lower the take-off angle assuming the soil conductivity is good. KG4CYB

4463. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 16:50:34 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <uxF6c.28996$%06.10908@newsread2.news.pas.earthlink.net>
Source record: 98087

Hi again -

I no longer aspire to cornering you into an unbiased comparison.
I can see you're much too crafty for that! ;-)

But I don't want you to think I'm easily fooled, either.
So a couple more comments below...

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote
in message news:405a790c_7@corp.newsgroups.com...

> Old Ed wrote:
> > 2. If trees are assumed to be available to support dipoles,
> > then trees could be used to support a monopole.
>
> But trees absorb energy from the monopole which has no gain
> to waste. Trees absorb virtually no energy from a dipole.
>
OK, we need to assume that you have a couple of trees that
are 130+ feet apart, because you say you are using them to
support a dipole of that length.

So instead of a "T" between the trees where the top is a
dipole and the vertical element is the feedline, why not
a "T" between the trees where the top is a support rope
and the vertical element is a monopole? Do you think
a couple of trees 65+ feet away from said monopole
would suck up all its radiated energy? And if so, why
wouldn't they clobber the much closer, high-impedance
ends of the dipole?

BTW, I repeat that I'm NOT trying to convert you to a
different antenna type; I'm merely advocating some
technical objectivity when making comparisons.

> > 3. As to the gain figure, you seem to assume that the
> > dipole is always operating at the peak of one of its
> > lobes, and never has to operate in one of its nulls.
>
> I never operate my antenna in a null.

This is quite a remarkable feat! Do you only talk to a list
of favored stations that are known to lie in your lobes?
Or do you refuse to answer a list of stations that lie in your
nulls? (Or if they're DEEP in a null, you might be unaware
of their existence, I suppose.)

> I also don't drive my
> pickup one mile per hour even if I only average driving it
> one hour per day. Seems by your logic, I should always walk
> since I can walk faster than the average speed of my pickup
> over any 24 hour period. :-)

I'm afraid this analogy is so strained and inapplicable that
it doesn't really need a response.

> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4464. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 16:56:32 UTC
From: aRKay <noemail@foobar.com>
Message-ID: <noemail-1642FE.10563219032004@newssvr24-ext.news.prodigy.com>
Source record: 98088

I just noticed that by cycling the Calibrate switch On/Off the meter
sometimes jumps to the 'correct' location. It stays a few seconds then
fall back to the right.

Maybe someone has seen this before????

Dick - AA5VU

In article
<aa5vuNOSPAM-C908B3.10462319032004@newssvr24-ext.news.prodigy.com>,
"Dick, AA5VU" <aa5vuNOSPAM@arrl.net> wrote:

> I am having fits with my old Ham IV control head readings. The controls
> (CCW and CW) work but the meter is flakey. I tried the Cal procedure int
> he manual but that does not seem to work.
>
> Regarding the manual is is useless on the purpose of the Calibrate
> control. I know it has an IN and OUT position and should be used to set
> the meter in the full CW postion.
>
> What is the 'In' position and what is the 'Out' position?
>
> It does not seem to have a great deal of control over the needle. The
> needles seem to like staying in the far right South postion.
>
> Help!
>
> Dick - AA5VU

4465. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 16:59:14 UTC
From: richardharrison@webtv.net
Message-ID: <22243-405B26E2-1119@storefull-3253.bay.webtv.net>
Source record: 98089

Old Ed wrote:
"---trees could be used to support a monopole."

Yes, but in supporting a monopole, the tree is more or less parallel, near, and lossy. Horizontal dipoles are somewhat perpendicular to trees which are likely to be in the nulls of the dipole pattern.

Shortwaves are propagated effectively by bounce at the correct angle off the ionosphere. Propagation of shortwaves along the earth`s surface is seriously attenuated.

Vertical antennas up to 5/8-wavelength launch their maximum signal along the earth`s surface, not good for skywave propagation in most cases. It works at sea where conductivity is excellent and over much greater distance than over land, so that not all shortwave tangential energy is necessarily wasted.

Horizontal antennas produce no tangential aignal along highly conducting earth. The reflection at near zero elevation is equal and opposite in polarity and it cancels.

High 1/2-wave dipoles (between 1/4-wave and 1/2-wave high) have gains at some angle between zero and 90-degrees as compared with the same dipole in free-space.

A 1/2-wave dipole between 1/4-wave and 1/2-wave above good ground can have a dB or two gain at some elevation angle between 15 and 30-degrees. It`s not much, but it`s not a loss. Even over poor ground, the free-space 1/2-wave dipole characteristic is likely available at the useful elevation angle.

I worked for years in shortwave broadcasting and have yet to see any facility which employed vertical transmitting antennas. I`ve heard there are some verticals, but when serious investment is professionally made in shortwave transmitting antennas it is nearly always made in the horizontally polarized variety.

Best regards, Richard Harrison, KB5WZI

4466. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 17:24:57 UTC
From: Dave <noone@nowhere.com>
Message-ID: <o6qdnTpLmPNoscbdRVn-gw@crocker.com>
Source record: 98091

the 'in' position is the calibration position. you press it in, turn the knob to set the needle to the right side south stop, then release the button. some models had a knob that locked in the 'in' position so you pressed it in and released it to engage the calibrate circuit then pressed again and released to turn it off.

"Dick, AA5VU" <aa5vuNOSPAM@arrl.net> wrote in message news:aa5vuNOSPAM-C908B3.10462319032004@newssvr24-ext.news.prodigy.com...
> I am having fits with my old Ham IV control head readings. The controls
> (CCW and CW) work but the meter is flakey. I tried the Cal procedure int
> he manual but that does not seem to work.
>
> Regarding the manual is is useless on the purpose of the Calibrate
> control. I know it has an IN and OUT position and should be used to set
> the meter in the full CW postion.
>
> What is the 'In' position and what is the 'Out' position?
>
> It does not seem to have a great deal of control over the needle. The
> needles seem to like staying in the far right South postion.
>
> Help!
>
> Dick - AA5VU

4467. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 17:42:03 UTC
From: tdonaly@aol.com
Message-ID: <20040319124203.01431.00000037@mb-m13.aol.com>
Source record: 98092

Richard Harrison wrote,
>
>I worked for years in shortwave broadcasting and have yet to see any
>facility which employed vertical transmitting antennas. I`ve heard there
>are some verticals, but when serious investment is professionally made
>in shortwave transmitting antennas it is nearly always made in the
>horizontally polarized variety.
>
>Best regards, Richard Harrison, KB5WZI
>

Medium and Long Wave, on the other hand...
73,
Tom Donaly, KA6RUH

4468. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 17:43:58 UTC
From: aRKay <noemail@foobar.com>
Message-ID: <noemail-AEFD25.11435719032004@newssvr22-ext.news.prodigy.com>
Source record: 98093

Dave,

I pushed it IN then out and it snapped toe the antenna location then
fell back to South. I messed with Cal switch and every once in a while
it would snap back to the corret psition... then fall back to South.

Something is wrong

Dick - AA5VU

In article <o6qdnTpLmPNoscbdRVn-gw@crocker.com>,
"Dave" <noone@nowhere.com> wrote:

> the 'in' position is the calibration position. you press it in, turn the
> knob to set the needle to the right side south stop, then release the
> button. some models had a knob that locked in the 'in' position so you
> pressed it in and released it to engage the calibrate circuit then pressed
> again and released to turn it off

4469. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 17:45:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405b31e9_2@127.0.0.1>
Source record: 98094

Old Ed wrote:
> So instead of a "T" between the trees where the top is a
> dipole and the vertical element is the feedline, why not
> a "T" between the trees where the top is a support rope
> and the vertical element is a monopole?

Given that, I've gone to all the trouble of putting up a
dipole. Why would I choose to put up something inferior
to a dipole? Plus, with a vertical, I would have to lay
in a ground plane only to make my noise level 2 S-units
worse than with the dipole. Where's the ROI?

> Do you think
> a couple of trees 65+ feet away from said monopole
> would suck up all its radiated energy? And if so, why
> wouldn't they clobber the much closer, high-impedance
> ends of the dipole?

Because the trees then act as part of the end-hat circuit
which is a good thing.

>>I never operate my antenna in a null.
>
> This is quite a remarkable feat! Do you only talk to a list
> of favored stations that are known to lie in your lobes?

Yes, that's why I placed the lobes where they are.

> Or do you refuse to answer a list of stations that lie in your
> nulls?

I don't QSO with weak signals. Life is too short for QRP.

>>I also don't drive my
>>pickup one mile per hour even if I only average driving it
>>one hour per day. Seems by your logic, I should always walk
>>since I can walk faster than the average speed of my pickup
>>over any 24 hour period. :-)
>
> I'm afraid this analogy is so strained and inapplicable that
> it doesn't really need a response.

It's the same logic. You are arguing that the average radiation
pattern is what is important and not the directional gain while
it is performing useful work.

So to be consistent, you must also argue, that it is the average speed of my pickup that is important and not the speed while it is performing useful work.

Since the average gain of a beam is about equal to a vertical, do you advocate getting rid of all the beams? :-)
--
73, Cecil, W5DXP

4470. Looking for a Rohn H70 or H50 telescoping mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 17:51:56 UTC
From: DJboutit <Recordking@Hotmail.com>
Message-ID: <0rG6c.359$YX6.183@newssvr23.news.prodigy.com>
Source record: 98095

I am looking for a rohn h70 but a h50 telescoping mast will do. I am thinking about put the mast on the roof of my house in Houston to do some major dxing. who would I go about doin this and would their be any height restrictions.

4471. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 17:55:50 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c3fc7b$26mmd2$1@ID-225834.news.uni-berlin.de>
Source record: 98096

Vito wrote:

> Tarheel offered a motorized mount for RV's, etc, that moved their antennae
> from horizontal to vertical to allow mounting atop the moho.
> 73, K3DWW
>
> "Jeremy Salch" <salchNOSPAM@tblx.net> wrote
>
>> Lloyd Mitchell wrote:
>>
>> > go to http://www.tarheelantennas.com/
>> > >
>> Well.. I've got a screwdriver antenna.. www.kj7u.com i'm working on
>> ways to mount it that will work.

Oh I didn't realize they had the mount allready made. That is interesting
i'll check that out

--
Registered Linux User #346565

4472. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 17:57:50 UTC
From: derswede@aol.comspam.com
Message-ID: <20040319125750.00190.00000040@mb-m29.aol.com>
Source record: 98097

<< > Tarheel offered a motorized mount for RV's, etc, that moved their antennae
> from horizontal to vertical to allow mounting atop the moho.
> 73, K3DWW >>

Heard at the Charlotte Hamfest while watching the mount demo'ed.....

Ah, finally! VIAGRA for antennas!!

A

4473. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 18:03:47 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-1C9A62.09034819032004@netnews.worldnet.att.net>
Source record: 98098

In article <rlt6c.8629$F91.8390@lakeread05>,
"Jack Painter" <223bthp@cox.net> wrote:

> On private property, one may install any device, counter-signal, shielding,
> etc that prevent or otherwise render inoperable any other signal that enters
> or tries to leave that property.

Bzzzzt, Wrong, would you like to try again for what is behind Curtain
No.3?

In the USA, deployment of any "Active" device that transmits any
electromagnetic signal, without the appropriate License, would be
contrary to US Law. Specificly CFR47, as this is Regulated by the
Federal Communications Commission for all US Territory, Public or
Private.

Nice try though......

me

4474. Re: screwdriver for RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 18:15:49 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c3fdcp$26mmd2$2@ID-225834.news.uni-berlin.de>
Source record: 98100

Vito wrote:

> Tarheel offered a motorized mount for RV's, etc, that moved their antennae
> from horizontal to vertical to allow mounting atop the moho.
> 73, K3DWW
>
> "Jeremy Salch" <salchNOSPAM@tblx.net> wrote
>
>> Lloyd Mitchell wrote:
>>
>> > go to http://www.tarheelantennas.com/
>> > >
>> Well.. I've got a screwdriver antenna.. www.kj7u.com i'm working on
>> ways to mount it that will work.
on their site i see the pics of the mount.. but no info about it. maybe i'm
just missing it, but i can't seem to find it on the site

--
Registered Linux User #346565

4475. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 18:23:09 UTC
From: Bob Myers <nospamplease@address.invalid>
Message-ID: <hUG6c.1277$Gu4.361@news.cpqcorp.net>
Source record: 98099
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"KLM" <klmok88@yahoo.com> wrote in message
news:62ik50dct1tfjjsraq43maub22d74fauce@4ax.com...
> On Thu, 18 Mar 2004 16:53:28 -0800, "CW" <clinton.magers@comcast.net>
> wrote:
>
> >Do you know what the word ILLEGAL means? It is very obvious that you are
> >ignorant of the technical details and I am not going to be your
electronics
> >teacher. It is illegal for a reason.
> >
>
> Terrorists are using cellphones to kill and maim hundreds of people
> and you are maintaining that unrestrcted CP use is a god given
> inviolable right.

Nope. He's simply pointed out, quite correctly, that willful
interference with a legitimate radio service is very , very illegal,
and it is so for some very good reasons.

Besides, "jamming" cell phones is a stupid and ineffective idea anyway.
You can't reliably "jam" such things within a limited area (which is one
reason for the laws in question - to RELIABLY jam phones within an
area that IS under your legal control, you MUST create signals that will
cause interference OUTSIDE that area. Hence, don't do it.) A far
better plan is to simply shield the area in question from ANY RF
transmissions - easily and relatively cheaply done, and will cause no
legal or other hassles, or unintended interference. And you can still
bring in any RF-based info you DO want - TV, radio, etc. - via a
cable.

Bob M.

4476. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 18:23:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i5em50pivt4sf3ef94jqtjqjavrj3jf9ao@4ax.com>
Source record: 98102

On Fri, 19 Mar 2004 10:59:14 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Old Ed wrote:
>"---trees could be used to support a monopole."
>
>Yes, but in supporting a monopole, the tree is more or less parallel,
>near, and lossy. Horizontal dipoles are somewhat perpendicular to trees
>which are likely to be in the nulls of the dipole pattern.

Hi Richard,

It is equally arguable that trees. being at the distal, high potential
ends of a source, present inconvenient shorting paths to ground. They
are much larger than any expected dipole support by being very wide,
and randomly forked - dare I say a fractal load?

73's
Richard Clark, KB7QHC

4477. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 18:23:54 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-023AAE.09235419032004@netnews.worldnet.att.net>
Source record: 98103
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In article <7199d521.0403181757.7ab27279@posting.google.com>,
Captain794@yahoo.com (The Captain) wrote:

> Dave Shrader <david.shrader@comcast.net> wrote in message
> news:<Xu36c.33004$po.292953@attbi_s52>...
> > John Michael Williams wrote:
> >
> > SNIP
> > >
> > > However, the first radios transmitted
> > > sparks, so in principle it should be possible to
> > > transmit near a long wire separated by a small gap from
> > > ground or another wire and get a small spark. So, I
> > > decided to try an experiment.
> > >
> > SNIP
> >
> > There is one other potential source for a spark that you did not
> > investigate.
> >
> > A make/break contact in a switch causes sparks when opened. The US
> > Military specifies special shielded switches for their explosive, gas
> > vapor, etc., environments.
> >
> > So, it is possible that pressing the PTT or the ON/OFF switch causes the
> > necessary spark. Remember the Apollo ground fire. A switch/spark caused
> > an oxygen explosion.
>
> Actually, anyone who has worked in the offshore oil industry will be
> familiar with the concept of intrinsic safety. This requires that no
> electronic instrument shall be able to ignite a mixture of air and
> inflamable vapour or gas. All handheld radios used on rigs are
> intrinsically safe, making them far more expensive than the standard
> variety.
>
> I very much doubt that cell phones are buit to intrinsicly safe
> standards, and under those circumstances I would certainly not feel
> safe near someone yacking while filling.
>
> So, an interesting querstion is; does your phone conform to UL
> requirements for intrinsic safety? And if not, why are you using it
> in an area where an explosive gas air mixture is possible?
>

> Cap

Actually the electronic portion of the Intrisically Safe Radio is
the same as the regular Radio of the same model. What is different is
the Battery and the Battery Connections. On an Intriscally Safe Radio
the Battery and Battery connections are Specifically Designed so as
to not spark when changed, while the radio is turned on. This design
change isn't really that expensive, but the testing that is required to
receive the "Intrinsically Safe" Lable, is extremely expensive.

me

4478. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 18:28:34 UTC
From: Bob Myers <nospamplease@address.invalid>
Message-ID: <mZG6c.1279$Vp4.278@news.cpqcorp.net>
Source record: 98101
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"KLM" <klmok88@yahoo.com> wrote in message
news:mcfk505dkgl77pi8ev4t4mdkor9fvjtjof@4ax.com...
> Why not include a circuit in every cellphone that will cause the
> answer bell to ring when anyone carrying a cellphone crosses one of
> these interrogators. Maybe have the circuitry activate a different
> ring tone or ring pattern from the normal call ring. Its extremely
> short range and won't interefere with normal cellphone use.

Simple - again, the strong likelihood of interference with cell phones
AND other legitimate services. Plus the rather obvious fact that it
won't achieve the desired goal; once these things were placed into
service, it would be trivially easy for a "cell phone bomber" to disable
their phone's ringer. Or to cause a dummy ringer (the one that doesn't
have to do with the bomb) to go off and thus defeat the security.

You really should learn a bit more about how these things work before
proposing supposed "solutions" to the supposed "problem."

Bob M.

4479. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 18:43:21 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <ZzhjqLKJ9zWAFwbh@jmwa.demon.co.uk>
Source record: 98104
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that Me <Me@shadow.orgs> wrote (in <Me-023AAE.09235419032004@netnews.worldnet.att.net>) about 'CB Radios, Cellphones and Gasoline Vapor Ignition', on Fri, 19 Mar 2004:
>This design
>change isn't really that expensive, but the testing that is required to
>receive the "Intrinsically Safe" Lable, is extremely expensive.

There are strong suspicions in some countries that it is quite unjustifiably expensive, because only a few facilities offer it. More competition is required. Or a government investigation.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4480. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 19:05:08 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <EvH6c.29143$%06.8206@newsread2.news.pas.earthlink.net>
Source record: 98105

Where are my manners? I should have thanked you sooner, Danny.
THANKS!

73, Ed

"Dan Richardson @mendolink.com>" <<ChangeThisToCallSign> wrote in message
news:romk50t276aahu6s0mj1016tj8nfhs9jf8@4ax.com...
> On Fri, 19 Mar 2004 00:06:28 GMT, "Old Ed"
> <eseniorsR-E-M-O-V-E@earthlink.net> wrote:
>
> >Hi Danny -
> >
> >Thank you very much for your contribution here!
> >Any chance you could run another 360 azimuth cut
> >at 26 degrees elevation?
> >
> >TNX es 73, Ed
>
> Sure Ed, however as you are comparing the dipole to a monopole I also
> modeled that. The monopole was resonated at 10.125 MHz. Using 16
> ?-wave in length buried 5" deep. The maximum elevation takeoff angle
> reported by EZNEC/pro using the NEC4 engine was 27?.
>
> Here are the results for average gain at 27? EL.
>
> Monopole -1.11 dBi
> Cecil's dipole 1.596 dBi
>
> 73
> Danny
>

4481. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 19:05:08 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <EvH6c.29144$%06.5680@newsread2.news.pas.earthlink.net>
Source record: 98106

Hi Richard -

Comments below...

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:22243-405B26E2-1119@storefull-3253.bay.webtv.net...
> Old Ed wrote:
> "---trees could be used to support a monopole."
>
> Yes, but in supporting a monopole, the tree is more or less parallel,
> near, and lossy. Horizontal dipoles are somewhat perpendicular to trees
> which are likely to be in the nulls of the dipole pattern.
>
The false assumption here is the qualifier "near." If you were worried
about tree proximity, you could place the trees arbitrarily far from the
monopole, by using the "T" support I described in my response to Cecil.

As to the nice summary of ARRL handbook data that you provide in the
following paragraphs, I am aware of it, and I do not take issue with it.

My point in responding to Cecil was to introduce some OBJECTIVITY
into the vertical/horizontal comparisons. I was NOT trying to convince
anyone they should switch antennas, or that verticals solved all problems.

73, Ed

> Shortwaves are propagated effectively by bounce at the correct angle off
> the ionosphere. Propagation of shortwaves along the earth`s surface is
> seriously attenuated.
>
> Vertical antennas up to 5/8-wavelength launch their maximum signal along
> the earth`s surface, not good for skywave propagation in most cases. It
> works at sea where conductivity is excellent and over much greater
> distance than over land, so that not all shortwave tangential energy is
> necessarily wasted.
>
> Horizontal antennas produce no tangential aignal along highly conducting
> earth. The reflection at near zero elevation is equal and opposite in
> polarity and it cancels.
>
> High 1/2-wave dipoles (between 1/4-wave and 1/2-wave high) have gains at
> some angle between zero and 90-degrees as compared with the same dipole
> in free-space.
>
> A 1/2-wave dipole between 1/4-wave and 1/2-wave above good ground can
> have a dB or two gain at some elevation angle between 15 and 30-degrees.

> It`s not much, but it`s not a loss. Even over poor ground, the
> free-space 1/2-wave dipole characteristic is likely available at the
> useful elevation angle.
>
> I worked for years in shortwave broadcasting and have yet to see any
> facility which employed vertical transmitting antennas. I`ve heard there
> are some verticals, but when serious investment is professionally made
> in shortwave transmitting antennas it is nearly always made in the
> horizontally polarized variety.
>
> Best regards, Richard Harrison, KB5WZI
>

4482. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 19:05:09 UTC
From: Old Ed <eseniorsR-E-M-O-V-E@earthlink.net>
Message-ID: <FvH6c.29145$%06.27993@newsread2.news.pas.earthlink.net>
Source record: 98107

This will be my last hurrah in this sub-thread, and
then I'll go into bandwidth conservation mode....

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:405b31e9_2@127.0.0.1...
> Old Ed wrote:
> > So instead of a "T" between the trees where the top is a
> > dipole and the vertical element is the feedline, why not
> > a "T" between the trees where the top is a support rope
> > and the vertical element is a monopole?
>
> Given that, I've gone to all the trouble of putting up a
> dipole. Why would I choose to put up something inferior
> to a dipole? Plus, with a vertical, I would have to lay
> in a ground plane only to make my noise level 2 S-units
> worse than with the dipole. Where's the ROI?
>
I will interpret your subject change here as conceding
the point I was trying to make.

> > Do you think
> > a couple of trees 65+ feet away from said monopole
> > would suck up all its radiated energy? And if so, why
> > wouldn't they clobber the much closer, high-impedance
> > ends of the dipole?
>
> Because the trees then act as part of the end-hat circuit
> which is a good thing.
>
This is somewhere between incoherent and grasping at
straws, so again, I will consider the point made.

> >>I never operate my antenna in a null.
> >
> > This is quite a remarkable feat! Do you only talk to a list
> > of favored stations that are known to lie in your lobes?
>
> Yes, that's why I placed the lobes where they are.
>
> > Or do you refuse to answer a list of stations that lie in your
> > nulls?
>
> I don't QSO with weak signals. Life is too short for QRP.
>
Great, this is progress... we now know your ground rules!

But I assume you will acknowledge that there are quite a
few other amateur stations that want to be unrestricted in
azimuth.

> >>I also don't drive my
> >>pickup one mile per hour even if I only average driving it
> >>one hour per day. Seems by your logic, I should always walk
> >>since I can walk faster than the average speed of my pickup
> >>over any 24 hour period. :-)
> >
> > I'm afraid this analogy is so strained and inapplicable that
> > it doesn't really need a response.
>
> It's the same logic. You are arguing that the average radiation
> pattern is what is important and not the directional gain while
> it is performing useful work.
>
> So to be consistent, you must also argue, that it is the average
> speed of my pickup that is important and not the speed while it
> is performing useful work.
>
Sorry, this didn't get any better. It's still nonsense, as an analogy.

> Since the average gain of a beam is about equal to a vertical,
> do you advocate getting rid of all the beams? :-)

No, not all of them... only the ones that need to cover 360 degrees
azimuth, and don't rotate. 8-)

73 es QRT, Ed

> --
> 73, Cecil, W5DXP
>

4483. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 19:14:34 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <67mdnemqi6AB28bdRVn-jw@amaonline.com>
Source record: 98108

Hi,

Check the 1/8 amp "meter" fuse inside the control unit?

de ku5s

--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.
"Dick, AA5VU" <aa5vuNOSPAM@arrl.net> wrote in message
news:aa5vuNOSPAM-C908B3.10462319032004@newssvr24-ext.news.prodigy.com...
> I am having fits with my old Ham IV control head readings. The controls
> (CCW and CW) work but the meter is flakey. I tried the Cal procedure int
> he manual but that does not seem to work.
>
> Regarding the manual is is useless on the purpose of the Calibrate
> control. I know it has an IN and OUT position and should be used to set
> the meter in the full CW postion.
>
> What is the 'In' position and what is the 'Out' position?
>
> It does not seem to have a great deal of control over the needle. The
> needles seem to like staying in the far right South postion.
>
> Help!
>
> Dick - AA5VU

4484. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 19:17:20 UTC
From: panteltje@yahoo.com
Message-ID: <d75ca6e4.0403191117.d586791@posting.google.com>
Source record: 98109
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

KLM <klmok88@yahoo.com> wrote in message
news:<f4ck5090kfkchrdf0rrjj7o4nl9v1v9oqa@4ax.com>...
> On Thu, 18 Mar 2004 13:00:55 -0800, "CW" <clinton.magers@comcast.net>

> And cellphone signal blocking is localized, short range, same as WiFi.
> Put up a sign to that effect in your business premise. Those who feel
> they must have their cellphone access 24/7 can always step outside
> the door or avoid the place. That business will survive because there
> are a miniscule number of 24/7 cellphone freaks.
>
> Anyway the use of cellphones while driving is banned in many states in
> the US and worldwide. What is so different in banning their use in
> selected public places. The only difference is that signal blocking
> is applied universally in that defined building area, and without
> having intrusive checks being made on anyone to effect compliance.

To prevent the use of cellphones ANYWHERE kills an industry, I want to
be able to use it everywhere, OK handsfree in a car.
If the terrorist intention is to damage industry, economy, then yes.
Else live with the danger.
JP

4485. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 19:17:38 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405b4788_2@127.0.0.1>
Source record: 98110

Old Ed wrote:
> I will interpret your subject change here as conceding
> the point I was trying to make.

I thought Danny's calculations had already conceded
your point.

>>Because the trees then act as part of the end-hat circuit
>>which is a good thing
>
> This is somewhere between incoherent and grasping at
> straws, so again, I will consider the point made.

Trees are part of the world that provides capacitance
for the ends of dipoles.

> Great, this is progress...

No, this is humor.

> But I assume you will acknowledge that there are quite a
> few other amateur stations that want to be unrestricted in
> azimuth.

Of course, that's why I suggested the two 24 foot wires hanging
down from the ends of the 130 ft. dipole as a way to cause the
dipole to beat the vertical in any and all directions and by
as much as 6 dB in four directions.
--
73, Cecil, W5DXP

4486. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 19:21:29 UTC
From: Richard Henry <rphenry@home.com>
Message-ID: <YKH6c.19093$uh.8238@fed1read02>
Source record: 98111
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c3dcokbfn1@titan.btinternet.com...
> I AM old enough to remember the pre-war and the phoney-war impressions of
> the population of the cities of Birmingham and Coventry about the
> capabilities of the Luftwaffer.
>
> It was "They'll never get this far."
>
> At the same time the citizens of Cologne, Hamburg, Berlin and Dresden were
> saying much the same thing.

Whath they found out was that they don't have to ALL get through.

4487. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 20:18:54 UTC
From: Terry Given <the_domes@xtra.co.nz>
Message-ID: <L4q6c.9357$rw6.186585@news.xtra.co.nz>
Source record: 98159
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Dirk Bruere at Neopax" <dirk@neopax.com> wrote in message
news:c3d1ra$266002$1@ID-120108.news.uni-berlin.de...
>
>
> "Jan Panteltje" <panteltje@yahoo.com> wrote in message
> news:d75ca6e4.0403180818.2541c52b@posting.google.com...
> > "Terry Given" <the_domes@xtra.co.nz> wrote in message
> news:<MJc6c.8716$rw6.174739@news.xtra.co.nz>...
> >
> > > a better technique would be for the israeli government to pull their
> heads
> > > in, and start acting like humans instead of nazis (deliberate
> comparison - I
> > > am continually astounded that this behaviour comes from a people who
> > > survived the Holocaust - surely the darkest moment in human history).
>
> Actually, the Tasmanian natives might consider their plight to be somewhat
> worse.
> Assuming that they still existed, of course.
>

dont they have a nice monument though?

4488. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 20:40:42 UTC
From: Jeff <jeff@nospam.com>
Message-ID: <Xns94B19F6FE3AF8jeffnospamcom@199.45.49.11>
Source record: 98112
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Bob Myers" <nospamplease@address.invalid> wrote in
news:hUG6c.1277$Gu4.361@news.cpqcorp.net:

> "KLM" <klmok88@yahoo.com> wrote in message
> news:62ik50dct1tfjjsraq43maub22d74fauce@4ax.com...
>> On Thu, 18 Mar 2004 16:53:28 -0800, "CW" <clinton.magers@comcast.net>
>> wrote:
>>
>> >Do you know what the word ILLEGAL means? It is very obvious that
>> >you are ignorant of the technical details and I am not going to be
>> >your
> electronics
>> >teacher. It is illegal for a reason.
>> >
>>
>> Terrorists are using cellphones to kill and maim hundreds of people
>> and you are maintaining that unrestrcted CP use is a god given
>> inviolable right.
>
> Nope. He's simply pointed out, quite correctly, that willful
> interference with a legitimate radio service is very , very illegal,
> and it is so for some very good reasons.
>
> Besides, "jamming" cell phones is a stupid and ineffective idea
> anyway. You can't reliably "jam" such things within a limited area
> (which is one reason for the laws in question - to RELIABLY jam phones
> within an area that IS under your legal control, you MUST create
> signals that will cause interference OUTSIDE that area. Hence, don't
> do it.) A far better plan is to simply shield the area in question
> from ANY RF transmissions - easily and relatively cheaply done, and
> will cause no legal or other hassles, or unintended interference. And
> you can still bring in any RF-based info you DO want - TV, radio, etc.
> - via a cable.
>
> Bob M.
>

Spot on, thats whats used where possible in sensitive buildings in the
UK.

The use of CP's for these purposes has been going on for 30 years at
least. It's not new and various means to counter it have been tried with
various success. There's a tendancy to assume these people are stupid as
well as socially corrupt. Not true. The IRA for instance used cp's in the

70's and 80's bombing of London and the mortar attack on 10 Downing street while the cabinet was in session. The IRA's technique was to use two cell phones and a sequence of calls to arm and trigger the weapon. Once the bomb was placed and the phone was on and receiving signal the bomb was also set to go off if the phone was switched off or the signal lost - as it would be if the area was 'jammed'.

Jamming the phone service could actually set the thing off where the planter wanted it to be. Not a good idea.

As an aside, given that Bush has started his war on terrorism, terrorists and all that support them, does that mean he's going to pursue all those who have and still do support the IRA and 'the cause' who where almost entirely funded from the US?

4489. Re: Question about Full Wave loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 20:49:38 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <405B5CE2.8AD57111@cwis.net>
Source record: 98113

'CYB',
A major lobe of a horizontal loop is 'straight up', but that
doesn't
mean that all the RF is going that way by any means, and a high
radiation
angle isn't always 'bad'. 'Tilting' a horizontal loop does
change the
direction of the radiation pattern, but because of all the
things that
affect the radiation pattern, where it actually 'goes' is very
hard (if
not impossible) to predict. Best advice? Try it and see what
happens.
I'm using a horizontal 80 meter loop on a city lot. I've had
no more
than the 'usual' problems working a WAS (several times), and all
the DX
I cared to 'mess' with. A loop has several good and bad
characteristics,
just like any other antenna, and what works well 'here' may not
work well
'there' (just like any other antenna). I just wish the thing
was at 60
feet instead of 20 (LOL)! A characteristic that I like is that
when fed
with ladder line through a tuner, (I know Cecil, but I've got
the tuner),
it works almost all bands, sort of a problem loading on 15
meters, but I
don't use 15 anyway.
Good luck...
'Doc

4490. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 20:59:54 UTC
From: richardharrison@webtv.net
Message-ID: <3034-405B5F4A-139@storefull-3257.bay.webtv.net>
Source record: 98114

Reg Edwards wrote:
"At the same time the citizens of Cologne, Hamburg, Berlin and Dresden were saying much the same thing."

Yes. Hermann Goering boasted early in the war that his name was mud if bombs fell on Berlin.

Later in the war as Hermann scurried for shelter he was heard introducing himself as "Herr Mud".

Best regards, Richard Harrison, KB5WZI

4491. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 22:39:33 UTC
From: panteltje@yahoo.com
Message-ID: <d75ca6e4.0403191439.764052bc@posting.google.com>
Source record: 98115
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

> Forget it. You can't fight terrorism. You can only take away
> the anger/frustration that *feeds* it, which takes time and
> a lot of wisdom. A roll of duct-tape isn't going to fix anything.
Those are very wise words.
Thats *IS* exactly how it is.
Unfortunatly the big terrorist Bush wants to have war everywhere,
so he can sell weapons, and will make unrest everywhere.
His men are now in Siria, perhaps also in Taiwan, Bush was talking today
of 'world is at war' well, that for sure is what he is directing every
possible energy towards.
So my hopes of this realization being realized so to speak are not great.
Only chance we have, in our lives, is to enjoy this moment given to us,
NOW, there are no guarantees for the future, and the past is gone.
There are however people in this world trying to make people realize
that peace in an inner experience, your own choice so to speak, and
atainable, for example my Guru www.maharaji.org.
So, as long as there is a way out, we are free :-)
JP

4492. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 22:41:32 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403191441.13f7be9e@posting.google.com>
Source record: 98116
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Captain794@yahoo.com (The Captain) wrote in message
news:<7199d521.0403181757.7ab27279@posting.google.com>...
> Dave Shrader <david.shrader@comcast.net> wrote in message
news:<Xu36c.33004$po.292953@attbi_s52>...
> > John Michael Williams wrote:
> >
> > SNIP
> > >
> > > However, the first radios transmitted
> > > sparks, so in principle it should be possible to
> > > transmit near a long wire separated by a small gap from
> > > ground or another wire and get a small spark. So, I
> > > decided to try an experiment.
> > >
> > SNIP
> >
> > There is one other potential source for a spark that you did not
> > investigate.
> >
> > A make/break contact in a switch causes sparks when opened. The US
> > Military specifies special shielded switches for their explosive, gas
> > vapor, etc., environments.
> >
> > So, it is possible that pressing the PTT or the ON/OFF switch causes the
> > necessary spark. Remember the Apollo ground fire. A switch/spark caused
> > an oxygen explosion.
>
> Actually, anyone who has worked in the offshore oil industry will be
> familiar with the concept of intrinsic safety. This requires that no
> electronic instrument shall be able to ignite a mixture of air and
> inflamable vapour or gas. All handheld radios used on rigs are
> intrinsically safe, making them far more expensive than the standard
> variety.
>
> I very much doubt that cell phones are buit to intrinsicly safe
> standards, and under those circumstances I would certainly not feel
> safe near someone yacking while filling.
>
> So, an interesting querstion is; does your phone conform to UL
> requirements for intrinsic safety? And if not, why are you using it
> in an area where an explosive gas air mixture is possible?
>
> Cap

Actually, a former maritime safety engineer Emailed me
about this. However, he could not locate the law or regulation
which defines "intrinsic safety". If you can find a law
or regulation governing operation of a transmitter around
a gas pump, please post it.

I have no idea how UL testing would pertain to a battery operated
device incapable, itself, of electrocuting anyone. However, the
battery eliminator which I have (but did not use in the
experiment I described) is UL approved.

On the safety issue, the same engineer also told me he was able
to create visible sparks with a 100 W transmitter, holding
the antenna near a piece of metal. However, for the following
reason, I suspect the sparks were because his transmitter was
earth-grounded:

The handheld CB I used had a completely insulated rubber antenna
and of course had no ground connection. I replaced the rubber
antenna with a telescoping metal one. I then keyed the transmit
button (as above) in the dark, while trying to get a spark by
bringing the tip near a 1 m x 1 m aluminum 1/4 in plate (ungrounded).
I could see nothing, although touching the metal caused the CB's
power out bar to indicate a drop in power. The plate should have
been an effective AC ground at ~27 MHz.

So, neither induction into a wire nor electrical direct contact
seems likely to make a visible spark, with a 5 W CB transmitter.

I would only expect a 100 mV or so spark anyway, which would be
hard to see.

So, I'm not convinced that a cell phone could cause a spark, either.

I agree that key closure sparks might be possible internal to
the device, and that neither it nor a cell phone would be likely
to have been designed to suppress a flash from such a source.

However, the issue I have tried to address here is a spark from
the RF, not from generic electrical causes. I don't doubt that
gasoline vapor is inflammable in a generic sense.

John
jwill@AstraGate.net
John Michael Williams

4493. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 22:44:19 UTC
From: panteltje@yahoo.com
Message-ID: <d75ca6e4.0403191444.25c1aff5@posting.google.com>
Source record: 98117
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Costas Vlachos" <c-X-vlachos@hot-X-mail.com> wrote in message
news:<c3er8t$69c$1@sparta.btinternet.com>...

> Yes, that is correct - at least that's what was said on the news channels
> here in the UK. The Spanish bombs were triggered by mobile phones set on
> alarm at 7:39am IIRC - the phones didn't even have to have SIM cards in
> them. No signal jamming equipment could have prevented them from going off.
>
> cheers,
> Costas
I ma not sure abou that other phone, in a backpack, it rang, and that
is
how they found it.
So it MUST have had a sim card.
When I heard that news, I knew they would get the guys in hours.
One look at that sim, and a look at the telco's logs, and you have the
whole network:-)
It proves these guys are really dumies in that stuff.
Nevertheless very very dangerous.
JP

4494. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 23:11:36 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <M6L6c.9938$F91.9269@lakeread05>
Source record: 98118

"Me" <Me@shadow.orgs> wrote in message
news:Me-1C9A62.09034819032004@netnews.worldnet.att.net...
> In article <rlt6c.8629$F91.8390@lakeread05>,
> "Jack Painter" <223bthp@cox.net> wrote:
>
> > On private property, one may install any device, counter-signal,
shielding,
> > etc that prevent or otherwise render inoperable any other signal that
enters
> > or tries to leave that property.
>
> Bzzzzt, Wrong, would you like to try again for what is behind Curtain
> No.3?
>
> In the USA, deployment of any "Active" device that transmits any
> electromagnetic signal, without the appropriate License, would be
> contrary to US Law. Specificly CFR47, as this is Regulated by the
> Federal Communications Commission for all US Territory, Public or
> Private.
>
> Nice try though......
>
> me

It doesn't help to reference code not properly cited. Then consider how the U.S. Attorney General (pick your year of political flavor) decides that the government will interpret specific circumstances of every federal case that is not well supported by existing case law.

Some broad-reaching statements exist in most federal statutes that cannot be applied to any individual circumstance, and broad language such as you paraphrased is not appropriate here either. The Federal government has never prosecuted anyone for jamming cellphone signals on private property, and probably never will. The FCC might confiscate equipment that was in the act of being illegally imported, illegally sold, used maliciously, or used for profit against individuals or the public. It's a different animal on private property, which you could learn something about before you rattle off statutes again. Unless there was a clear case of a property owner's interference outside the bounds of his property, there is no language in that monsterous animal of the Communications Act of 1933 that empowers the government to affect what you do on and "only on" your property with radio signals. Other laws would apply to something obtained illegally and are not the topic of discussion here.

Jack

4495. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 23:20:26 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405b8080$1_4@corp.newsgroups.com>
Source record: 97969
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jan Panteltje wrote:
>>Forget it. You can't fight terrorism. You can only take away
>>the anger/frustration that *feeds* it, which takes time and
>>a lot of wisdom. A roll of duct-tape isn't going to fix anything.
>
> Those are very wise words.
> Thats *IS* exactly how it is.

Actually, we fought nazi terrorism during WWII and won. Seems
to me it would be more appropriate to say: "The fight against
terrorism is a never ending war unless we take away the
anger/frustration that *feeds* it."
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4496. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-19 23:42:18 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <405B8557.5080402@frontiernet.net>
Source record: 97970

aRKay wrote:
> Dave,
>
> I pushed it IN then out and it snapped toe the antenna location then
> fell back to South. I messed with Cal switch and every once in a while
> it would snap back to the corret psition... then fall back to South.
>
> Something is wrong

...with the cal switch, probably. Possibly dirty contacts, try cycling the switch a dozen or so times, see if that helps. It might need a drop (and I mean just A DROP) of contact cleaner, after which cycle the switch a few times. The switch might need to be replaced.

Any other mechanical contacts, like the fuse (holder) mentioned? Are all the screws holding the wires nice and tight? Any broken wires?

Good Luck,
-W8LNA

4497. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 00:34:41 UTC
From: tdonaly@aol.com
Message-ID: <20040319193441.08910.00001676@mb-m13.aol.com>
Source record: 97971

Cecil wrote,
>
>Jan Panteltje wrote:
>>>Forget it. You can't fight terrorism. You can only take away
>>>the anger/frustration that *feeds* it, which takes time and
>>>a lot of wisdom. A roll of duct-tape isn't going to fix anything.
>>
>> Those are very wise words.
>> Thats *IS* exactly how it is.
>
>Actually, we fought nazi terrorism during WWII and won. Seems
>to me it would be more appropriate to say: "The fight against
>terrorism is a never ending war unless we take away the
>anger/frustration that *feeds* it."
>--
>73, Cecil http://www.qsl.net/w5dxp
>
>

Actually, we used terrorism against the Nazis, the Japanese, and
the Italians in WWII and were very satisfied with the results. We also
paid people like Osama Bin Laden to terrorize the Russians when they
invaded Afghanistan and were again very satisfied with the results.
Moreover, we were quite happy to see Saddam Hussein terrorize the Iranians and
the Kurds when it suited our interests. We were not pleased to have
these dogs turn on us, however, and so we're now engaged in a war on
"terrorism." That's code. What we mean by it is not that we're against
terrorism,
since we are capable of using it ourselves when the need arises,
but against being terrorized.
73,
Tom Donaly, KA6RUH

4498. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 01:00:44 UTC
From: John <jocjo_john@yooha.com>
Message-ID: <c3g53v016l@enews2.newsguy.com>
Source record: 97973

"Me" <Me@shadow.orgs> wrote in message
news:Me-1C9A62.09034819032004@netnews.worldnet.att.net...
> In article <rlt6c.8629$F91.8390@lakeread05>,
> "Jack Painter" <223bthp@cox.net> wrote:
>
> > On private property, one may install any device, counter-signal,
shielding,
> > etc that prevent or otherwise render inoperable any other signal that
enters
> > or tries to leave that property.
>
> Bzzzzt, Wrong, would you like to try again for what is behind Curtain
> No.3?
>
> In the USA, deployment of any "Active" device that transmits any
> electromagnetic signal, without the appropriate License, would be
> contrary to US Law. Specificly CFR47, as this is Regulated by the
> Federal Communications Commission for all US Territory, Public or
> Private.
>
> Nice try though......
>
> me

Actually, Title 47, Part 15, specifically allows unlicensed intentional
emissions. For example, in the AM broadcast band:

TITLE 47--TELECOMMUNICATION

CHAPTER I--FEDERAL COMMUNICATIONS COMMISSION

PART 15--RADIO FREQUENCY DEVICES--Table of Contents

Subpart C--Intentional Radiators

Sec. 15.219 Operation in the band 510-1705 kHz.

(a) The total input power to the final radio frequency stage
(exclusive of filament or heater power) shall not exceed 100 milliwatts.
(b) The total length of the transmission line, antenna and ground
lead (if used) shall not exceed 3 meters.
(c) All emissions below 510 kHz or above 1705 kHz shall be
attenuated at least 20 dB below the level of the unmodulated carrier.
Determination of compliance with the 20 dB attenuation specification may
be based on measurements at the intentional radiator's antenna output
terminal unless the intentional radiator uses a permanently attached

antenna, in which case compliance shall be deomonstrated by measuring
the radiated emissions.

This is only an example. Most of the spectrum is available for unlicensed
operation at low power, with some frequencies having higher emission limits
than others. Therefore, intentional unlicensed emissions are allowed by US
regulations. Read Part 15.

John

4499. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 01:01:54 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <7KM6c.10256$F91.6999@lakeread05>
Source record: 97972

"Me" <Me@shadow.orgs> wrote in message
news:Me-1C9A62.09034819032004@netnews.worldnet.att.net...
> In article <rlt6c.8629$F91.8390@lakeread05>,
> "Jack Painter" <223bthp@cox.net> wrote:
>
> > On private property, one may install any device, counter-signal,
shielding,
> > etc that prevent or otherwise render inoperable any other signal that
enters
> > or tries to leave that property.
>
> Bzzzzt, Wrong, would you like to try again for what is behind Curtain
> No.3?
>
> In the USA, deployment of any "Active" device that transmits any
> electromagnetic signal, without the appropriate License, would be
> contrary to US Law. Specificly CFR47, as this is Regulated by the
> Federal Communications Commission for all US Territory, Public or
> Private.
>
> Nice try though......
>
> me

It doesn't help to reference code not properly cited. Then consider how the U.S. Attorney General (pick your year of political flavor) decides that the government will interpret specific circumstances of every federal case that is not well supported by existing case law.

Some broad-reaching statements exist in most federal statutes that cannot be applied to any individual circumstance, and broad language such as you paraphrased is not appropriate here either. The Federal government has never prosecuted anyone for jamming cellphone signals on private property, and probably never will. The FCC might confiscate equipment that was in the act of being illegally imported, illegally sold, used maliciously, or used for profit against individuals or the public. It's a different animal on private property, which you could learn something about before you rattle off statutes again. Unless there was a clear case of a property owner's interference outside the bounds of his property, there is no language in that monsterous animal of the Communications Act of 1933 that empowers the government to affect what you do on and "only on" your property with radio signals. Other laws would apply to something obtained illegally and are not the topic of discussion here.

Jack

4500. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 01:53:10 UTC
From: dplatt@radagast.org
Message-ID: <105n9066uk7lf61@corp.supernews.com>
Source record: 97974

In article <c3g53v016l@enews2.newsguy.com>, John <jocjo_john@yooha.com> wrote:

>Actually, Title 47, Part 15, specifically allows unlicensed intentional
>emissions. For example, in the AM broadcast band:

#snip#

>This is only an example. Most of the spectrum is available for unlicensed
>operation at low power, with some frequencies having higher emission limits
>than others. Therefore, intentional unlicensed emissions are allowed by US
>regulations. Read Part 15.

True. However, Part 15 also states:

(b) Operation of an intentional, unintentional, or incidental
radiator is subject to the conditions that no harmful interference is
caused and that interference must be accepted that may be caused by
the operation of an authorized radio station, by another intentional
or unintentional radiator, by industrial, scientific and medical
(ISM) equipment, or by an incidental radiator.

(c) The operator of a radio frequency device shall be required to
cease operating the device upon notification by a Commission
representative that the device is causing harmful interference.
Operation shall not resume until the condition causing the harmful
interference has been corrected.

It seems to me that the "no harmful interference" clause would
put cellphone jammers outside the bounds of operation under Part 15.

As far as cellphone use on private property goes... it's certainly
within a property owner's right to declare, and enforce a "no
cellphone use" policy on that property. I cheer every time I see such
a notice.

It's also almost certainly within a property owner's right to include
some sort of perimeter/periphery shielding (passive, nonradiating
interference) to block cellphone signals from entering the property.

It's questionable, to me, whether the property owner would be able to
get away with using an active interferer, such as a jamming
transmitter. The user _might_ win in court, if it could be shown that
the jamming signal was strictly limited to the private property in
question. However, if enough of the jamming signal left the area to
[1] violate the radiated-power limits in Part 15, or [2] result in any
interference with cellphone use as little as a foot outside the
property line, the property owner would probably lose (IMO).

To keep the jamming signal strictly within the property lines, you'd
probably have to Faraday-shield the whole building... at which point
you probably wouldn't need the jamming transmitter.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4501. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 02:05:21 UTC
From: Terry Given <the_domes@xtra.co.nz>
Message-ID: <z9v6c.9604$rw6.190437@news.xtra.co.nz>
Source record: 98055
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"David Williams" <ddR_E_M_O_V_Ewilliams@northstate.net> wrote in message
news:105kp2pir1ld1e7@corp.supernews.com...
> > Changing laws and changing behaviour is *exactly* what they want. Fuck
> > them. The only thing you can do is report suspicious packages at train
> > stations etc. Other than that, just ignore the bastards and get on
> > with your life - if you do anything else they have won.
> >
> > If you're scared then they have won. That's why it's called TERRORism.
> > Look at the odds - if you're not scared of crossing the road you
> > shouldn't be scared of terrorism.
> >

hear hear

4502. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 02:06:04 UTC
From: Terry Given <the_domes@xtra.co.nz>
Message-ID: <eav6c.9606$rw6.190404@news.xtra.co.nz>
Source record: 98056
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:405a439f$1_3@corp.newsgroups.com...
> Terry Given wrote:
> > dont they have a nice monument though?
>
> Terry, what the heck are you doing awake at 2am tomorrow?
> --
> 73, Cecil http://www.qsl.net/w5dxp

questioning my own causality?

4503. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 02:10:18 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <g58n50h92ck461t4v4dv7332mm312evpj9@4ax.com>
Source record: 97975
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Fri, 19 Mar 2004 10:29:15 +0100, "Frank Bemelman"
<f.bemelmanx@planet.invalid.nl> wrote:

>Forget it. You can't fight terrorism. You can only take away
>the anger/frustration that *feeds* it, which takes time and
>a lot of wisdom. A roll of duct-tape isn't going to fix anything.

I agree with you 100%. But its an emotional subject I avoid
assiduously as any argument that says the Arabs and the Muslims have
good reason to feel the way they do will invite very angry flames from
a sector of shoot-em-all-first Americans. For crying out loud, even
Americans who hold this view (Arabs and Muslims have valid grievences)
have been intimidated into silence by their own side. Until the
American right wing come around to dealing with the root causes of
why people are willing to blow themselves up to take out their
enemies, suicide bombings will continue.

The issue is intimately linked with what's going on in Israel. Again
I refuse to get caught in the middle as one will be mauled by both
parties whatever one says. Was it Mercuto who said "Pox on both
Houses" in Romeo and Juliet? Exactly my feelings.

I originally used the term CP signal blocking and there were
off-the-shelf equipment openly available for sale some years ago. It
blocks signals to your establishment, eg. inside a restaurant, in
specific frequencies only I believe. I presume the signal blocker
does not block signals outside the premise for that would be clearly
illegal. It does not jam signals with dirty noise that intereferes
with the safe operation of other electronic equipment which is also
clearly illegal.

In any case the suggestion for cellphone signal free areas is just a
suggestion. Of course it wouldn't stop CP triggered bombings for they
will just plant them elsewhere. But at least there is a chance that
the more high value target - a very crowded place in a high profile
establishment - may be spared.

4504. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 02:24:21 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <2qan50troelhfhor96t5hmgq8o5bv4g9lu@4ax.com>
Source record: 97976

On Sat, 20 Mar 2004 01:53:10 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>In article <c3g53v016l@enews2.newsguy.com>, John <jocjo_john@yooha.com> wrote:
>
>>Actually, Title 47, Part 15, specifically allows unlicensed intentional
>>emissions. For example, in the AM broadcast band:
>
>#snip#
>
>>This is only an example. Most of the spectrum is available for unlicensed
>>operation at low power, with some frequencies having higher emission limits
>>than others. Therefore, intentional unlicensed emissions are allowed by US
>>regulations. Read Part 15.
>
>True. However, Part 15 also states:
>
> (b) Operation of an intentional, unintentional, or incidental
> radiator is subject to the conditions that no harmful interference is
> caused and that interference must be accepted that may be caused by
> the operation of an authorized radio station, by another intentional
> or unintentional radiator, by industrial, scientific and medical
> (ISM) equipment, or by an incidental radiator.
>
> (c) The operator of a radio frequency device shall be required to
> cease operating the device upon notification by a Commission
> representative that the device is causing harmful interference.
> Operation shall not resume until the condition causing the harmful
> interference has been corrected.
>
>It seems to me that the "no harmful interference" clause would
>put cellphone jammers outside the bounds of operation under Part 15.
>
>As far as cellphone use on private property goes... it's certainly
>within a property owner's right to declare, and enforce a "no
>cellphone use" policy on that property. I cheer every time I see such
>a notice.
>
>It's also almost certainly within a property owner's right to include
>some sort of perimeter/periphery shielding (passive, nonradiating
>interference) to block cellphone signals from entering the property.
>
>It's questionable, to me, whether the property owner would be able to
>get away with using an active interferer, such as a jamming

>transmitter. The user _might_ win in court, if it could be shown that
>the jamming signal was strictly limited to the private property in
>question. However, if enough of the jamming signal left the area to
>[1] violate the radiated-power limits in Part 15, or [2] result in any
>interference with cellphone use as little as a foot outside the
>property line, the property owner would probably lose (IMO).
>
>To keep the jamming signal strictly within the property lines, you'd
>probably have to Faraday-shield the whole building... at which point
>you probably wouldn't need the jamming transmitter.

If you should intentionally jam or cause a cell phone not to operate
by deliberately imposing shielding of the signals and someone with an
emergency tries to make a call, Guess who is going to get sued! And
probably win. Regardless of what federal laws are or are not violated.

73
Gary K4FMX

4505. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 02:24:31 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <405BAA8F.8ED602C5@shaw.ca>
Source record: 97977

"Dick, AA5VU" wrote:
>
> I am having fits with my old Ham IV control head readings. The controls
> (CCW and CW) work but the meter is flakey. I tried the Cal procedure int
> he manual but that does not seem to work.
>
> Regarding the manual is is useless on the purpose of the Calibrate
> control. I know it has an IN and OUT position and should be used to set
> the meter in the full CW postion.
>
> What is the 'In' position and what is the 'Out' position?
>
> It does not seem to have a great deal of control over the needle. The
> needles seem to like staying in the far right South postion.
>
> Help!
>
> Dick - AA5VU

There is a wirewound pot in the rotator unit which tends to get dirty
and can lead to erratic readings as well. You can clean it pretty well
with a little very fine grit paper, or contact cleaner. It is this
pot which tells the meter which direction the antenna is pointing. I
also saw one which opened up at one end and had to be replaced. That
way way back when, but you should be able to order the part. Replacement
is easy. If you do replace it, give it a little spray of contact
cleaner before reassembling the rotor unit.

Hope this helps...

Irv VE6BP

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP

Calgary, Alberta, Canada

4506. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 02:28:56 UTC
From: KLM <klmok88@yahoo.com>
Message-ID: <31an5052mcm16co2a8v1niblsqllrekba3@4ax.com>
Source record: 97978
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Fri, 19 Mar 2004 07:29:27 -0500, Active8 <reply2group@ndbbm.net>
wrote:

>
>We also don't want the thing detonating from the interrogation with
>people around and that's the biggest prob. You have to admit only
>one person at a time into the area. That's not too bad. It's common
>courtesy to stand back from someone using an ATM so maybe a few feet
>will do. Like in a bank line.

I did consider this objection. The interrogation will be done going
into a designated area (eg. sports stadium, train station where other
waiting to go in can wait some distance away. If I recall this
(checks going in) was done for the Superbowl and were not backpacks
and other bags banned? So have them enter a blast cage (to catch the
sharpnel mostly) or something like that for RFID interrogation. The
idea is not unlike the airport metal detector gate check. Once they
are in they are presumed to be safe.

So perhaps have similar "interrogation gates" for people entering a
pedestrians only shopping area, or to Times Square for the New Year
bash.

We are dealing with only one threat - CP triggered bombs. Therefore,
please think small and figure if it is worth doing. I am not trying
to protect the whole world.

4507. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 03:09:34 UTC
From: John <jocjo_john@yooha.com>
Message-ID: <c3gcli02gim@enews3.newsguy.com>
Source record: 97979

"Dave Platt" <dplatt@radagast.org> wrote in message
news:105n9066uk7lf61@corp.supernews.com...
> In article <c3g53v016l@enews2.newsguy.com>, John <jocjo_john@yooha.com>
wrote:
>
> >Actually, Title 47, Part 15, specifically allows unlicensed intentional
> >emissions. For example, in the AM broadcast band:
>
> #snip#
>
> >This is only an example. Most of the spectrum is available for unlicensed
> >operation at low power, with some frequencies having higher emission
limits
> >than others. Therefore, intentional unlicensed emissions are allowed by
US
> >regulations. Read Part 15.
>
> True. However, Part 15 also states:
>
> (b) Operation of an intentional, unintentional, or incidental
> radiator is subject to the conditions that no harmful interference is
> caused and that interference must be accepted that may be caused by
> the operation of an authorized radio station, by another intentional
> or unintentional radiator, by industrial, scientific and medical
> (ISM) equipment, or by an incidental radiator.
>
> (c) The operator of a radio frequency device shall be required to
> cease operating the device upon notification by a Commission
> representative that the device is causing harmful interference.
> Operation shall not resume until the condition causing the harmful
> interference has been corrected.
>
> It seems to me that the "no harmful interference" clause would
> put cellphone jammers outside the bounds of operation under Part 15.

No argument from me on that point. I was merely addressing the broad
statement that transmitting in the US on any frequency without a license is
not permitted. I was not implying that is okay to interfere with cellular
operation or, for that matter, any other service.

John

4508. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 04:28:49 UTC
From: Major Tom <NonValidAddress@comcast.net>
Message-ID: <5MP6c.47120$po.407615@attbi_s52>
Source record: 97980

"R. Scott" <washingtonhamTHREAD@yahoo.com> wrote in message
news:4057128A.FBB090F@yahoo.com...
> I had been using the Stretch Seal stuff. But Im replacing all my coax
> and noticed that the Feed for my Beam the seal was all cracked and had
> come apart in places (especially the braid side. Ive a can of Liquid
> tape and had thought of that.
>
> So how do you guys seal your outside coax ?
> --
> Rick N7HJ
> Everett, Washington
> Remove THREAD to reply.

One word: BUTYL

But instead of buying that "Coax-Seal" for 3 bucks for a small box,
I got a large roll "1/2 in diameter, over 10 feet long for
less than 8 bucks at an auto glass shop. Same stuff for a lot
cheaper. I bought a roll of this stuff back in 1990 and i'm still
into that same roll! Stuff lasts for decades.

4509. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 05:09:00 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <ztthixbrbvcj.dlg@news.individual.net>
Source record: 97981
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Sat, 20 Mar 2004 02:28:56 GMT, KLM wrote:

> On Fri, 19 Mar 2004 07:29:27 -0500, Active8 <reply2group@ndbbm.net>
> wrote:
>
>
>>
>>We also don't want the thing detonating from the interrogation with
>>people around and that's the biggest prob. You have to admit only
>>one person at a time into the area. That's not too bad. It's common
>>courtesy to stand back from someone using an ATM so maybe a few feet
>>will do. Like in a bank line.
>
> I did consider this objection. The interrogation will be done going
> into a designated area (eg. sports stadium, train station where other
> waiting to go in can wait some distance away. If I recall this
> (checks going in) was done for the Superbowl and were not backpacks
> and other bags banned? So have them enter a blast cage (to catch the
> sharpnel mostly) or something like that for RFID interrogation. The
> idea is not unlike the airport metal detector gate check. Once they
> are in they are presumed to be safe.
>
> So perhaps have similar "interrogation gates" for people entering a
> pedestrians only shopping area, or to Times Square for the New Year
> bash.

Simple. Drop precast, steel reinforced entryways in the street.
>
> We are dealing with only one threat - CP triggered bombs. Therefore,
> please think small and figure if it is worth doing. I am not trying
> to protect the whole world.

--
Best Regards,
Mike

4510. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 05:34:14 UTC
From: nick <nick_not_tesla@nospam.com>
Message-ID: <405BD7D4.4B8180E9@nospam.com>
Source record: 97982

shoreham ny located on north shore of long island.
the main building remains.http://www.teslascience.org/

nick

N1ir wrote:

> Yes, it is the Armstrong Tower. This was the main and test site for the long
> defunct Yankee Network of FM stations.
>
> It is discussed in some detail in the book: " Empire of the Air".
>
> Surely some Radio Club of America folks on this NG can drop us a few choice
> trivia nuggets on the Armstrong tower:-)
>
> Now, today's (related) quiz: where was (and what is located there now) the
> "Wardenclyffe ' tower of Tesla fame:-)?
> Hint: it's about 80 miles from the Alpine site.
>
> 73,
> Chip N1IR

4511. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 05:35:40 UTC
From: nick <nick_not_tesla@nospam.com>
Message-ID: <405BD82B.F23085D7@nospam.com>
Source record: 97983

local residents in the area want $ 2,500 per household to help pay for
the private lawyer and hire experts to fight the tower expansion plans.

mega buck homes are all around the tower site and they don't like it.

N1ir wrote:

> Yes, it is the Armstrong Tower. This was the main and test site for the long
> defunct Yankee Network of FM stations.
>
> It is discussed in some detail in the book: " Empire of the Air".
>
> Surely some Radio Club of America folks on this NG can drop us a few choice
> trivia nuggets on the Armstrong tower:-)
>
> Now, today's (related) quiz: where was (and what is located there now) the
> "Wardenclyffe ' tower of Tesla fame:-)?
> Hint: it's about 80 miles from the Alpine site.
>
> 73,
> Chip N1IR

4512. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 05:37:43 UTC
From: nick <nick_not_tesla@nospam.com>
Message-ID: <405BD8A6.834DE4AB@nospam.com>
Source record: 97984

hope no crazy guy tries to attack anyone, they can't phone for help on the cell

Bob Bob wrote:

> Gidday Jack
>
> I heard a story that in Australia's government house there are wide band
> jammers or large amounts of shielding installed so that mobile phones
> will not "go off" in the senate and house of reps chambers.
>
> Note that this would contravene the laws in Autralia on jamming devices.
>
> If that isnt an endorsment nothing is!
>
> Cheers Bob
>
> Jack Painter wrote:
> > Mostly one sea-lawyer's rant in this group, was that it is illegal to
> > interfere with any radio signal, etc. That opinion is absent of
> > understanding the intent of that law, or where it may be applied.
> >
> > On private property, one may install any device, counter-signal, shielding,
> > etc that prevent or otherwise render inoperable any other signal that enters
> > or tries to leave that property. There are reasonable exceptions, before the
> > crazies ask what about a 1,000' balloon with radar reflector in your
> > airspace right next to an airport. Get real. We're talking about a
> > restaurant owner's right to make his interior airspace incompatible with
> > cellular signals, and nobody can argue he doesn't have the right to do that,
> > with or without notifying you of it. It's a courtesy if he tells you, tough
> > luck if he doesn't.
> >
> > Similarly, the government regulates and (tries) to ensure the operability of
> > public communications while mitigating unnecessary or malicious
> > interference. Neither apply to a private property owner's right to have
> > cell-phone signals blocked on his property. If he invites the public, some
> > states might pass laws to require he notifies the public of that blockage,
> > but neither is it the public's right to assume that is so. A locality could
> > also decide it will prevent cell signals during any venue that takes place
> > on property it owns or leases. It's reasonable, it's "legal", and it's
> > happening. Before long, somebody will concoct a way to beat those blockers,
> > probably by a jam-resistant receiver card that plugs into the phone's
> > antenna. Then you'll have to check your gun and your cellphone with the
> > maitri d'. ;-)
> >
> > Jack

> > Virginia Beach
> >
> >

4513. TET TE23M Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 07:15:43 UTC
From: Denis <vk3bgsnospam@yahoo.com.au>
Message-ID: <6orn501cf6d114q02jgs1n95pcadpndi1b@4ax.com>
Source record: 97985

I am looking for information from anybody who has used or is using one
these antennas.
Any comments about performance in particular wuld be appreciated.
73 de Denis
VK3BGS

--
Remove "NO SPAM" to reply

--
Remove "NO SPAM" to reply

4514. Gamma Match

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 09:04:48 UTC
From: stylzmovements2000@yahoo.com
Message-ID: <51eca3ef.0403200104.551ba639@posting.google.com>
Source record: 97986

i will like to know how to calculate the value of capacitance with an antenna input of 10 watts & 500watts?

4515. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 11:12:43 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <zGV6c.19641$uh.2226@fed1read02>
Source record: 97987

"Jack Painter" <223bthp@cox.net> wrote in message
news:rlt6c.8629$F91.8390@lakeread05...
> Mostly one sea-lawyer's rant in this group, was that it is illegal to
> interfere with any radio signal, etc. That opinion is absent of
> understanding the intent of that law, or where it may be applied.
>
> On private property, one may install any device, counter-signal,
shielding,
> etc that prevent or otherwise render inoperable any other signal that
enters
> or tries to leave that property.

Your wishes do not carry the force of law. Certainly, you may shield your property from unwanted emissions. However, can you cite any allowance for deliberate jammers, especially for a licensed service, in the CFR?

Ed
wb6wsn

4516. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 11:16:15 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <TJV6c.19642$uh.1671@fed1read02>
Source record: 97988

"Jack Painter" <223bthp@cox.net> wrote in message
news:M6L6c.9938$F91.9269@lakeread05...
> "Me" <Me@shadow.orgs> wrote in message
> news:Me-1C9A62.09034819032004@netnews.worldnet.att.net...
> > In article <rlt6c.8629$F91.8390@lakeread05>,
> > "Jack Painter" <223bthp@cox.net> wrote:
> >
> > > On private property, one may install any device, counter-signal,
> shielding,
> > > etc that prevent or otherwise render inoperable any other signal that
> enters
> > > or tries to leave that property.
> >
> > Bzzzzt, Wrong, would you like to try again for what is behind Curtain
> > No.3?
> >
> > In the USA, deployment of any "Active" device that transmits any
> > electromagnetic signal, without the appropriate License, would be
> > contrary to US Law. Specificly CFR47, as this is Regulated by the
> > Federal Communications Commission for all US Territory, Public or
> > Private.
> >
> > Nice try though......
> >
> > me
>
> It doesn't help to reference code not properly cited. Then consider how
the
> U.S. Attorney General (pick your year of political flavor) decides that
the
> government will interpret specific circumstances of every federal case
that
> is not well supported by existing case law.
>
> Some broad-reaching statements exist in most federal statutes that cannot
be
> applied to any individual circumstance, and broad language such as you
> paraphrased is not appropriate here either.

Ahhh, then you ARE a lawyer!

Ed
wb6wsn

4517. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 11:32:18 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <12W6c.19644$uh.12711@fed1read02>
Source record: 97989
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"John Woodgate" <jmw@jmwa.demon.contraspam.yuk> wrote in message
news:eRbCCRJiMhWAFwYo@jmwa.demon.co.uk...
> I read in sci.electronics.design that CW <clinton.magers@comcast.net>
> wrote (in <UtKdnXVNibo6kMfdRVn-uA@comcast.com>) about 'Cellphones and
> Bombs', on Thu, 18 Mar 2004:
> >You can try to ratioanlize it as much as you want. The willfull
> >electronic interference of a radio service is a crime. Did you read the
> >part of my post about signal blocking? I thought not. Go back and try
> >again. If a terorist is going to strike, he is going to strike. The
> >Department of Homeland Paranoia is not going to be able to do anything
> >about it.
>
> I am ALMOST old enough to remember a similar idea held in UK and Europe
> before WW2, that 'the bomber (aircraft) will always get through'. The
> RAF pretty well disproved it.

OTOH, the Eighth Air Force did pretty much prove it. Unfortunately, they
didn't always come back.

Ed
wb6wsn

4518. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 11:50:29 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <ZdW6c.19672$uh.2581@fed1read02>
Source record: 97990
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Roger Gt" <not@here.net> wrote in message
news:_ka6c.25584$D82.1569@newssvr29.news.prodigy.com...
>
> "Active8" wrote
> : Roger Gt wrote:
> : > "Paul Burridge" wrote
> : >: Jim Thompson wrote:
> : >:
> : >:>I was struck by a thought when I heard the latest Palestinian
> : >:>terrorist trick is to send a kid through the border with a
> : > back-pack
> : >:>bomb triggered by a cell phone....
> : >:>
> : >:>The Israelis should get a telemarketer's speed dialer and
> : > constantly
> : >:>dial away... boom... boom... boom...
> : >:>
> : >:>ROTFLMAO!
> : >:
> : >: Yes, I'm rolling on the floor laughing at all these deaths,
> too,
> : > as
> : >: I'm sure we all are.
> : >
> : > Huh?
> : > He seemed to be laughing at the lame Idea! I also thought it
> : > funny that anyone would try something which would almost
> totally
> : > wipe out the cellular phone service for the entire country...
> :
> : does a 200 station phone room with auto-dialers all calling one
> : state wipe out POTs? WTH are *you* talking about?
>
> Gee - Primitive! Not a Telephone guy I guess......
> The last autodialer I worked on was a Dual DS3 line unit with a
> router.
> 2 times 864 lines wide. A few of those would really choke a
> network!

So YOU are one of the SOB's who create those things?

Ed
wb6wsn

4519. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 11:56:25 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <xjW6c.19698$uh.19342@fed1read02>
Source record: 97991
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Ben Bradley" <ben_nospam_bradley@mindspring.example.com> wrote in message
news:572i50l3vv3l6t933e5u4bjq7k2rq3hq7r@4ax.com...
> In rec.radio.amateur.antenna,
>
> (I suppose this is on RRAA because cell phones have antennas)
>
> sci.electronics.design,sci.electronics.basics, Jim Thompson
> <thegreatone@example.com> wrote:
>
> Of course, in the USA, one could put the cell number on the
> national DO-NOT-CALL list, then only an "illegal" telemarketer would
> trigger the bomb.
>
> Bombers might figure ways around this (especially if they search
> Usenet), such as a cellphone answering circuit and a "dee tee em eff"
> decoding circuit. I wouldn't want to spell it out for them...
>
> > ...Jim Thompson

They may not be as illiterate as you suggest; perhaps Pig Latin could offer
sufficient encryption: Eeday eetay emyay effyay.

Ed
wb6wsn

4520. Re: Gamma Match

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 12:41:08 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <EZW6c.47130$_w.750954@attbi_s53>
Source record: 97992

Capacitance stays the same!!

Voltage rating varies.

g subs wrote:
> i will like to know how to calculate the value of capacitance with an
> antenna input of 10 watts & 500watts?

4521. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 12:54:48 UTC
From: Richard Heindel <rheindel@neo.rr.com>
Message-ID: <saX6c.39404$8G2.22389@fe3.columbus.rr.com>
Source record: 97993

You can still buy rotors and parts here: http://www.rotorservice.com/
Norm is a real good guy to do business with.

73 Richard WB8KRN

> There is a wirewound pot in the rotator unit which tends to get dirty
> and can lead to erratic readings as well. You can clean it pretty well
> with a little very fine grit paper, or contact cleaner. It is this
> pot which tells the meter which direction the antenna is pointing. I
> also saw one which opened up at one end and had to be replaced. That
> way way back when, but you should be able to order the part. Replacement
> is easy. If you do replace it, give it a little spray of contact
> cleaner before reassembling the rotor unit.
>
> Hope this helps...
>
> Irv VE6BP

4522. degen BBQ lobe ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 12:57:46 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <405c3fc5$1_1@news.vo.lu>
Source record: 97994

Hi,

I 'd like to know what is the opening of the Degen BBQ main lobe (2-element HF quad).
Even the manufacturer website doesn't provide this info, only the gain, 11 dBi.

Maybe something like 30° wide ? Can someone confirm ?

Thanks in advance

73
Thierry, ON4SKY
http://www.astrosurf.com/lombry

4523. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 13:10:43 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <boX6c.13778$rQ.2382@lakeread04>
Source record: 97995

"Jack Painter" <223bthp@cox.net> wrote in message
news:rlt6c.8629$F91.8390@lakeread05...
> Mostly one sea-lawyer's rant in this group, was that it is illegal to
> interfere with any radio signal, etc. That opinion is absent of
> understanding the intent of that law, or where it may be applied.
>

Using this logic, it is okay to pirate encrypted satellite signals
encroaching on your property....

Pete

4524. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 13:12:21 UTC
From: Guy Macon <http>
Message-ID: <7rednfdoKtWg3sHd4p2dnA@speakeasy.net>
Source record: 97996
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

See my post titled Intrinsic Safety

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4525. Intrinsic Safety

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 13:13:36 UTC
From: Guy Macon <http>
Message-ID: <7rednfZoKtUa3sHd4p2dnA@speakeasy.net>
Source record: 97997
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics

John Michael Williams <jwill@AstraGate.net> says...

>Actually, a former maritime safety engineer Emailed me
>about this. However, he could not locate the law or regulation
>which defines "intrinsic safety". If you can find a law
>or regulation governing operation of a transmitter around
>a gas pump, please post it.

The National Fire Protection Associationï¿½s (NFPA) National Electrical Code (Article 500, NFPA 70) defines Hazardous Locations as those areas "where fire or explosion hazards may exist due to flammable gases or vapors, flammable liquids, combustible dust, or ignitable fibers or flyings."

NFPA-NEC Intrinsic Safety ratings detail the specific Hazardous Location in which an electrical device can be used without fear of electrostatic discharge that may cause an explosion. The classification that applies to auto fuels are: Class I: Gases, vapors and liquids - Group D: Hydrocarbons, fuels, solvents, etc. - Division II: Not normally present in explosive concentrations (but may accidentally exist).

Other standards that apply to Intrinsic Safety are:

ANSI/UL 913 Intrinsically Safe Apparatus and
Associated Apparatus for Use in Class I, II, and III,
Division 1, Hazardous (Classified) Locations

US Mine Safety and Health Administration (MSHA)
Mine Wide Monitoring Systems (MWMS) Program:
MSHA ACRI2001 - 30 CFR Part 18, Part 23

CENELEC/EN European Standards for electrical
apparatus for potential explosive atmosphere
General requirements EN 500 14 [IEC 60079-0]
Increased safety "e" EN 500 19
Intrinsic safety "i" EN 500 20 [IEC 60079-11] [BS 5501 part 7]

Canadian Standards Association (CSA) C22.2 No. 157-92

ANSI/ISA RP 12.6 Wiring Practices for Hazardous (Classified)
Locations Instrumentation - Part 1: Intrinsic Safety

Factory Mutual Research Corporation (FMRC)?

American Society for Testing and Materials (ASTM)?

Also see:

http://www.crouse-hinds.com/CrouseHinds/resources/intrinsically_safe/insafe.cfm
http://www.ascojoucomatic.com/images/site/upload/_en/pdf1/V1005gb.pdf
http://www.mtlnh.com/datashts/sensors/Sen%20Specs.pdf
http://www.msha.gov/S&HINFO/TECHRPT/ELECTRICAL/imisf.pdf
http://www.gexcon.com/index.php?src=handbook/GEXHBcontents.htm
http://www.electrona.se/pdf/tp_1110_3.pdf
http://www.ieee-pcic.org/archive/pcic98.pdf

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4526. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 13:16:52 UTC
From: Guy Macon <http>
Message-ID: <7rednfBoKtXR2cHd4p2dnA@speakeasy.net>
Source record: 97998
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

Jan Panteltje <panteltje@yahoo.com> says...

>it rang, and that is how they found it.
>So it MUST have had a sim card.

My cellphone rings without any simm card. All I have to
do is to set the alarm clock function.

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4527. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 14:04:16 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <SWaxTlCg9EXAFwhl@jmwa.demon.co.uk>
Source record: 97999
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that Ed Price <edprice@cox.net> wrote
(in <12W6c.19644$uh.12711@fed1read02>) about 'Cellphones and Bombs', on
Sat, 20 Mar 2004:
>
>"John Woodgate" <jmw@jmwa.demon.contraspam.yuk> wrote in message
>news:eRbCCRJiMhWAFwYo@jmwa.demon.co.uk...
>> I read in sci.electronics.design that CW <clinton.magers@comcast.net>
>> wrote (in <UtKdnXVNibo6kMfdRVn-uA@comcast.com>) about 'Cellphones and
>> Bombs', on Thu, 18 Mar 2004:
>> >You can try to ratioanlize it as much as you want. The willfull
>> >electronic interference of a radio service is a crime. Did you read the
>> >part of my post about signal blocking? I thought not. Go back and try
>> >again. If a terorist is going to strike, he is going to strike. The
>> >Department of Homeland Paranoia is not going to be able to do anything
>> >about it.
>>
>> I am ALMOST old enough to remember a similar idea held in UK and Europe
>> before WW2, that 'the bomber (aircraft) will always get through'. The
>> RAF pretty well disproved it.
>
>
>OTOH, the Eighth Air Force did pretty much prove it. Unfortunately, they
>didn't always come back.
>
The idea was that there was *no effective defence** against bomber
aircraft, and it is that which is false. OTOH, there was no effective
defence against V2 rockets at the time. Luckily, they were developed too
late to prevail.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4528. Re: HUGE (Was: Hugh) antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 15:32:13 UTC
From: Andy in NJ <"SHORECOGS at COMCAST DOT NET">
Message-ID: <otOdnRdGovmY-cHdRVn-gw@comcast.com>
Source record: 98000

What exactly is a Hugh tower? Is it a tower owned by Hugh Grant? :)

4529. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 15:36:37 UTC
From: Stevens <stevens@stevens.net>
Message-ID: <f7po50hr013b4pu8131gjtid8c4t65a1dj@4ax.com>
Source record: 98001

Plasti-Dip

On Sat, 20 Mar 2004 04:28:49 GMT, "Major Tom"
<NonValidAddress@comcast.net> wrote:

>"R. Scott" <washingtonhamTHREAD@yahoo.com> wrote in message
>news:4057128A.FBB090F@yahoo.com...
>> I had been using the Stretch Seal stuff. But Im replacing all my coax
>> and noticed that the Feed for my Beam the seal was all cracked and had
>> come apart in places (especially the braid side. Ive a can of Liquid
>> tape and had thought of that.
>>
>> So how do you guys seal your outside coax ?
>> --
>> Rick N7HJ
>> Everett, Washington
>> Remove THREAD to reply.
>
>One word: BUTYL
>
>But instead of buying that "Coax-Seal" for 3 bucks for a small box,
>I got a large roll "1/2 in diameter, over 10 feet long for
>less than 8 bucks at an auto glass shop. Same stuff for a lot
>cheaper. I bought a roll of this stuff back in 1990 and i'm still
>into that same roll! Stuff lasts for decades.
>

4530. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 15:38:12 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <EzZ6c.11821$F91.5512@lakeread05>
Source record: 98002

"Ed Price" <edprice@cox.net> wrote in message
news:zGV6c.19641$uh.2226@fed1read02...
>
> "Jack Painter" <223bthp@cox.net> wrote in message
> news:rlt6c.8629$F91.8390@lakeread05...
> > Mostly one sea-lawyer's rant in this group, was that it is illegal to
> > interfere with any radio signal, etc. That opinion is absent of
> > understanding the intent of that law, or where it may be applied.
> >
> > On private property, one may install any device, counter-signal,
> shielding,
> > etc that prevent or otherwise render inoperable any other signal that
> enters
> > or tries to leave that property.
>
>
> Your wishes do not carry the force of law. Certainly, you may shield your
> property from unwanted emissions. However, can you cite any allowance for
> deliberate jammers, especially for a licensed service, in the CFR?
>
> Ed
> wb6wsn
>

Ed,

Don't mistake my comments as inviting anyone to break the law. But also avoid the trap of thinking that permission from the government is required in order for you to act.

I've noticed that good Amateur Radio operators behave in a most responsible fashion, proud of the responsiblity and mindful of the consequences of radio operation. But the word priviledge is something reserved for a self-regulated hobby like amateur radio, not the law. The law and the constitution do not grant citizens "priviledges".

In a previous part of this thread a member already gave the example of intentional radiators (low power) allowed. If that (part 15 ?) exemption was not there, it would still not make the force of law any more permissable for government to interfere with the rights of a property owner, as long as (he) was not harming interstate commerce, which is the currently used (wider-than-hell and not always defendable) definition for every new encroachment on our Constitution. Patriot act definitions will probably not survive long enough to be tried in a court, but if they were the standard, even the rumour that you were thinking about signals would subject you to a

search.

73's,

Jack

4531. Re: Gamma Match

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 15:42:20 UTC
From: Stevens <stevens@stevens.net>
Message-ID: <hhpo505oor0hk58ulqjfetvre8dnojb94d@4ax.com>
Source record: 98003

get a copy of HamCal from CQ Magazine's web site. It has a gamma
program.
http://www.cq-amateur-radio.com/HamCalcem.html

On 20 Mar 2004 01:04:48 -0800, stylzmovements2000@yahoo.com (g subs)
wrote:

>i will like to know how to calculate the value of capacitance with an
>antenna input of 10 watts & 500watts?

4532. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 16:49:11 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <cC_6c.11826$F91.235@lakeread05>
Source record: 98004

"Ed Price" <edprice@cox.net> wrote
> "Jack Painter" <223bthp@cox.net> wrote in message
> > Mostly one sea-lawyer's rant in this group, was that it is illegal to
> > interfere with any radio signal, etc. That opinion is absent of
> > understanding the intent of that law, or where it may be applied.
> >
> > On private property, one may install any device, counter-signal,
> shielding,
> > etc that prevent or otherwise render inoperable any other signal that
> enters
> > or tries to leave that property.
>
>
> Your wishes do not carry the force of law. Certainly, you may shield your
> property from unwanted emissions. However, can you cite any allowance for
> deliberate jammers, especially for a licensed service, in the CFR?
>
> Ed
> wb6wsn
Ed,

Don't mistake my comments as inviting anyone to break the law. But also avoid the trap of thinking that permission from the government is required in order for you to act.

I've noticed that good Amateur Radio operators behave in a most responsible fashion, proud of the responsiblity and mindful of the consequences of radio operation. But the word priviledge is something reserved for a self-regulated hobby like amateur radio, not the law. The law and the constitution do not grant citizens "priviledges".

In a previous part of this thread a member already gave the example of intentional radiators (low power) allowed. If that (part 15 ?) exemption was not there, it would still not make the force of law any more permissable for government to interfere with the rights of a property owner, as long as (he) was not harming interstate commerce, which is the currently used (wider-than-hell and not always defendable) definition for every new encroachment on our Constitution. Patriot act definitions will probably not survive long enough to be tried in a court, but if they were the standard, even the rumour that you were thinking about signals would subject you to a search.

73's,

Jack

4533. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 16:52:13 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <1F_6c.11827$F91.7199@lakeread05>
Source record: 98005

```
" Uncle Peter" <radioconnectionNO@cox.netSPAM>
> "Jack Painter" <223bthp@cox.net> wrote in message
> > Mostly one sea-lawyer's rant in this group, was that it is illegal to
> > interfere with any radio signal, etc. That opinion is absent of
> > understanding the intent of that law, or where it may be applied.
> >
>
> Using this logic, it is okay to pirate encrypted satellite signals
> encroaching on your property....
>
> Pete

Pete, you smirkingly use the word "pirate" to imply illegal activity, so
answer your own question. Sarcasm aside, then yes you may learn the nature
of anything that enters your property. But we are all well aware of the
consequences for acting on that knowledge.

Jack
```

4534. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 17:34:14 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <ef%6c.13866$rQ.7701@lakeread04>
Source record: 98006

"Jack Painter" <223bthp@cox.net> wrote in message
news:1F_6c.11827$F91.7199@lakeread05...
> " Uncle Peter" <radioconnectionNO@cox.netSPAM>
> > "Jack Painter" <223bthp@cox.net> wrote in message
> > > Mostly one sea-lawyer's rant in this group, was that it is illegal to
> > > interfere with any radio signal, etc. That opinion is absent of
> > > understanding the intent of that law, or where it may be applied.
> > >
> >
> > Using this logic, it is okay to pirate encrypted satellite signals
> > encroaching on your property....
> >
> > Pete
>
> Pete, you smirkingly use the word "pirate" to imply illegal activity, so
> answer your own question. Sarcasm aside, then yes you may learn the nature
> of anything that enters your property. But we are all well aware of the
> consequences for acting on that knowledge.
>
> Jack
>
>
It is still intentional interference with a LICENSED service, regardless of
where it is used.

Pete

4535. Something we all take for granted

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 19:35:10 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <O117c.3570$qH5.347175@twister.southeast.rr.com>
Source record: 98007

http://www.arrl.org/tis/info/whyantradiates.html

4536. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 20:25:58 UTC
From: richardharrison@webtv.net
Message-ID: <3183-405CA8D6-11@storefull-3256.bay.webtv.net>
Source record: 98008

Art, KB9MZ wrote:
"Here he (Moxon) showed a combination loop dipole that could be used for at least three bands. What was important to me was the importance of coupling which brings up the issue that no where does it say that all antennas must be based around wavelength and the accompanying series circuit."

Just as surely, Moxon does not say that his loop and dipole antenna is aperiodic.

Every piece of wire has a frequency of first resonance where its distributed inductance and distributed capacitance have equal reactance magnitudes. At this frequency, these reactances of opposite types exactly cancel leaving only resistance to oppose antenna current.

Either side of resonance, antenna impedance rises sharply due to reactance. Radiation resistance causes the Q to be low as compared to an unloaded LC tuned circuit. An antenna may have a Q in the teens while an unloaded LC circuit can have a Q in the hundreds.

Moxon may have assumed his readers understood such antennas as his were resonant and sensitive to frequency (wavelength).

I don`t have Moxon`s diagram but from Art`s description of long ago, his version conjoins loop and center-fed dipole rod. The feedline connects directly to the loop or through a variable capacitor. In either case, coupling seems complete to me.

I guess Moxon didn`t motorize the capacitance in his T / gamma matching system, so Art patented it.

Best regards, Richard Harrison, KB5WZI

4537. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 20:36:22 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403201236.11d34d9d@posting.google.com>
Source record: 98009
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

stylzmovements2000@yahoo.com (g subs) wrote in message
news:<51eca3ef.0403170031.46a2998b@posting.google.com>...
> where is the center of radiation on this antenna ?
> where will the strongest field strength be ?

Looking at:

http://www.drslick.org/Temp1/yagiplot.jpg

You will notice the lobe is greatest at the rear (180), and
this is because of an interesting use of the yagi optimizer program,
where we actually used two directors to act as reflectors.

So the strongest field strength will be where you point the driven
element (dipole), and the weakest ERP will be where the two reflectors are
facing.

Slick

4538. Re: >>>>> DIRECTIONAL YAGI FOR 92.9 MHz (180 degrees)<<<<<<<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 20:40:40 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0403201240.626c6deb@posting.google.com>
Source record: 98010
Cross-posted to: rec.radio.amateur.antenna,alt.radio.pirate

stylzmovements2000@yahoo.com (g subs) wrote in message
news:<51eca3ef.0403171717.1031f940@posting.google.com>...
> i found this antenna page ,
> can i use a coil for the use od decoupling the signal?
>
> http://www.packetradio.com/images/6mdipole.gif

Well, if you look at the picture i posted, you will see
the 4 turns of 4" diameter loops that we placed in the RG-213,
just before the feedpoint.

Your site shows 10 turns of RG-58, which may or may not be
too many turns.

But barrel connectors have a bad reputation for higher losses
that if you used a mounted SO-239. For higher than 300 watts, you
should use a type "N" connector.

Slick

4539. Re: degen BBQ lobe ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 21:15:28 UTC
From: G&R <spam@limbo.hell>
Message-ID: <2w27c.26786$Eb6.866508@news20.bellglobal.com>
Source record: 98011

Hi Thierry,

Thank you for pointing this out, I'll post some plots in the next couple of days.

You will find that, if you download the TCA article it does show some plots.

While we are proud of the 11dBi gain, it must be correctly reference to a dipole and the gain is about 4dBd (depending on the band). This is mainly do to the reason that we compare our modelled antenna with the modelled Dipole (on the same software) to give fair value. This ensure any form of errors in gain are cancelled out correctly instead of using the typical 2.1dbi value for a Dipole and providing a falsely unrealistic value.

I'll also send you a copy of the charts for your records.

73,
Guenther VE3CVS
info@degendesigns.com
www.degendesigns.com

> Hi,
>
> I 'd like to know what is the opening of the Degen BBQ main lobe
(2-element
> HF quad).
> Even the manufacturer website doesn't provide this info, only the gain, 11
> dBi.
>
> Maybe something like 30° wide ? Can someone confirm ?
>
> Thanks in advance
>
> 73
> Thierry, ON4SKY
> http://www.astrosurf.com/lombry
>
>

4540. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 21:49:22 UTC
From: panteltje@yahoo.com
Message-ID: <d75ca6e4.0403201349.7de4ca1d@posting.google.com>
Source record: 98012
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

Guy Macon <http://www.guymacon.com> wrote in message
news:<7rednfBoKtXR2cHd4p2dnA@speakeasy.net>...
> Jan Panteltje <panteltje@yahoo.com> says...

>My cellphone rings without any simm card. All I have to
>do is to set the alarm clock function.
Yes, that works here too.
Even when the thing is off!
But what I ment is that I got the impresion it was really ringing,
like they dialed it, and for that you need a SIM.
Of cause if you had the phone, a look in the flash would reveal
much of what they had done (likely some card was in it for testing).
Probably we will not hear details for obvious reasons.
But again, do not blame it on cellphones, if these were not
available they would use something else I am sure.
In fact the phone gave them away!

We will have to live with the danger.
I missed an IRA bomb by one minute years ago in London,
just clearly remember the thought 'shall I go have a cup of coffee
in that Wimpy (coffee bar), or go back to the office (tube across it)'.
We had to go for a production to Italy next day or so, and had a lot to do
(was working in London in that time).
So I took the tube back to the office, whan I arrived there it was on the
news that a IRA bomb was in that coffee shop.
So, dangers surround us all the time, why we move, and how we move, our timing,
be concious.
JP

4541. Again Which has most gain Stationmaster or G9?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 21:53:51 UTC
From: Joseph Fenn <jfenn@lava.net>
Message-ID: <Pine.BSI.4.58.0403201151460.25772@malasada.lava.net>
Source record: 98013

Again am asking which vhf antenna has the most gain, the
G9 by newtronics or the commercial Stationmaster which is
a similar vertifcal for VHF.
Joe (aka kilroy)

****
* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
****

4542. Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 22:15:52 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <so37c.696$Ve2.135@newssvr23.news.prodigy.com>
Source record: 98014

If I'm treading old ground please excuse the post. Today at the local hamfest I ran across a 20 meter Isotron that the seller touting. After looking at its simplicity and hearing how great it was I couldn't resist because it was only $10.00. So now that I have it, I'm curious as to the theory behind it and how an 89 turn coil of No. 12 wire on a 3/4" piece of PVC along with a 12" aluminum rod and a couple of aluminum plates can load and dissipate 1000 watts. I've seen their ads for years and always thought they were snake oil but at $10.00 I bit. Anyone really know the theory behind these things?
tnx
Hank WD5JFR

4543. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 22:50:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6khp501slq3iur2ae50h5ics0mhbpsqksu@4ax.com>
Source record: 98016

On Sat, 20 Mar 2004 22:15:52 GMT, "Henry Kolesnik"
<kolesnik@sbcglobal.net> wrote:

>If I'm treading old ground please excuse the post. Today at the local
>hamfest I ran across a 20 meter Isotron that the seller touting. After
>looking at its simplicity and hearing how great it was I couldn't resist
>because it was only $10.00. So now that I have it, I'm curious as to the
>theory behind it and how an 89 turn coil of No. 12 wire on a 3/4" piece of
>PVC along with a 12" aluminum rod and a couple of aluminum plates can load
>and dissipate 1000 watts. I've seen their ads for years and always thought
>they were snake oil but at $10.00 I bit. Anyone really know the theory
>behind these things?
>tnx
>Hank WD5JFR
>

Hi Hank,

This intersects with so many recent topics, it is hard to know where
to begin.

First, undoubtedly through the combination of capacitance (the plates)
the inductance (the windings) and radiation resistance, it resonates
and sheds heat like your grandmother's clothes iron. That it is so
small, it automatically removes it from concerns of being too big to
qualify as lumped components (I will bet the current into the coil
nearly equals the current into its other end).

Some claims bandied here would have us believe that its "high Q"
renders an efficiency (per unit length) unparalleled since the days of
Watt's steam engine. It must certainly be competitive with italian eh
models and show more gain than a Georgia AM station converted to cfa
(but only for the first 300 yards).

If none of this satisfies your quest for understanding; then you can,
of course, visit the vendor's site, observe their "how it works"
description and then find the exact same wording in an unbiased review
from 1996. ;-)

73's
Richard Clark, KB7QHC

4544. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 23:00:16 UTC
From: lederman@star.enet.dec.DISABLE-JUNK-EMAIL.com
Message-ID: <c3iie0nmc1@xuxa.iecc.com>
Source record: 97921
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

I have one of the small desk clocks that synchronizes to WWVB at
night. It auto-adjusts the internal crystal (or says it does)
to keep itself going during the day. I've found that it maintains
accuracy very well: certainly good enough for anything short of
atomic physics.

I live in the NorthEastern U.S., where the signal is relatively weak
(look at the maps at the URL a previous poster supplied) and don't
have any significant trouble with it. I looked at the NIST web
site, and I think they said something about boosting the power of
the WWVB signal: so if you had trouble with it before, it might
be worth trying again.

--
B. Z. Lederman Personal Opinions Only

Posting to a News group does NOT give anyone permission
to send me advertising by E-mail or put me on a mailing
list of any kind.

Please remove the "DISABLE-JUNK-EMAIL" if you have a
legitimate reason to E-mail a response to this post.

4545. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 23:00:18 UTC
From: Dennis <Howdy.Doody@howdydoody.net>
Message-ID: <c3iie2nno1@xuxa.iecc.com>
Source record: 97920
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

In article <c3f72uino1@xuxa.iecc.com>, n8kdv@nospam.iserv.net says...
>
>
>
>
>Joseph Fenn wrote:
>
>> How in the hell can the CLOCK detector tell any difference between
>> the time signal from WWV or WWVH. They are both on exact same
>> frequecies, the time tick is identical on both !!!!
>
>Once again, the clock the individual wants plans for uses the signal from WWVB
in
>Ft. Collins, Colorado on 60 kHz.

Yes, not to belabor the subjct, but WWVB is 60Khz,
while WWV, & WWVH are 2.5.....20Mhz.

There is no voice with WWVB. Howver, for calibration purposes
WWVB is more stable, and accurate.

Dennis
>
>
>

4546. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 23:00:19 UTC
From: mzenier@eskimo.com
Message-ID: <c3iie3$np7$1@xuxa.iecc.com>
Source record: 98017
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

In article <c3cpcm$3vs$1@xuxa.iecc.com>, Joseph Fenn <jfenn@lava.net> wrote:
>How in the hell can the CLOCK detector tell any difference between
>the time signal from WWV or WWVH. They are both on exact same
>frequecies, the time tick is identical on both !!!!
> Kokomo Joe

No, the second ticks are 5 cycles of 1000 Hz on WWV and 6 cycles of
1200 Hz on WWVH.

Mark Zenier mzenier@eskimo.com Washington State resident

4547. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 23:00:23 UTC
From: Dennis <Howdy.Doody@howdydoody.net>
Message-ID: <c3iie7nrl1@xuxa.iecc.com>
Source record: 97919
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc, rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

In article <c3cpcm$3vs$1@xuxa.iecc.com>, jfenn@lava.net says...
>
>
>How in the hell can the CLOCK detector tell any difference between
>the time signal from WWV or WWVH. They are both on exact same
>frequecies, the time tick is identical on both !!!!
> Kokomo Joe
>WWVH on Kauai has a consistantly strong signal. Albeit at times
>is totally off the air several times in any given month.
>

You're right a wwv or wwvh clock both receive and decode
the same manner. Both wwv and wwvh transmit at 2.5, 5. 10, 15, & 20Mhz.
There is no 60Khz on Kiuai.

Dennis
>
>**
>* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
>**
>
>
>On Wed, 17 Mar 2004, N8KDV wrote:
>
>>
>>
>> Scott Dorsey wrote:
>>
>> > tommyknocker <tomynokr@uucp.hell> wrote:
>> > >Forget about getting an atomic clock to set in Hawaii. The signal is
>> > >simply too weak. Atomic Time (who I bought my dual time clock from) says
>> > >that it helps if you point the antenna (apparently they just use ferrite
>> > >rod antennas-just like in a cheap transistor radio-to recieve) towards
>> > >Fort Collins, which is due east of my QTH.
>> >
>> > Huh? WWVH in Lihue used to come in five and nine everywhere in Hawaii.
>> > On AM car radios, tape recorders, sometimes even rice cookers.
>> > --scott
>>
>> That may be the case Scott, but the 'atomic clocks' they are speaking of use
>> the WWVB signal from Ft. Collins, Colorado on 60 KHz to set their time
>> automatically.
>>

>> That signal may indeed not be propagating well enough to be of use in
Hawaii.
>>
>> Steve
>> Holland, MI
>> Drake R7, R8 and R8B
>>
>> http://www.iserv.net/~n8kdv/dxpage.htm
>>
>>
>>
>>
>

4548. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 23:00:25 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <c3iie9nso1@xuxa.iecc.com>
Source record: 98018
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

> That was a Navy transmitter, not NIST.

Yes.

>I was stationed at Lualualei
> for almost two years in the mid '70s. I wonder if it is still on the
> air now that they have switched most of their circuits to satellite.

We were there at the same time. 69-87 for me.

I once had to put in a buried seismic alarm system right across the street
from that transmitter.
Took some interesting filtering on the signal lines, not to mention three
weeks to ditch through the coral.

4549. Re: Again Which has most gain Stationmaster or G9?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 23:20:01 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <PsadnTPF8J1pXsHd4p2dnA@ctc.net>
Source record: 98015

"Joseph Fenn" <jfenn@lava.net> wrote in message
news:Pine.BSI.4.58.0403201151460.25772@malasada.lava.net...
> Again am asking which vhf antenna has the most gain, the
> G9 by newtronics or the commercial Stationmaster which is
> a similar vertifcal for VHF.
>
The longest one.

4550. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-20 23:51:23 UTC
From: jgboyles@aol.com
Message-ID: <20040320185123.01431.00000168@mb-m13.aol.com>
Source record: 97922

>Today at the local
>hamfest I ran across a 20 meter Isotron that the seller touting.
Anyone really know the theory
>behind these things?

As far as I can tell the Isotron is a parallel tuned circuit. On 20M it should work as well as any other antenna of the same size and height above ground, cause it depends on feed line radiation, just like all the other "small' antennas. On 20 it should do ok, but try one on 80 or 160M.

I would not put a 20M Isotron on the air if someone gave me one. There are too many other ways to get out a decent signal. I might take it apart and use the aluminum plates, PVC, and wire on a later project, though.

73 Gary N4AST

4551. Re: HUGE (Was: Hugh) antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 00:25:46 UTC
From: gus <gus_amato@spamfree.net>
Message-ID: <405CE109.A2A6C8BF@spamfree.net>
Source record: 97923

http://www.fybush.com/site-021219.html

Andy in NJ wrote:

> What exactly is a Hugh tower? Is it a tower owned by Hugh Grant? :)

4552. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 00:28:55 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <bl57c.724$u93.484@newssvr23.news.prodigy.com>
Source record: 97924

I don't think the parts are worth $5.00 purchased retail.

Hank
"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040320185123.01431.00000168@mb-m13.aol.com...
> >Today at the local
> >hamfest I ran across a 20 meter Isotron that the seller touting.
> Anyone really know the theory
> >behind these things?
>
> As far as I can tell the Isotron is a parallel tuned circuit. On 20M it
> should work as well as any other antenna of the same size and height above
> ground, cause it depends on feed line radiation, just like all the other
> "small' antennas. On 20 it should do ok, but try one on 80 or 160M.
>
> I would not put a 20M Isotron on the air if someone gave me one. There
are
> too many other ways to get out a decent signal. I might take it apart and
use
> the aluminum plates, PVC, and wire on a later project, though.
>
> 73 Gary N4AST

4553. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 00:47:36 UTC
From: jgboyles@aol.com
Message-ID: <20040320194736.01431.00000172@mb-m13.aol.com>
Source record: 97925

>I don't think the parts are worth $5.00 purchased retail.

I agree Hank, if you want something small and cheap on 20M, lots of
alternatives.
73 Gary N4AST

4554. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 01:24:30 UTC
From: Jeff Liebermann <jeffl@comix.santa-cruz.ca.us>
Message-ID: <mppp50ho4dr08ahkb3dlbqkcfkp0ihjn52@4ax.com>
Source record: 97926
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On 17 Mar 2004 12:02:15 -0800, jwill@AstraGate.net (John Michael Williams) wrote:

>However, the first radios transmitted
>sparks, so in principle it should be possible to
>transmit near a long wire separated by a small gap from
>ground or another wire and get a small spark.

There were few spark transmitters mounted in automobiles. They were just too inefficient, big, and clumsy to be functional. Transmitters in vehicles really didn't start until tube type transmitters became popular. The problem was that the typical mobile radio used a dynamotor (motor-generator) combination to generate the necessary high voltages. With the radio and dynamotor mounted in the trunk of the vehicle, there was a good chance that gasoline fumes would accumulate in the trunk of the vehicle and be ignited by the spark from the dynamotor commutator. See the photo of the 80D at:
http://www.telmore.com/ka1nvz/old_two-way/motorola/49-59.html
The dynamotor is the black cylinder near the handle. The 140D was twice as big and heavy.

Back in the 1960's, my 1960 Ford Falcon had an assortment of Motorola 80D and 140D radios in the trunk. I experienced a small explosion in the trunk ignited by the dynamotor. I had filled up the gas tank at the local gas stop (for 19 cents per gallon). Warm weather caused it to expand and leak vapour into the trunk. Key the transmitter, the dynamotor starts, sparks, and boom.

>I then attached a 1.2 m monopole antenna to an oscilloscope.
>This antenna has a Schottky hot carrier diode and impedance
>matching resistors builtin.

Lovely. A harmonic generator. Any reason you want lots of harmonics? Shottky diodes or any other non-linear device, do not belong in antenna matching circuits.

>It's home made, but it's probably
>as good as any other wire about that long.

Wrong. Optimum for CB is either a 1/4 wave monopole (102 inches) or two of them to form a half wave dipole.

>So, first conclusion: To get even a 1 V spark would take a
>wire at least 9 m long, all somehow kept within 1 m of the
>transmitter. Thus, it appears it is not feasible to create a
>hazardous spark with a CB at a gas station.

Find a 4 watt flourescent light. Attach a 1/4 wave antenna to your 5 watt CB radio. Transmit. Hold lamp in hand and touch the end of the 102" antenna. It will light when you talk. (Note: With AM modulation, you only get 5 watts when you yell into the microphone. Without modulation, you only get about 2.5 watts of RF). Now, ask yourself what voltage is required to light the flourescent lamp.

In order to get a spark, you need to generate enough voltage to ionize the air between the contacts. That's about 20KV/inch. If we eliminate the antenna, 5 watts of RF into 50 ohms will generate:
P = E^2 / R
E = 16v rms
E(peak) = 1.4 * 16 = 22 volts
The gap necessary to create an arc with 22 volts is:
22V / 20,000V/in = 0.001 inches
Kinda small, but given a microscope, a 1 mil spark gap will arc. Of course the VSWR protection circuity in the transmitter will instantly shut down the transmitter when it arcs, but that takes a few millisec.

Notice that this is a voltage phenomenon, and is not dependent upon the power level. Therefore, an antenna that offers a voltage step-up will generate a higher voltage. However as the antenna is in the air and nowhere near a close enough ground to arc, it doesn't matter. If there's gonna be any arcing, it will be between the xmitter output and the base of the antenna.

The typical mobile FM transmitter of the day (1960's) cranked out between 15 and 150 watts. Most were around 75 watts. Run the calcs again for 75 watts and see if the gap is more reasonable (I'm lazy).

The next question is how much heat is necessary from the arc to ignite the gasoline vapour. I'll leave that as an exercise for when I have more time to burn. Gotta get back to lying and cheating on my taxes.

--

Jeff Liebermann 150 Felker St #D Santa Cruz CA 95060
831.336.2558 voice http://www.LearnByDestroying.com
jeffl@comix.santa-cruz.ca.us
831.421.6491 digital_pager jeffl@cruzio.com AE6KS

4555. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 01:28:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3ir40$41j$1@titan.btinternet.com>
Source record: 97927

The theory has been worked out for the last 100 years and your Isotron will work exactly as the theory predicts.

Radiated power will be about 1 watt and the antenna itself will glow in the dark.

I'm surprised you backward Yanks still believe sales blurbs. In Europe we have what are known as "The Trades Description Acts" (Of parliament).

Reg.

4556. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 01:38:26 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <mm67c.733$Dt3.268@newssvr23.news.prodigy.com>
Source record: 97928

Reg

Yanks started on snake oil in the old west and can't break the habit. I'm a Canuck and didn't get as exposed! But a little more info would be appreciated. Also I'm wondering if the angle of the dangle on the Isotron is important, hi..hi..
73
Hank WD5JFR
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:c3ir40$41j$1@titan.btinternet.com...
> The theory has been worked out for the last 100 years and your Isotron will
> work exactly as the theory predicts.
>
> Radiated power will be about 1 watt and the antenna itself will glow in the
> dark.
>
> I'm surprised you backward Yanks still believe sales blurbs. In Europe we
> have what are known as "The Trades Description Acts" (Of parliament).
> ----
> Reg.
>
>

4557. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 01:40:50 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <ifsp50ttuhcm65asrg662ranvvpft2q4q5@4ax.com>
Source record: 97929

Remember blocking and jamming are different.

I think you will find that the cell phone companies and thus the
government can block any group of numbers or specific repeaters
easily.

Cell phones do not talk to each other directly so interrupting service
should be a relatively easy matter as far as those with the know how
and authority to do so.

I would think it would be very much like blocking, or black holing a
group of IPs at, or through a specific location or locations.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

4558. Balun for printed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 02:05:44 UTC
From: martineclement@hotmail.com
Message-ID: <1cb70bc7.0403201805.65c89d6c@posting.google.com>
Source record: 97930

Hello, I am presently designing a 915MHz printed dipole that will be directly connected to a transmitter chip (one arm is directly connected to the RF pin and the other to the RF GND pin) all on the same PCB. Since the dipole is not connected to a coaxial cable, do I need a balun? Theoretically, I'm assuming I don't need one since the input to the antenna and the input to the chip are both balanced. I did some simulations with HFSS and I seem to be able to make my dipole decently resonate at the frequency (S11 is about -7dB). So I assume I don't need a balun, and I should be happy with the results. I'm just not sure I should completely rely on the simulation results. I also don't understand why S11 isn't lower at the resonant frequency.

Any feedback would be appreciated. I need to design this antenna by Monday!

Thank you!

4559. Attenuators for Direction Finding???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 02:57:14 UTC
From: thatcher <thatc4@net.com>
Message-ID: <c3j0bo02ndj@enews2.newsguy.com>
Source record: 97934

Where can I buy some attenuators to attenuate signals while Dfing?

Any good info or sources of info on the subject?

I'm going to try to do it with a HT and its S-meter.

4560. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 02:58:13 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <na2dnT4dFK_8mcDdRVn-hg@comcast.com>
Source record: 97931

That is probably like our "truth in advertising" laws. They are on the books
but poorly enforced. It is, in most cases up to the consumer to enforce
these laws by lawsuit.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c3ir40$41j$1@titan.btinternet.com...
In Europe we
> have what are known as "The Trades Description Acts" (Of parliament).
> ----
> Reg.
>
>

4561. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 03:07:30 UTC
From: YD <yd.techHAT@techie.com>
Message-ID: <jdto50lfmtps1ce6utls3ta76njmbsf5bh@4ax.com>
Source record: 97932
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

On Thu, 18 Mar 2004 00:23:20 GMT, lysander@uk2.net wrote:

>On Wed, 17 Mar 2004 13:33:06 -0800, Guy Macon
><http://www.guymacon.com> wrote:
>
>>
>>"John Michael Williams" <jwill@AstraGate.net> wrote:
>>
>>> Thus, it appears it is not feasible to create a
>>> hazardous spark with a CB at a gas station.
>>
>>> So, I think sliding over on a car seat, and thus generating a
>>> possible static charge, would be more likely to ignite gasoline
>>> vapor than talking on a cell phone while refueling.
>>
>>Excellent set of experiments! I heartily approve of anyone who
>>does an experiment rather than taking someone's word.
>>
>>Your methodology seems sound to me.
>>
>>You might try putting a couple of drops of gasoline on a ceramic
>>plate and seeing if your wire is making a spark too small to see
>>but large enough to ignite the gasoline.
>>
>>Another way of looking at it is with statistics. How many people
>>talk on cell phones while refueling? How many fuel fires occur?
>>
>>--
>>
>>|'Doc <w5lz@cwis.net> says...
>>
>>|>Turning off cell phones and radios seems like a reasonable
>>|>precaution while fueling, I don't have a problem with that.
>>|>I also don't understand why anyone else would either.
>>
>>You don't understand why someone might be unwilling to miss
>>an incoming call when there is no apparent benefit?
>
>You don't understand why the possibility of blowing the gas station to
>pieces is more important than the possibility that you might miss a
>phone call?
>

If the call is of any importance they'll call again in a little while.
I make myself available when I wish to be, not when some fool yapper
wants me to be. Also, I don't take calls when I'm on the crapper, let
them call again when I'm finished.

- YD.

--
Remove HAT if replying by mail.

4562. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 03:17:25 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <Q4KdnWQbmP18lcDdRVn-vg@comcast.com>
Source record: 97933

I won't take your statements as anything but ignorance. Have you successfully trained a radio wave to stop at your property line? It has been stated on here before (though you probably don't read anything that might make you look stupid) that any device of sufficient power to jam a cellphone is not going to be contained within the boundaries of your property line unless shielded to the point that it would be a waste of time as nothing could get in either. A part 15 device is not going to have the power to be effective, and if you up the power level, it is no longer considered a part 15 device. If you think the FCC doesn't enforce these rules, I invite you to build your little problem maker and test your idea. Be aware that intentional harmful interference is punishable buy a $10,000 fine and 5 years in prison. They don't enforce it on a regular basis but get a few from time to time just as an example. It works.
"Jack Painter" <223bthp@cox.net> wrote in message news:EzZ6c.11821$F91.5512@lakeread05...
>
> Don't mistake my comments as inviting anyone to break the law.

4563. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 03:55:59 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <405D124F.3FB65F5B@cwis.net>
Source record: 97935

Hank,
I had one for 10 meters and it worked as well as any generic 1/4 wave, sort of. Not my first choice, but if you need an unobtrusive antenna, it works, and it's better than nothing. Don't know about the 20 meter one, but the 10 meter Isotron was a real P.I.T.A. to tune.
'Doc

PS - The thing about 'snake oil', most of it contained alcohol. Drink enough of it and who cares if it works or not...

4564. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 04:39:18 UTC
From: jaroslavlipka@msn.com
Message-ID: <d7855f42.0403202039.44b751dc@posting.google.com>
Source record: 97936

nm5k@wt.net (Mark Keith) wrote in message
news:<25eb70d7.0403180829.34db72d3@posting.google.com>...
>
> Art, Just quit all this whining.
> Whine, whine, whine...Thats what gets my goat...And this whining
> involved me....MK

G'day Keith
don't know where you get the idea that Art's whining
from, but from the way i read his last post he write's like someone
who knows exactly what he has got, and what it will do and is
confident that when the time comes he can prove it,and to answer your
question "that" is what my money is on.
To put it plainly far from whining i get the impression he
was telling you to "go take a jump",
Jaro.

4565. Re: HUGE (Was: Hugh) antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 05:24:59 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <405D2757.5050108@get.lost>
Source record: 97937

Andy in NJ wrote:
> What exactly is a Hugh tower? Is it a tower owned by Hugh Grant? :)

No, Hugh Jass.

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

4566. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 06:01:54 UTC
From: exray <dontspamexray@coqui.net>
Message-ID: <c3jb4i$6e8$1@xuxa.iecc.com>
Source record: 97938
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

Dennis wrote:

>
> You're right a wwv or wwvh clock both receive and decode
> the same manner. Both wwv and wwvh transmit at 2.5, 5. 10, 15, & 20Mhz.
> There is no 60Khz on Kiuai.
>
> Dennis
>
>>**
>>* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
>>**

I'm sure they are out there but I have never seen one. Can you show me
a consumer grade WWV/WWVH synchronized clock?

-Bill M

4567. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 06:15:10 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Ppa7c.12939$F91.4325@lakeread05>
Source record: 97939

"CW" <clinton.magers@comcast.net> wrote in message
news:Q4KdnWQbmP18lcDdRVn-vg@comcast.com...
> I won't take your statements as anything but ignorance. Have you
> successfully trained a radio wave to stop at your property line? It has
been
> stated on here before (though you probably don't read anything that might
> make you look stupid) that any device of sufficient power to jam a
cellphone
> is not going to be contained within the boundaries of your property line
> unless shielded to the point that it would be a waste of time as nothing
> could get in either. A part 15 device is not going to have the power to be
> effective, and if you up the power level, it is no longer considered a
part
> 15 device. If you think the FCC doesn't enforce these rules, I invite you
to
> build your little problem maker and test your idea. Be aware that
> intentional harmful interference is punishable buy a $10,000 fine and 5
> years in prison. They don't enforce it on a regular basis but get a few
from
> time to time just as an example. It works.
> "Jack Painter" <223bthp@cox.net> wrote in message
> news:EzZ6c.11821$F91.5512@lakeread05...
> >
> > Don't mistake my comments as inviting anyone to break the law.
>

Since your deck of know-how comes from reading in these groups, it's a shame that reading is so fundamentaly difficult for some people. So read more carefully, please.

Once more, for the slow ones:

The FCC has never prosecuted anyone for blocking cellphone signals on private property.

Probably the reason that intelligent people put up with so many hacks in these groups is, in between great exchange of ideas and information, sometimes it's fun to watch arguments like yours built on wax, and see them melt into a puddle of no-return on the floor.

No business owner needs to worry about finding equipment to block my phone anyway. Unlike the rude masses that the devices are needed for, if asked not to use a cellphone, mine goes "off"

Jack

4568. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 06:41:51 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <XaSdnTfRuIRXpcDdRVn-hA@comcast.com>
Source record: 97940

Your getting desperate. Now you're making claims about things you know nothing about (actually, more that you know nothing about). My knowledge of this subject is far deeper than yours ever will be and the fact that I read this group simply proves that I read this group. Are you saying that participation in a news group implies lack of knowledge? I am not going to post my qualifications. I don't have to. The ridiculous statements you continue to make show you to be the ignorant one. I think it's about time I simply plonk you as it is becoming increasingly obvious that I am arguing with an idiot. I have better things to do.

"Jack Painter" <223bthp@cox.net> wrote in message
news:Ppa7c.12939$F91.4325@lakeread05...
>
> Since your deck of know-how comes from reading in these groups,

4569. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 06:56:01 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403202256.5e5745e1@posting.google.com>
Source record: 97941
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Guy Macon <http://www.guymacon.com> wrote in message
news:<7rednfdoKtWg3sHd4p2dnA@speakeasy.net>...
> See my post titled Intrinsic Safety

I did. Thanks.

It appears that the laws involved pertain to manufacturers
and commercial operations. So, I think none would
govern use of a cell phone while gassing up.

I once wired a farm house, but that was before the NEC
included the concept, I think.

John
jwill@AstraGate.net
John Michael Williams

4570. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 07:14:03 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <9hb7c.12967$F91.10930@lakeread05>
Source record: 97942

"CW" <clinton.magers@comcast.net> wrote
> My knowledge of
> this subject is far deeper than yours ever will be>
> "Jack Painter" <223bthp@cox.net> wrote in message
> news:Ppa7c.12939$F91.4325@lakeread05...
> >
> > Since your deck of know-how comes from reading in these groups,
>

You're an antagonist across every board, everywhere you go. Nobody cares abut the radio experience you have if you choose to fight about everything outside your experience and education. Your understanding of the law is comical. Or it would be funny if you weren't such a cantankerous old crotch that thinks his 8th grade social studies level of knowledge is meaningful in the business world. Everybody has something to contribute here, but nobody that acts like a wise guy when they can't cite law, read law, understand law, quote correctly from the same newsgroup thread, or keep a train of thought in a discussion can fool anyone about their knowledge level.

Sorry to the group that I was lured into the path so many were with CW, that of assuming the years of radio operations would translate into meaningful interaction with other people.

Jack

4571. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 07:28:38 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403202328.2d8d9ce0@posting.google.com>
Source record: 97943
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Hi Jeff.

Thanks. Comments below.

Jeff Liebermann <jeffl@comix.santa-cruz.ca.us> wrote in message
news:<mppp50ho4dr08ahkb3dlbqkcfkp0ihjn52@4ax.com>...
> On 17 Mar 2004 12:02:15 -0800, jwill@AstraGate.net (John Michael
> Williams) wrote:
>
> >However, the first radios transmitted
> >sparks, so in principle it should be possible to
> >transmit near a long wire separated by a small gap from
> >ground or another wire and get a small spark.
>
> There were few spark transmitters mounted in automobiles. They were
> just too inefficient, big, and clumsy to be functional. Transmitters
> in vehicles really didn't start until tube type transmitters became
> popular. The problem was that the typical mobile radio used a
> dynamotor (motor-generator) combination to generate the necessary high
> voltages. With the radio and dynamotor mounted in the trunk of the
> vehicle, there was a good chance that gasoline fumes would accumulate
> in the trunk of the vehicle and be ignited by the spark from the
> dynamotor commutator. See the photo of the 80D at:
> http://www.telmore.com/ka1nvz/old_two-way/motorola/49-59.html
> The dynamotor is the black cylinder near the handle. The 140D was
> twice as big and heavy.

Ships around the turn of the 20th century transmitted morse code by
spark, I think.

>
> Back in the 1960's, my 1960 Ford Falcon had an assortment of Motorola
> 80D and 140D radios in the trunk. I experienced a small explosion in
> the trunk ignited by the dynamotor. I had filled up the gas tank at
> the local gas stop (for 19 cents per gallon). Warm weather caused it
> to expand and leak vapour into the trunk. Key the transmitter, the
> dynamotor starts, sparks, and boom.
>
> >I then attached a 1.2 m monopole antenna to an oscilloscope.
> >This antenna has a Schottky hot carrier diode and impedance
> >matching resistors builtin.
>
> Lovely. A harmonic generator. Any reason you want lots of harmonics?
> Shottky diodes or any other non-linear device, do not belong in

> antenna matching circuits.
>
> >It's home made, but it's probably
> >as good as any other wire about that long.
>
> Wrong. Optimum for CB is either a 1/4 wave monopole (102 inches) or
> two of them to form a half wave dipole.
>
> >So, first conclusion: To get even a 1 V spark would take a
> >wire at least 9 m long, all somehow kept within 1 m of the
> >transmitter. Thus, it appears it is not feasible to create a
> >hazardous spark with a CB at a gas station.
>
> Find a 4 watt flourescent light. Attach a 1/4 wave antenna to your 5
> watt CB radio. Transmit. Hold lamp in hand and touch the end of the
> 102" antenna. It will light when you talk. (Note: With AM
> modulation, you only get 5 watts when you yell into the microphone.
> Without modulation, you only get about 2.5 watts of RF).

Interesting idea. I would have thought that a tube would require
more V than a neon lamp to get started. I'll try it if I can
find a lamp.

What you seem to be suggesting is that I simply connect the
lamp to the 1/4 wave receiving antenna, right? Why introduce
my hand? For ground on the other lamp contact?

I don't see the point of attaching a long
wire to the CB, because they don't come with long bare wires.
Clearly, I could get a good spark by attaching a wire to the
CB batteries, and avoid all the RF stuff!

> Now, ask
> yourself what voltage is required to light the flourescent lamp.
>
> In order to get a spark, you need to generate enough voltage to ionize
> the air between the contacts. That's about 20KV/inch. If we
> eliminate the antenna, 5 watts of RF into 50 ohms will generate:
> P = E^2 / R
> E = 16v rms
> E(peak) = 1.4 * 16 = 22 volts
> The gap necessary to create an arc with 22 volts is:
> 22V / 20,000V/in = 0.001 inches
> Kinda small, but given a microscope, a 1 mil spark gap will arc. Of
> course the VSWR protection circuity in the transmitter will instantly
> shut down the transmitter when it arcs, but that takes a few millisec.

22 V is a lot more than I could get with a 1 m monopole: I only
got 100 mV peak to peak. It appears my 1 m wires
were too short; but, if I use a long wire, the distance from the
transmitter will lower the power transfer to some
of the wire, won't it? Or, I'll have to move away, into the

far field--but that will also lower the power.

There's no question 5 W is enough to make a spark of arbitrary
size, given an inductor somewhere around, but I don't see where
the 50 ohms comes from, if I'm looking for a spark caused by the RF?

>
> Notice that this is a voltage phenomenon, and is not dependent upon
> the power level. Therefore, an antenna that offers a voltage step-up
> will generate a higher voltage. However as the antenna is in the air
> and nowhere near a close enough ground to arc, it doesn't matter. If
> there's gonna be any arcing, it will be between the xmitter output and
> the base of the antenna.

The transmitter antenna is coated with about 3 mm of rubber; I think
cell phones are the same way. A spark has to come from the RF,
I think. There is a BNC connector, but that implies complete
shielding (even flame suppression!) at the antenna base.

I have a telescoping antenna intended for a receiver that is bare
metal, though. I could substitute it.

>
> The typical mobile FM transmitter of the day (1960's) cranked out
> between 15 and 150 watts. Most were around 75 watts. Run the calcs
> again for 75 watts and see if the gap is more reasonable (I'm lazy).
>
> The next question is how much heat is necessary from the arc to ignite
> the gasoline vapour. I'll leave that as an exercise for when I have
> more time to burn. Gotta get back to lying and cheating on my taxes.

I think if I can see the spark, it can ignite gas vapor,
provided the flame had a path out of the gap.

John
jwill@AstraGate.net
John Michael Williams

4572. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 07:35:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e6gq505sr2124gcf3i2967cceuu1d8n0so@4ax.com>
Source record: 97944

On 20 Mar 2004 20:39:18 -0800, jaroslavlipka@msn.com (jaroslav lipka) wrote:

>and is confident that when the time comes he can prove it

Hi Jaro,

I presume by this you haven't any idea how it could be proven yourself?

You obviously don't know when that "time" will be either.

I hear one of the biggest off track betting houses in Britain has closed its books on taking bets about "is there life on Mars?" The interviewer asked them about bets laid in the late 60's at a 1000:1 that may offer a return soon - if the bettor hadn't passed on in the mean "time" that is. Take a lesson from this and if you have your money riding on Art, be sure to save the betting slip where your inheritors don't mistake it for a worn shopping list tucked into the bottom of the pocket in your cardigan.

I would quote something about Time's Wingï¿½d Chariot drawing near, but that would ruffle the feathers of those who hate English Culture. Art likens it to fractured English (?) - such ambivalence.

73's
Richard Clark, KB7QHC

4573. Re: Attenuators for Direction Finding???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 07:39:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pchq50du2bbj1vet9932h0isg7i7bbac57@4ax.com>
Source record: 97945

On Sat, 20 Mar 2004 18:57:14 -0800, thatcher <thatc4@net.com> wrote:

>Where can I buy some attenuators to attenuate signals while Dfing?
>
>Any good info or sources of info on the subject?
>
>I'm going to try to do it with a HT and its S-meter.

Hi Thatcher,

The S-meter on most FM handhelds are miserable poor indicators,
basically useful only as "busy" indicators.

Connect your sniffer antenna to a detector circuit feeding a good
digital voltmeter, and put a 300 Ohm variable resistor ahead of the
detector. The "good" digital voltmeter doesn't even have to be that
good.

73's
Richard Clark, KB7QHC

4574. Re: Balun for printed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 07:47:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <blhq509tpftqhsrnehvqrvq241uc0gjar5@4ax.com>
Source record: 97946

On 20 Mar 2004 18:05:44 -0800, martineclement@hotmail.com (Marty)
wrote:
>Any feedback would be appreciated. I need to design this antenna by
>Monday!
>
>Thank you!

Hi Marty,

Expecting miracles are we?

Just do it and live with the results. As for it being balanced, that is arguable, but only as a philosophical reward. Even if it wasn't you would still be radiating power. The S11 parameters are of interest only to an academic - is this a practical problem? If so and analysis has you in suspended animation, your customer already has one foot out the door.

The ream of questions that lie behind this appeal are more compelling.

Do you have a power budget (does this have to be 100% efficient)?

Is there a directionality requirement?

.... I won't go into others, these two are enough to kill any application.

73's
Richard Clark, KB7QHC

4575. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 07:57:48 UTC
From: Jeff Liebermann <jeffl@comix.santa-cruz.ca.us>
Message-ID: <ofhq50dfqlmeto169hrsj8f3e0n8eaab09@4ax.com>
Source record: 97947
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On 20 Mar 2004 23:28:38 -0800, jwill@AstraGate.net (John Michael Williams) wrote:

>Ships around the turn of the 20th century transmitted morse code by
>spark, I think.

The Lusitania, Mauritania, Titanic, and Olypic all ran on coal. No gasoline in sight. Later vessels ran on bunker C fuel oil, which is more like tar than gasoline. I don't think one has to worry about sparks on such a vessel unless it's finely devided coal dust, which finished off the Lusitania in a secondary explosion after the torpedo.

>Interesting idea. I would have thought that a tube would require
>more V than a neon lamp to get started. I'll try it if I can
>find a lamp.

Neon lamp needs about 60 volts to light and 40 volts to stay lit. The 4 watt flourescent tube wants at least 90 volts to start, and I think (i.e. guess) about 50 volts to stay lit.

>What you seem to be suggesting is that I simply connect the
>lamp to the 1/4 wave receiving antenna, right? Why introduce
>my hand? For ground on the other lamp contact?

Yep. You're the ground. You should be fine with a 5 watt CB and a 1/4 wave whip. The high voltage point is near the tip. However, don't try it with an illegal CB linear. You'll get an RF burn for your troubles.

Incidentally, there are cell phone antennas with lights in them.
http://cellphones-accessories.com/12stobligcel.html
They're LED's which require much less power to light than a 4 watt flourescent bulb. Still, it's kinda interesting.

>I don't see the point of attaching a long
>wire to the CB, because they don't come with long bare wires.
>Clearly, I could get a good spark by attaching a wire to the
>CB batteries, and avoid all the RF stuff!

Exactly. Same with an open relay contact or toggle switch. However, don't foget that you need containment to create an explosion. Sparking the DC inside the trunk is the mostly likely location.

>22 V is a lot more than I could get with a 1 m monopole: I only
>got 100 mV peak to peak.

The 22 volts peak is at the RF connector. I'm assuming that if there is a spark gap, it will be in the coax cable or associated antenna connectors.

>It appears my 1 m wires
>were too short; but, if I use a long wire, the distance from the
>transmitter will lower the power transfer to some
>of the wire, won't it? Or, I'll have to move away, into the
>far field--but that will also lower the power.

Inverse square law. Double the distance, and you get 1/4 the power. For a fix load resistance, 1/4 the power is 1/2 the voltage. However, you'll get vary bad coupling efficiency with such an arrangement. I could grind the near field equations but you'll never get ALL the power (5 watts) delived to your random wire pickup. Think resonance and close coupling if you want to do better.

>There's no question 5 W is enough to make a spark of arbitrary
>size, given an inductor somewhere around, but I don't see where
>the 50 ohms comes from, if I'm looking for a spark caused by the RF?

That's the approximate impedance of the antenna as found on a typical mobile installation. Again, I'm assuming that if there is a spark to be found, it will be at the coax ends or connectors. They're all 50 ohms.

>The transmitter antenna is coated with about 3 mm of rubber; I think
>cell phones are the same way. A spark has to come from the RF,
>I think. There is a BNC connector, but that implies complete
>shielding (even flame suppression!) at the antenna base.

A BNC connector is quite open but is good for maybe 150 volts of RF. However, all it takes is a sloppy coax connection, with some of the braid wires slopped around near the center pin of the BNC, and you have a potential spark gap.

>I have a telescoping antenna intended for a receiver that is bare
>metal, though. I could substitute it.

Won't make much differnce. At 0.001" gap necessary for a spark with 5 watts can only happen with a defective installation.

>I think if I can see the spark, it can ignite gas vapor,
>provided the flame had a path out of the gap.

I beg to differ. The ignition of a gasoline oxygen mixture requires a specific amount of energy to ignite. Anything less will not produce the requiste chemical reaction. Think spark plug heat ranges and glow plugs in model airplanes. I'll grind the numbers if you want, but it's now midnight, I'm tired of waiting for Windoze update, and I'm going home.

--
Jeff Liebermann 150 Felker St #D Santa Cruz CA 95060
831.336.2558 voice http://www.LearnByDestroying.com

```
# jeffl@comix.santa-cruz.ca.us
# 831.421.6491 digital_pager jeffl@cruzio.com AE6KS
```

4576. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 08:47:34 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <9nrqPFCmaVXAFwWE@jmwa.demon.co.uk>
Source record: 97948
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that Jeff Liebermann
<jeffl@comix.santa-cruz.ca.us> wrote (in <mppp50ho4dr08ahkb3dlbqkcfkp0ih
jn52@4ax.com>) about 'CB Radios, Cellphones and Gasoline Vapor
Ignition', on Sun, 21 Mar 2004:
>The gap necessary to create an arc with 22 volts is:
> 22V / 20,000V/in = 0.001 inches Kinda small, but given a microscope,
>a 1 mil spark gap will arc.

But it takes about 350 V to do so. The relationship between voltage and
gap length is very non-linear below about 500 V.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4577. Re: degen BBQ lobe ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 10:15:32 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <405d6b3d$1_2@news.vo.lu>
Source record: 97949

Hi Guenther,

I had the right values here
http://www.astrosurf.com/lombry/qsl-portable3.htm

Thanks.
Thierry

"G&R" <spam@limbo.hell> wrote in message
news:2w27c.26786$Eb6.866508@news20.bellglobal.com...
> Hi Thierry,
>
> Thank you for pointing this out, I'll post some plots in the next couple
of
> days.
>
> You will find that, if you download the TCA article it does show some
plots.
>
> While we are proud of the 11dBi gain, it must be correctly reference to a
> dipole and the gain is about 4dBd (depending on the band). This is
mainly
> do to the reason that we compare our modelled antenna with the modelled
> Dipole (on the same software) to give fair value. This ensure any form
of
> errors in gain are cancelled out correctly instead of using the typical
> 2.1dbi value for a Dipole and providing a falsely unrealistic value.
>
> I'll also send you a copy of the charts for your records.
>
> 73,
> Guenther VE3CVS
> info@degendesigns.com
> www.degendesigns.com
>
>
> > Hi,
> >
> > I 'd like to know what is the opening of the Degen BBQ main lobe
> (2-element
> > HF quad).
> > Even the manufacturer website doesn't provide this info, only the gain,
11
> > dBi.

> >
> > Maybe something like 30° wide ? Can someone confirm ?
> >
> > Thanks in advance
> >
> > 73
> > Thierry, ON4SKY
> > http://www.astrosurf.com/lombry
> >
> >
>
>

4578. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 11:00:13 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-621379.05001321032004@newssvr22-ext.news.prodigy.com>
Source record: 97950

Thanks to Irv and others that responded. I plan to remove the Control Unit from the rats nest on Monday and try spraying the Calibration pot.

I still do not understand the function of the Calibration control? It is a push in/out (maybe for on/off) and trim pot for setting the meter. It has very little control over the needle. At best it does a few degrees to help zero in on South.

Irv, where is the wireround pot you mentioned?

Thanks again to all that responded.

Dick - AA5VU

In article <405BAA8F.8ED602C5@shaw.ca>, Irv Finkleman <finkirv@shaw.ca> wrote:

> There is a wirewound pot in the rotator unit which tends to get dirty
> and can lead to erratic readings as well. You can clean it pretty well
> with a little very fine grit paper, or contact cleaner. It is this
> pot which tells the meter which direction the antenna is pointing. I
> also saw one which opened up at one end and had to be replaced. That
> way way back when, but you should be able to order the part. Replacement
> is easy. If you do replace it, give it a little spray of contact
> cleaner before reassembling the rotor unit.
>
> Hope this helps...
>
> Irv VE6BP

4579. New EM spectrum 31.2 mHz - 6.52 EHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 12:17:10 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <405d87c0_1@news.vo.lu>
Source record: 97951
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx

HI,

My friend Anthony did a new version of the electromagnetic spectrum from 31.2 mHz to 6.52 EHz but this time placing the bands on straight lines instead of tilted ones. Here is the result : http://unihedron.com/projects/spectrum/spectrum_straight.pdf

Bookmark http://unihedron.com/projects/spectrum/ as this version will soon be updated to take into account new corrections (like medical devices at 405 MHz, etc).

A few other bandplans and frequencies allocations are available at this address : http://www.astrosurf.com/lombry/qsl-download.htm

73
Thierry, ON4SKY

4580. Re: New EM spectrum 31.2 mHz - 6.52 EHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 12:44:47 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <47g7c.23395$uh.10670@fed1read02>
Source record: 97952
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx

"Thierry" <To answer me in private use
http://www.astrosurf.com/lombry/post.htm> wrote in message
news:405d87c0_1@news.vo.lu...
> HI,
>
> My friend Anthony did a new version of the electromagnetic spectrum from
> 31.2 mHz to 6.52 EHz but this time placing the bands on straight lines
> instead of tilted ones. Here is the result :
> http://unihedron.com/projects/spectrum/spectrum_straight.pdf
>
> Bookmark http://unihedron.com/projects/spectrum/ as this version will soon
> be updated to take into account new corrections (like medical devices at
405
> MHz, etc).
>
> A few other bandplans and frequencies allocations are available at this
> address : http://www.astrosurf.com/lombry/qsl-download.htm
>
> 73
> Thierry, ON4SKY
>
>

That's nice graphics. However, what's that reference to "X Band" at about
1.73 MHz?

Ed
wb6wsn

4581. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 12:53:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3k391$b1t$1@sparta.btinternet.com>
Source record: 97953

UK Trade Description Act, 1968.

It is an offence for a trader to apply a false or misleading description to goods. (Note it is the trader, not the manufacturer, who is involved.)

All goods are covered except houses.

The local (the Council) Trading Standard Authorities are under a statutary duty to enforce the act. The local Trading Standards Officer has powers of entry, inspection and seizure of goods.

It is not the job of the Authority to obtain compensation for the offence but to take steps necessary to prevent others from being deceived such as confiscation of goods from shops.

It is up to the purchaser to take action in the civil courts for compensation. With the support of the Authority he will very likely succeed.

But for the sake of a falsely-described, $10, second-hand radio antenna is it worth the trouble?

The Trading Standards Officer would have to engage the services of consultant radio engineers to conduct prolonged and expensive field trials in order to prove the point.

A court of law would not accept a mere statement of Maxwells equations or any of Terman's or Kraus's learned dissertations. A bewigged judge, of course, would be well advised to seek the opinions to be found on this newsgroup.

Reg, G4FGQ

4582. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 13:34:19 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <vRg7c.23399$uh.53@fed1read02>
Source record: 97954

"Jack Painter" <223bthp@cox.net> wrote in message
news:cC_6c.11826$F91.235@lakeread05...
>
> "Ed Price" <edprice@cox.net> wrote
> > "Jack Painter" <223bthp@cox.net> wrote in message
> > > Mostly one sea-lawyer's rant in this group, was that it is illegal to
> > > interfere with any radio signal, etc. That opinion is absent of
> > > understanding the intent of that law, or where it may be applied.
> > >
> > > On private property, one may install any device, counter-signal,
> > shielding,
> > > etc that prevent or otherwise render inoperable any other signal that
> > enters
> > > or tries to leave that property.
> >
> >
> > Your wishes do not carry the force of law. Certainly, you may shield
your
> > property from unwanted emissions. However, can you cite any allowance
for
> > deliberate jammers, especially for a licensed service, in the CFR?
> >
> > Ed
> > wb6wsn
> Ed,
>
> Don't mistake my comments as inviting anyone to break the law. But also
> avoid the trap of thinking that permission from the government is required
> in order for you to act.
>
> I've noticed that good Amateur Radio operators behave in a most
responsible
> fashion, proud of the responsiblity and mindful of the consequences of
radio
> operation. But the word priviledge is something reserved for a
> self-regulated hobby like amateur radio, not the law. The law and the
> constitution do not grant citizens "priviledges".
>
> In a previous part of this thread a member already gave the example of
> intentional radiators (low power) allowed. If that (part 15 ?) exemption
was
> not there, it would still not make the force of law any more permissable
for
> government to interfere with the rights of a property owner, as long as

(he)
> was not harming interstate commerce, which is the currently used
> (wider-than-hell and not always defendable) definition for every new
> encroachment on our Constitution. Patriot act definitions will probably
not
> survive long enough to be tried in a court, but if they were the standard,
> even the rumour that you were thinking about signals would subject you to
a
> search.
>
> 73's,
>
> Jack

You should avoid the trap of thinking, since you are a good guy and a ham and a citizen, that you have any right to emit electromagnetic energy. Your government has seen fit to enact legal restrictions on emission of electromagnetic energy, over a broad frequency range. Perhaps you think you have some inalienable right to emit as you please; if so, you are placing yourself in a bizarre legal area usually inhabited by the kooks who claim that the Federal income tax is illegal.

First, let's address rights. Our Constitution says nothing about electromagnetic energy. However, it does authorize the Federal government to regulate interstate commerce. The Communications Act of 1934 clearly identifies the electromagnetic spectrum to be a national resource, usable for commerce, and by the physics of the medium, quite certainly interstate. If you don't agree with that, then vote the rascals out! But be aware that there seems to be an infinite supply of rascals!

So, now that the Feds are in control of the spectrum, they proceed to authorize specific and limited usage of that national resource. The Feds call this Licensing and Authorizing. Notice how this keeps "title" reserved to the Feds? You only get what they allow you; you have no "right" to the resource.

To ease the policing requirements, the FCC allows certain unlicensed emitters. And they don't meddle, so long as violators of the privilege are not egregious. OTOH, as the IRS demonstrates every year, compliance by intimidation really works. Abuse your privilege, by use of higher power, bigger antennas, operation in a guarded frequency (not even low power Part 15 emitters may emit on emergency or certain satellite and research frequencies), or by harming a licensed service in any way, and you will be squashed flat by the majesty of the Federal bureaucracy.

Now, it's my opinion that a property owner has the right to control his property in such a way as to exclude external electromagnetic energy. I also think he has the obligation to warn everyone that he allows onto his property that he is doing said exclusion. However, when your property is used by the general public (a theater, a golf course, a stadium), then you must realize that exercise of your rights is often guided and constrained by Federal law. Currently, I don't think there is any Federal regulation that

addresses exclusion of EM energy from quasi-public locations. So that means that case law will be created by nasty (and sometimes minutely absurd) lawsuits probing the boundaries and limits of what you can and can't do. Opine all you wish, but, unless you like to bleed, you don't want to be on the cutting edge of this procedure.

Ed
wb6wsn

4583. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 13:45:45 UTC
From: bill.sloman@ieee.org
Message-ID: <7c584d27.0403210545.76dad16b@posting.google.com>
Source record: 97955
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jeff Liebermann <jeffl@comix.santa-cruz.ca.us> wrote in message
news:<ofhq50dfqlmeto169hrsj8f3e0n8eaab09@4ax.com>...
> On 20 Mar 2004 23:28:38 -0800, jwill@AstraGate.net (John Michael
> Williams) wrote:

<snipped lots of good stuff>

> >I think if I can see the spark, it can ignite gas vapor,
> >provided the flame had a path out of the gap.
>
> I beg to differ. The ignition of a gasoline oxygen mixture requires a
> specific amount of energy to ignite. Anything less will not produce
> the requiste chemical reaction. Think spark plug heat ranges and glow
> plugs in model airplanes. I'll grind the numbers if you want, but
> it's now midnight, I'm tired of waiting for Windoze update, and I'm
> going home.

The ignition of a gaseous oxygen-gasoline mixture, or a (potentially
more sensitive) hydrogen-oxygen mixture does require a specific
minimum amount of energy, which depends on the partial pressures of
the oxygen and the fuel, and - IIRR - the partial pressures of any
inert diluent gases around.

Lesser amounts of energy can induce the requisite chemical reaction,
but the reaction will fizzle out, rather than providing enough energy
to ingnite the surrounding shell of a gas mixture and produce a
self-propagating flame front.

The controlling relationship is between the volume of the sphere in
which the reaction is first initiated, and the surface area of that
sphere - if the intial volume is too small, not enough energy is
released to heat the surrounding shell of gas to the ignition
temperature.

Once you've got the basic idea,the thermodynamics is pretty
straightforward.

I had to work through the equations many years ago for an experiment
intended to monitor the process in which one of the "Dewar benzenes"
converted itself to normal - Kekule's - benzene, which is an
enormously energetic process, involving about an order of magnitude
more energy per molecule than you get out of TNT and PETN. I really
didn't want to blast my experimental apparatus to smithereens.

When I went through the calculations with my supervisor, he pulled a
very long face - the motivation for the experiment had been some

unexpected flashes of light seen when a dumb organic chemist had released small drops of liquid "Dewar benzene" into a hot cell, and my calculations made it clear that the flashes of light were just thermal radiation from a hot plasma, rather than fluorsecence from from an electronically excited state of Kekule benezene, which is what my supervisor had been hoping for ...

For the difference between Dewar benzene and Kekule benzene see

http://www.chemsoc.org/exemplarchem/entries/2001/robson/benzenering.htm

---
Bill Sloman, Nijmegen

4584. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 14:13:13 UTC
From: jaroslavlipka@msn.com
Message-ID: <d7855f42.0403210613.d316811@posting.google.com>
Source record: 97956

Richard Clark <kb7qhc@comcast.net> wrote
>
> Hi Jaro,
>
> I presume by this you haven't any idea how it could be proven
> yourself?

G'day Richard

Why am i not surprised you jumped in. As i have
stated before i know very little about Antenna's, but i do consider
myself a reasonable judge of people.
I first came across this group about two years ago and what caught
my attention then was a post you made where you were attempting to
ridicule where Art had sugested putting a feed on an Antenna (i
believe it was a Moxon)and in a later post Ian White confirmed it was
the correct position.
Since then i have seen you and one or two others miss no
opportunity to attack and denigrate his posts and him personaly.
Over the same period i have seen Art gaining more and more
confidence with every post he made culminating in his last post to
this thread combined with his posts to the Q thread where he was
saying in my opinion, He knows what he has got and he knows what it
can do and what is more he can prove it,so he does not need to take
any more crap from you.
You ask for facts and figures,why should he supply them when
judging from your previous posts you have already decided whatever he
claims he is wrong.

The temperature here is 40c and is forecast to stay the same for
another three days,is it possible all this hot air is eminating from
your direction across the Pacific.

Jaro.

4585. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 14:13:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3k7u3qop1@titan.btinternet.com>
Source record: 97957

I've just had a look in Google at the manufacturer's so-called specification for the Isotron.

Very carefully, nothing is said which could cause dispute.

But there's no mention of by-far the most important characteristic - radiating efficiency!

There's no law against NOT mentioning anything. This is precisely where the manufacturer/trader has the advantage over a prospective gullible ignorant customer.

Quality is a measure of conformance to the intended (as specified and agreed) purpose.

If a buyer with a fistful of cash doesn't know what he wants he can't complain if he doesn't get it.

Reg.

4586. Re: Attenuators for Direction Finding???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 14:51:35 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <dqKdnRGt6_R0NsDdRVn-tw@comcast.com>
Source record: 97958

"thatcher" <thatc4@net.com> wrote in message
news:c3j0bo02ndj@enews2.newsguy.com...
> Where can I buy some attenuators to attenuate signals while Dfing?
>
> Any good info or sources of info on the subject?
>
> I'm going to try to do it with a HT and its S-meter.

You can get a "VCR attenuator" at radio shack for $6 or so.
It's not a lab quality device, but it's quite servicable.

One other thing to be aware of, most HTs cases are rather transparent, so attenuation becomes ineffective pretty quickly, and the directional pattern dissolves, as your signal level from the antenna approaches what's leaking through the case and shielding of the HT.

4587. Re: Balun for printed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 15:02:52 UTC
From: Helmut Wabnig <hXXXwabnig@aXXXon.at>
Message-ID: <vgbr50hs4d6m0g1f7l8unvk9k7d4gl6n9v@4ax.com>
Source record: 97959

On 20 Mar 2004 18:05:44 -0800, martineclement@hotmail.com (Marty)
wrote:

>Hello, I am presently designing a 915MHz printed dipole that will be
>directly connected to a transmitter chip (one arm is directly
>connected to the RF pin and the other to the RF GND pin) all on the
>same PCB. Since the dipole is not connected to a coaxial cable, do I
>need a balun? Theoretically, I'm assuming I don't need one since the
>input to the antenna and the input to the chip are both balanced. I
>did some simulations with HFSS and I seem to be able to make my dipole
>decently resonate at the frequency (S11 is about -7dB). So I assume I
>don't need a balun, and I should be happy with the results. I'm just
>not sure I should completely rely on the simulation results. I also
>don't understand why S11 isn't lower at the resonant frequency.
>
>Any feedback would be appreciated. I need to design this antenna by
>Monday!

Transmitting from EARTH to MOON?
Or rather from Mummy's kitchen to Dummy's bedroom?

Your design will be ok, I guess, as you described it.

w.

4588. Re: Blocking cell signals can be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 15:48:51 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <EPi7c.12998$F91.3767@lakeread05>
Source record: 97960

"Ed Price" <edprice@cox.net> wrote
> > government to interfere with the rights of a property owner, as long as
> (he)
> > was not harming interstate commerce, which is the currently used
> > (wider-than-hell and not always defendable) definition for every new
> > encroachment on our Constitution.
> > 73's,
> >
> > Jack
>
> You should avoid the trap of thinking, since you are a good guy and a ham
> and a citizen, that you have any right to emit electromagnetic energy.
Your
> government has seen fit to enact legal restrictions on emission of
> electromagnetic energy, over a broad frequency range. Perhaps you think
you
> have some inalienable right to emit as you please; if so, you are placing
> yourself in a bizarre legal area usually inhabited by the kooks who claim
> that the Federal income tax is illegal.
>
> First, let's address rights. Our Constitution says nothing about
> electromagnetic energy. However, it does authorize the Federal government
to
> regulate interstate commerce. The Communications Act of 1934 clearly
> identifies the electromagnetic spectrum to be a national resource, usable
> for commerce, and by the physics of the medium, quite certainly
interstate.
> If you don't agree with that, then vote the rascals out! But be aware that
> there seems to be an infinite supply of rascals!
>
> So, now that the Feds are in control of the spectrum, they proceed to
> authorize specific and limited usage of that national resource. The Feds
> call this Licensing and Authorizing. Notice how this keeps "title"
reserved
> to the Feds? You only get what they allow you; you have no "right" to the
> resource.
>
> To ease the policing requirements, the FCC allows certain unlicensed
> emitters. And they don't meddle, so long as violators of the privilege are
> not egregious. OTOH, as the IRS demonstrates every year, compliance by
> intimidation really works. Abuse your privilege, by use of higher power,
> bigger antennas, operation in a guarded frequency (not even low power Part
> 15 emitters may emit on emergency or certain satellite and research
> frequencies), or by harming a licensed service in any way, and you will be

> squashed flat by the majesty of the Federal bureaucracy.
>
> Now, it's my opinion that a property owner has the right to control his
> property in such a way as to exclude external electromagnetic energy. I
also
> think he has the obligation to warn everyone that he allows onto his
> property that he is doing said exclusion. However, when your property is
> used by the general public (a theater, a golf course, a stadium), then you
> must realize that exercise of your rights is often guided and constrained
by
> Federal law. Currently, I don't think there is any Federal regulation that
> addresses exclusion of EM energy from quasi-public locations. So that
means
> that case law will be created by nasty (and sometimes minutely absurd)
> lawsuits probing the boundaries and limits of what you can and can't do.
> Opine all you wish, but, unless you like to bleed, you don't want to be on
> the cutting edge of this procedure.
>
>
> Ed
> wb6wsn
>

Very well said, and I'm on the same page with you in all respects, save for the minor point of duty to inform. As you also reminded us, that duty would be driven more by avoidance of civil action but makes it just as important for a business to comply with. I also mentioned earlier that some (most?) States could or would pass laws requiring that duty.

Best regards,

Jack

4589. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 15:55:11 UTC
From: Guy Macon <http>
Message-ID: <BaadnX99EJF5J8DdRVn-hg@speakeasy.net>
Source record: 97961
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

John Michael Williams <jwill@AstraGate.net> says...
>
>Guy Macon <http://www.guymacon.com> wrote...

>> See my post titled Intrinsic Safety
>
>I did. Thanks.
>
>It appears that the laws involved pertain to manufacturers
>and commercial operations. So, I think none would
>govern use of a cell phone while gassing up.

I agree. If Intrinsic Safety rules were applied, automobiles
would be banned from gasoline stations. This would not only
eliminate the 35 refueling fires that occur every year, but
would also eliminate most of the 50,000 traffic accident
fatalities...

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4590. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 16:03:26 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <KpRHs$DOzbXAFwRZ@jmwa.demon.co.uk>
Source record: 97962
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that Bill Sloman <bill.sloman@ieee.org>
wrote (in <7c584d27.0403210545.76dad16b@posting.google.com>) about 'CB
Radios, Cellphones and Gasoline Vapor Ignition', on Sun, 21 Mar 2004:
>For the difference between Dewar benzene and Kekule benzene see
>
>http://www.chemsoc.org/exemplarchem/entries/2001/robson/benzenering.htm

Dewar benzene can actually be made? Do you know when it was discovered?
What about the prismatic form? I would have thought that was a lot
easier to make, if I didn't have a suspicion that that is where simple
bonding ideas break down.

--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4591. Re: New EM spectrum 31.2 mHz - 6.52 EHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 16:31:08 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <405dc345$1_1@news.vo.lu>
Source record: 97963
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx

"Ed Price" <edprice@cox.net> wrote in message
news:47g7c.23395$uh.10670@fed1read02...
>
> "Thierry" <To answer me in private use
> http://www.astrosurf.com/lombry/post.htm> wrote in message
> news:405d87c0_1@news.vo.lu...
> > HI,
>...
>
> That's nice graphics. However, what's that reference to "X Band" at about
> 1.73 MHz?

Info:
X-Band stands for Extended band. AM radio stations only went to 1600 many
years ago then the AM-band was recently extended to 1700. You may not find
many stations there yet, or they will only become available at night.

Thierry
>
> Ed
> wb6wsn
>

4592. HF MOBILE OF THE MONTH

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 16:34:24 UTC
From: BJ <webmaster@k2bj.com>
Message-ID: <kuj7c.44813$Fh4.12314@twister.nyroc.rr.com>
Source record: 97964

Submit your photos for April's feature:
http://www.k2bj.com

4593. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 16:58:20 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <405DC8CD.85CAB9@shaw.ca>
Source record: 97965

"Dick, AA5VU" wrote:
>
> Thanks to Irv and others that responded. I plan to remove the Control
> Unit from the rats nest on Monday and try spraying the Calibration pot.
>
> I still do not understand the function of the Calibration control? It
> is a push in/out (maybe for on/off) and trim pot for setting the meter.
> It has very little control over the needle. At best it does a few
> degrees to help zero in on South.
>
> Irv, where is the wireround pot you mentioned?
>
> Thanks again to all that responded.
>
> Dick - AA5VU

Dick, the pot I refer to is in the Rotor -- not the control unit. It is not the calibration control pot which is in the control unit, but rather the pot in the rotor itself. If you open the rotor, you can't miss it, it is at the highest point and has a large copper wiper arm. Still, it wouldn't hurt to spray the calibration pot just in case although I have never heard of any problems with that particular pot.

I presume you have a manual -- if you look at the interconnection between the control unit and the rotor unit you will see how the pot in the rotor sends the position down to the control unit.

When you open the rotor, be very careful as there is a large bearing with balls about 3/8 inch diameter some of which may fall out. They are easy to set in place, but if you are working in an area where they can roll off the workbench into awkward places -- which Murphy's Law says they will -- the job is more difficult.

Also note the relative position of things because incorrect assembly of the mechanical linkage between top and bottom will result in big problems. If you are reasonably mechanically adept, you shouldn't have any problem.

You might even consider asking around among the local hams -- there are probably a few who have already been inside one and would be willing to share their expertise.

Once you have fixed things up you will find the calibration control has considerable control over the meter setting.

I hope this helps!

Irv VE6BP

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4594. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 17:06:38 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <405DCAC5.AA64EADD@shaw.ca>
Source record: 97966

Reg Edwards wrote:
>
> I've just had a look in Google at the manufacturer's so-called specification
> for the Isotron.
>
> Very carefully, nothing is said which could cause dispute.
>
> But there's no mention of by-far the most important characteristic -
> radiating efficiency!
>
> There's no law against NOT mentioning anything. This is precisely where the
> manufacturer/trader has the advantage over a prospective gullible ignorant
> customer.
>

Unfortunately, the enthusiastic ham, most of whom have only a rudimentary knowledge of antennas, is always looking for something that will help him get his signal out. It is not so much that he is gullible or ignorant, but desires to get his signal on the air in the easiest way possible. I've been hamming since 58, spent my whole navy career in communications and electronics, and after retiring became a journeyman technician -- and I am often tempted to try some of these gadgets. Thanks to rec.radio.amateur.antenna I have learned enough to know what is worth trying, and what is not.

Irv VE6BP

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4595. Tracking down noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 18:09:08 UTC
From: ricknj10@hotmail.com
Message-ID: <405dd8ae.20575859@news.optonline.net>
Source record: 97967

I am trying to locate the source of power line noise in my
neighborhood. I drove around with a 10 meter am receiver with a base
loaded vertical on the car and found the noise source is hard to
pinpoint. Possibly this is because the noise is being conducted along
the power line? What is the best way to locate the source.
I am assuming if I can tell the power company that I am certain of the
pole (cracked insulator ?) that is causing the problem I stand a
better chance of getting action.
A related question - IF I was to find the pole where the noise
originates is there any chance of being able to actually see arcing
occurring?

Rick K2XT
ricknj10@hotmail.com

4596. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 18:54:57 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <5yl7c.2824$QS2.720@nwrddc03.gnilink.net>
Source record: 97968

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:so37c.696$Ve2.135@newssvr23.news.prodigy.com...
> If I'm treading old ground please excuse the post. Today at the local
> hamfest I ran across a 20 meter Isotron that the seller touting. After
> looking at its simplicity and hearing how great it was I couldn't resist
> because it was only $10.00. So now that I have it, I'm curious as to the
> theory behind it and how an 89 turn coil of No. 12 wire on a 3/4" piece of
> PVC along with a 12" aluminum rod and a couple of aluminum plates can load
> and dissipate 1000 watts. I've seen their ads for years and always
thought
> they were snake oil but at $10.00 I bit. Anyone really know the theory
> behind these things?
> tnx
> Hank WD5JFR
>
> Hi Hank,

I seem to recall an analysis of the antenna on AntennaEX that showed the
vast majority of the radiation occurs from the outside of shield the
coaxial cable from the antenna to the rig.

Dale W4OP

4597. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 19:08:39 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403211108.29cafba@posting.google.com>
Source record: 97869
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

bill.sloman@ieee.org (Bill Sloman) wrote in message
news:<7c584d27.0403210545.76dad16b@posting.google.com>...
> ...
>
> The controlling relationship is between the volume of the sphere in
> which the reaction is first initiated, and the surface area of that
> sphere - if the intial volume is too small, not enough energy is
> released to heat the surrounding shell of gas to the ignition
> temperature.
>
>...
> -------
> Bill Sloman, Nijmegen

This makes sense. I think I can see a spark 0.1 mm in
radius, at say 4000 K. That's about 4 cubic picometers
in volume and about 0.1 square micron in surface area (assuming
sparks have smooth surfaces). But, I'm not sure how to relate
that to the threshold of flame propagation.

If energy is a factor, rather than power, the duration of
the spark would seem to be relevant, too.

John
jwill@AstraGate.net
John Michael Williams

4598. Re: degen BBQ lobe ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 19:25:27 UTC
From: richardharrison@webtv.net
Message-ID: <20275-405DEC27-281@storefull-3255.bay.webtv.net>
Source record: 97870

Guenther, VE3CVS wrote:
"This ensure any form of errors in gain are cancelled out correctly
instead of using the typical 2.1 dbi value for a Dipole and providing a
falsely unrealistic value."

Gain is always measured with respect to some reference antenna. The
isotropic is a hypothetical antenna so the usual practice is to use a
1/2-wavelength reference antenna. Gain is a power ratio which is equal
to the voltage ratio squared. When dBd or some other reference is not
specified, dBi is presumed.

Kraus says the 1/2-wavelength resonant antenna`s gain over the isotropic
is 1.64. This appears on page 454 of the 1950 edition of "Antennas".
Terman was Kraus` consulting editor.

Terman says the same as Kraus on page 871 of the 1955 edition of
"Electronic and Radio Engineering". Directive gain ignores losses.
"Power Gain" as wsed to determine effective radiated power takes into
account loss in the antenna used. The reference antenna is considered
lossless.

The dB gain figure calculated from a 1.64 power ratio is shown on page
2-12 of the 19th edition of the ARRL Antenna Book. Gain in the
1/2-wavelength dipole`s best direction is shown as 2.14 dBi.

0 dBd is identical to 2.14 dBi. No false or unrealistic values obtain
from using either reference.

Best regards, Richard Harrison, KB5WZI

4599. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 19:47:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q9or505eq6jj53m5fg90qpsf324goohqo4@4ax.com>
Source record: 97871

On 21 Mar 2004 06:13:13 -0800, jaroslavlipka@msn.com (jaroslav lipka)
wrote:

>Richard Clark <kb7qhc@comcast.net> wrote
>>
>> Hi Jaro,
>>
>> I presume by this you haven't any idea how it could be proven
>> yourself?
>
>
> G'day Richard
>
> Why am i not surprised you jumped in.
Nor I you. Thanx for that moment of irony. :-)
>As i have stated before i know very little about Antenna's, but i do consider
>myself a reasonable judge of people.

Hi Jaro,

That is a presumption not supported by any evidence much less
observable in your correspondence. You respond as a social critic
often, and to take me to task for that same office exposes your having
little talent for it.

As a social critic, you should examine the quality of your education
closer. For instance, English is one of the few, if not only,
languages that distinguishes and capitalizes the first person pronoun
- I. To a social examiner, the persistent usage of the lower case i
would suggest problems of either self perception, or over exposure to
the works of e.e. cummings. However, I am descending into technical
issues and diverging from your agenda of entertainment:

> I first came across this group about two years ago and what caught
>my attention then was a post you made where you were attempting to
>ridicule where Art had sugested putting a feed on an Antenna (i
>believe it was a Moxon)and in a later post Ian White confirmed it was
>the correct position.

I've noted in that same span of time that, yes, you know very little
about antennas and have contributed nothing technical. We often
encounter correspondents slumming through our group in seek of
entertainment and pressing on for more discussion of personalities to
the abandonment of the theoretical (this post of yours is eminent in
that regard). Your support of Art certainly serves to relieve your
boredom - one of those decadent Old World problems of ennui?

> You ask for facts and figures,why should he supply them when
>judging from your previous posts you have already decided whatever he
>claims he is wrong.

Why indeed, when it interferes with this decided preference for the buffoonery of a soap opera. Facts and figures too quickly snuff the ambiguity of martyrdom.

Jaro, please don't let this dissuade you from more entries here, their quality heightens the contrast to real participation. This returns me to the original observation you have not responded to:
>> I presume by this you haven't any idea how it could be proven
>> yourself?
Let's just say your prejudice has the same weight as Art's proofs you fail to comprehend - could we say ï¿½therial?

73's
Richard Clark, KB7QHC

4600. Re: Tracking down noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 20:09:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h5tr50lq8293gkvs9heflv662l8mrbbtpm@4ax.com>
Source record: 97872

On Sun, 21 Mar 2004 18:09:08 GMT, ricknj10@hotmail.com (Rick) wrote:

>I am trying to locate the source of power line noise in my
>neighborhood. I drove around with a 10 meter am receiver with a base
>loaded vertical on the car and found the noise source is hard to
>pinpoint.

Hi Rick,

Your antenna is too big. It is listening to the world and the neighborhood is made too small for your efforts. Shield it, or as noted in another thread, attenuate the signal (at the antenna) until you can barely hear it, then drive closer until you can hear it better and attenuate it some more. Instead, if it drops out, the source is just behind you.

> Possibly this is because the noise is being conducted along
>the power line?

This would be consistent with electric fences arcing at the low wire into new, spring growth. The loops around a field often have the habit of being resonant in our bands.

>What is the best way to locate the source.
>I am assuming if I can tell the power company that I am certain of the
>pole (cracked insulator ?) that is causing the problem I stand a
>better chance of getting action.
>A related question - IF I was to find the pole where the noise
>originates is there any chance of being able to actually see arcing
>occurring?

Probably not, otherwise you would see the crowd watching it first and you wouldn't need all the DF equipment.

73's
Richard Clark, KB7QHC

4601. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 20:13:15 UTC
From: Jeff Liebermann <jeffl@comix.santa-cruz.ca.us>
Message-ID: <c1tr509eqipks7lt08ttt5cvnpkumu89u3@4ax.com>
Source record: 97874
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Sun, 21 Mar 2004 08:47:34 +0000, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that Jeff Liebermann
><jeffl@comix.santa-cruz.ca.us> wrote (in <mppp50ho4dr08ahkb3dlbqkcfkp0ih
>jn52@4ax.com>) about 'CB Radios, Cellphones and Gasoline Vapor
>Ignition', on Sun, 21 Mar 2004:
>>The gap necessary to create an arc with 22 volts is:
>> 22V / 20,000V/in = 0.001 inches Kinda small, but given a microscope,
>>a 1 mil spark gap will arc.

>But it takes about 350 V to do so. The relationship between voltage and
>gap length is very non-linear below about 500 V.

I didn't know that it wasn't linear. I just assumed that it takes the
same amount of energy to peel electrons off of a single atom (ionize)
regardless of gap seperation. A wider gap requires more voltage to
ionize more atoms to create a longer conduction path, but the energy
per atom is the same. I also couldn't find (Google) any useful
references that showed this non-linearity. Unless the heat generated
by the ionization contributes to assisting furthur ionization, my
seat-o-de-pants physics says it should be linear (for DC).

There's also the minor detail of RF excitation versus DC. As I
vaguely remember from my 35 years ago college welding classes, TIG
welding uses RF to strike the arc because it takes less
power/energy/whatever to start the arc. We're allegedly talking about
striking an arc across 0.001" with a 5 watt, 27MHz transmitter
terminated with a 50 ohm load. If it's non-linear in the opposite
direction, the calcs are gonna be no fun.

I have everything it takes to test this. Microscope slide, with two
sewing pins glued with hotmelt goo and seperated by 0.001". Apply RF
and watch through the microscope. I'll see if I can throw something
together and post photos (time permitting).

Also, I've always been tempted to build a low power, QRP spark gap
transmitter. Although the mode is illegal, I suspect that operating
spark at below Part 15 incidental emission standards, would be
tolerated. Getting the arc to start at such low power levels might
require some exotics (i.e. piezoelectrics). This could be the start
of something interesting (or disgusting).

--
Jeff Liebermann 150 Felker St #D Santa Cruz CA 95060

(831)421-6491 pgr (831)336-2558 home
http://www.LearnByDestroying.com AE6KS
jeffl@comix.santa-cruz.ca.us jeffl@cruzio.com

4602. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 20:33:31 UTC
From: bill.sloman@ieee.org
Message-ID: <7c584d27.0403211233.78d134cf@posting.google.com>
Source record: 97873
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

John Woodgate <jmw@jmwa.demon.contraspam.yuk> wrote in message
news:<9nrqPFCmaVXAFwWE@jmwa.demon.co.uk>...
> I read in sci.electronics.design that Jeff Liebermann
> <jeffl@comix.santa-cruz.ca.us> wrote (in <mppp50ho4dr08ahkb3dlbqkcfkp0ih
> jn52@4ax.com>) about 'CB Radios, Cellphones and Gasoline Vapor
> Ignition', on Sun, 21 Mar 2004:
> >The gap necessary to create an arc with 22 volts is:
> > 22V / 20,000V/in = 0.001 inches Kinda small, but given a microscope,
> >a 1 mil spark gap will arc.
>
> But it takes about 350 V to do so. The relationship between voltage and
> gap length is very non-linear below about 500 V.

In fact the Paschen curve - breakdown voltage plotted against gap -
has a minimum at around a couple of hundred volts, and the breakdown
voltage starts rising again for very small gaps. The linear right-hand
branch of the graph where you might see a slope of 20,000V per inch
doesn't extend down to 22V.

The theory explaining the conductivity of electricity through gases
was worked out around the turn of the last century, and doesn't seem
to be all that well known any more. Pity.

Bill Sloman, Nijmegen

4603. Re: Attenuators for Direction Finding???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 21:11:05 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <Jxn7c.55130$_w.877825@attbi_s53>
Source record: 97875

If you are close enough to NEED an attenuator then the best one is your antenna!

Remove it!!

DD

thatcher wrote:
> Where can I buy some attenuators to attenuate signals while Dfing?
>
> Any good info or sources of info on the subject?
>
> I'm going to try to do it with a HT and its S-meter.

4604. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 22:28:50 UTC
From: nico@puntnl.niks
Message-ID: <405e167b.32890183@news.planet.nl>
Source record: 97876
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

KLM <klmok88@yahoo.com> wrote:

>On Thu, 18 Mar 2004 05:39:21 +0000, Tim Auton
><tim.auton@uton.[groupSexWithoutTheY]> wrote:
>
>
>>>Do you all think that tangos are dumb enough to trigger the bomb
>>>with the ringer or would the detonator answer first and listen for a
>>>DTMF sequence. Hmmm? Achmed the bomb maker gets a wrong number just
>>>as he's connecting the thing.
>>
>>I very much doubt they bother with DTMF decoders. I mean, how often do
>>you get a wrong number? I've had about 4 in my life. They'll just
>>connect the ringer (or vibrate function) to the detonator (with
>>whatever minimal circuitry in between is required - I've never used a
>>detonator!) and then only turn the phone on at the last minute.
>>
>>It's not dumb to design a remote detonation system that requires the
>>absolute minimum of specialist knowledge and equipment to construct.
>>
>
>
>To use the unique cellphone ID to detonate a remote bomb is actually
>a very ingenious innovation. No timers to mess with. The terrorist
>has full and instant control of the time and place to set off the
>bomb.
>
> As Tim says its relatively easy to connect the ringer wires to a
>simple circuit to output enough juice to trigger the detonator. Frist
>year student project - like using a battery to keep a capacitor
>charged and the ringer closes the discharge switch. Boom.

I'm pretty sure that it won't work that simple. There are other
factors at play that make controlling things with a telephone a lot
harder to achieve than you think... For everyone's safety I'm not
going into the details.

--
Reply to nico@nctdevpuntnl (punt=.)
Bedrijven en winkels vindt U op www.adresboekje.nl

4605. 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 22:44:39 UTC
From: acepilot <acepilot@bloomer.net>
Message-ID: <SQo7c.466$KG2.1186@reggie.win.bright.net>
Source record: 97877

Any ideas for an omni directional antenna for 144.200 that could be
mounted above the topper of my pickup? Something like a halo/squalo?

Scott
N0EDV

4606. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 22:59:22 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <GpmdnQCUI4B7gMPd4p2dnA@comcast.com>
Source record: 97878
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

If you think it is that hard, it's obvious the reason you won't go into the details. You don't know.
It is rather easily done.

"Nico Coesel" <nico@puntnl.niks> wrote in message news:405e167b.32890183@news.planet.nl...
> I'm pretty sure that it won't work that simple. There are other
> factors at play that make controlling things with a telephone a lot
> harder to achieve than you think... For everyone's safety I'm not
> going into the details.

4607. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 23:00:47 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <zBFJm+If6hXAFwUg@jmwa.demon.co.uk>
Source record: 97880
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that Jeff Liebermann
<jeffl@comix.santa-cruz.ca.us> wrote (in <c1tr509eqipks7lt08ttt5cvnpkumu
89u3@4ax.com>) about 'CB Radios, Cellphones and Gasoline Vapor
Ignition', on Sun, 21 Mar 2004:
>I didn't know that it wasn't linear.

>
Google for Paschen's Law. For high voltages it is linear enough for
calibrated spark gaps to be used as voltmeters in the past. The high-
voltage terminals were open and accessible, giving a whole new meaning
to the phrase 'Paschen killers'.(;-)
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4608. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 23:05:26 UTC
From: bill.sloman@ieee.org
Message-ID: <7c584d27.0403211505.b6e8447@posting.google.com>
Source record: 97879
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

John Woodgate <jmw@jmwa.demon.contraspam.yuk> wrote in message
news:<KpRHs$DOzbXAFwRZ@jmwa.demon.co.uk>...
> I read in sci.electronics.design that Bill Sloman <bill.sloman@ieee.org>
> wrote (in <7c584d27.0403210545.76dad16b@posting.google.com>) about 'CB
> Radios, Cellphones and Gasoline Vapor Ignition', on Sun, 21 Mar 2004:
> >For the difference between Dewar benzene and Kekule benzene see
> >
> >http://www.chemsoc.org/exemplarchem/entries/2001/robson/benzenering.htm
>
> Dewar benzene can actually be made? Do you know when it was discovered?
> What about the prismatic form? I would have thought that was a lot
> easier to make, if I didn't have a suspicion that that is where simple
> bonding ideas break down.

IIRR all three Dewar benzenes can be made - with difficulty.

They've been available since before 1971 at least - which is when my
project fell apart - but they were newish then.

The three-carbon rings at either end of the prismatic version do have
a lot of steric strain, but they can be made - I think pyrethroid
insecticides include just such a cyclopropane ring.

Bill Sloman, Nijmegen

4609. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 23:13:32 UTC
From: bill.sloman@ieee.org
Message-ID: <7c584d27.0403211513.b85d211@posting.google.com>
Source record: 97881
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

jwill@AstraGate.net (John Michael Williams) wrote in message
news:<4032bf27.0403211108.29cafba@posting.google.com>...
> bill.sloman@ieee.org (Bill Sloman) wrote in message
news:<7c584d27.0403210545.76dad16b@posting.google.com>...
> > ...
> >
> > The controlling relationship is between the volume of the sphere in
> > which the reaction is first initiated, and the surface area of that
> > sphere - if the intial volume is too small, not enough energy is
> > released to heat the surrounding shell of gas to the ignition
> > temperature.
> >
> >...
> > -------
> > Bill Sloman, Nijmegen
>
> This makes sense. I think I can see a spark 0.1 mm in
> radius, at say 4000 K. That's about 4 cubic picometers
> in volume and about 0.1 square micron in surface area (assuming
> sparks have smooth surfaces). But, I'm not sure how to relate
> that to the threshold of flame propagation.
>
> If energy is a factor, rather than power, the duration of
> the spark would seem to be relevant, too.

Sparks are much faster than flame fronts - when I was involved in instrinsic safety nobody paid any attention to spark duration, and for all practical purposes the energy stored in the capacitance of a spark gap is dumped into the gas much faster than it can be dissipated.

Bill Sloman, Nijmegen

4610. Re: 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 23:24:18 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <Cup7c.55595$_w.883712@attbi_s53>
Source record: 97882

Why not a Halo!

acepilot wrote:

> Any ideas for an omni directional antenna for 144.200 that could be
> mounted above the topper of my pickup? Something like a halo/squalo?
>
> Scott
> N0EDV
>

4611. Re: Tracking down noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 23:26:01 UTC
From: Wes Stewart <*n7ws*@arrl.net>
Message-ID: <3m8s50tvantkg2lpvist5qbalarg5nj83m@4ax.com>
Source record: 97883

On Sun, 21 Mar 2004 18:09:08 GMT, ricknj10@hotmail.com (Rick) wrote:

|I am trying to locate the source of power line noise in my
|neighborhood. I drove around with a 10 meter am receiver with a base
|loaded vertical on the car and found the noise source is hard to
|pinpoint. Possibly this is because the noise is being conducted along
|the power line? What is the best way to locate the source.
|I am assuming if I can tell the power company that I am certain of the
|pole (cracked insulator ?) that is causing the problem I stand a
|better chance of getting action.

Not really. Any decent power company will have an expert whose job it
is to find this stuff. Mine (a rural co-op) does not, although they
have tried very hard on several occasions. About the time I got their
guy sort of trained, he was injured and retired. Subsequently, they
called in the guy from the local metropolitan company with his
specially equipped van and he found the problems almost immediately.

|A related question - IF I was to find the pole where the noise
|originates is there any chance of being able to actually see arcing
|occurring?

Highly unlikely.

N7WS

4612. Re: Tracking down noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 23:29:08 UTC
From: Mac <vk2evb@swiftdsl.com.au>
Message-ID: <405e8965$0$27651$61ce578d@news.syd.swiftdsl.com.au>
Source record: 97898

Hi, Maybe advisable to check your own house first, eg. computer controlled, washing machine, dishwasher, stove, TV, video or dvd machine, or hot water system etc. But I reckon the worst thing are the bedside "touch" lamps. Good luck.

"Rick " <ricknj10@hotmail.com> wrote in message news:405dd8ae.20575859@news.optonline.net...
> I am trying to locate the source of power line noise in my
> neighborhood. I drove around with a 10 meter am receiver with a base
> loaded vertical on the car and found the noise source is hard to
> pinpoint. Possibly this is because the noise is being conducted along
> the power line? What is the best way to locate the source.
> I am assuming if I can tell the power company that I am certain of the
> pole (cracked insulator ?) that is causing the problem I stand a
> better chance of getting action.
> A related question - IF I was to find the pole where the noise
> originates is there any chance of being able to actually see arcing
> occurring?
>
> Rick K2XT
> ricknj10@hotmail.com

4613. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-21 23:41:39 UTC
From: Guy Macon <http>
Message-ID: <geadnc9W-_2ltcPdRVn_iw@speakeasy.net>
Source record: 97884
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

CW <clinton.magers@comcast.net> says...

>"Nico Coesel" <nico@puntnl.niks> wrote...
>
>> I'm pretty sure that it won't work that simple. There are other
>> factors at play that make controlling things with a telephone a lot
>> harder to achieve than you think... For everyone's safety I'm not
>> going into the details.
>
>If you think it is that hard, it's obvious the reason you won't go into the
>details. You don't know.
>It is rather easily done.

Any electronics engineer or technician can do it.

(CW, please don't top post)

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4614. Re: Tracking down noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 00:53:49 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <405e3e01_2@news1.prserv.net>
Source record: 97886

"Wes Stewart" <*n7ws*@arrl.net> wrote in message
> Not really. Any decent power company will have an expert whose job it
> is to find this stuff. Mine (a rural co-op) does not, although they
> have tried very hard on several occasions. About the time I got their
> guy sort of trained, he was injured and retired. Subsequently, they
> called in the guy from the local metropolitan company with his
> specially equipped van and he found the problems almost immediately.

Wes:

I have previously pointed out that few to none of the electric utilities have noise experts any longer. Since deregulation, none of them want to try to justify the cost to their stockholders, and the accountants are firmly in charge. Ask Riley Hollingsworth or Ed Hare if you are reluctant to take my word. I have worked as an independent in this field since well before deregulation, and have watched the demise of the "noise expert". There are still a number of them active as private consultants, and there is plenty of work out here to keep all of us busy, but if there is still one employed by a utility company, I would sure like to know his name and the name of the utility, because I can no longer identify one from my lists.

Rick:

See:

http://www.arrl.org/tis/info/HTML/power_line_handbook/

on the ARRL web site for further guidance.

--
Crazy George
Remove N O and S P A M imbedded in return address

4615. Hi-Gain 40M coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 01:00:03 UTC
From: Bob Wood <bobw@zianet.com>
Message-ID: <105sekc8he7un8a@corp.supernews.com>
Source record: 97885

I have somewhere along the line of many years of collecting stuff acquired two new Hy-Gain 40M antenna traps or coils assemblies that are marked as 40M-ASSY-877234. The devices are 44" long and approximately 1-1/2 inch in diameter. I have to assume they were intended for a 40M beam or rotatable dipole antenna. Does anyone have any information on these or suggestions for utilizing them in a 40M rotatable, single element antenna design. I hate to just keep them lying around but not sure what to do with them at this time.

Bob Wood
W5QCP
Alamogordo, NM

4616. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 01:33:30 UTC
From: kludge@panix.com
Message-ID: <c3lfpa$4dc$1@xuxa.iecc.com>
Source record: 97887
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

exray <dontspamexray@coqui.net> wrote:
>
>I'm sure they are out there but I have never seen one. Can you show me
>a consumer grade WWV/WWVH synchronized clock?

Heathkit made one for ages.
--scott

--
"C'est un Nagra. C'est suisse, et tres, tres precis."

4617. Re: WWVB decoder circuit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 01:47:42 UTC
From: Dennis <Howdy.Doody@howdydoody.net>
Message-ID: <c3lgju$7h7$1@xuxa.iecc.com>
Source record: 97888
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,
rec.radio.broadcasting,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.swap

In article <c3jb4i$6e8$1@xuxa.iecc.com>, dontspamexray@coqui.net says...
>
>
>Dennis wrote:
>
>>
>> You're right a wwv or wwvh clock both receive and decode
>> the same manner. Both wwv and wwvh transmit at 2.5, 5. 10, 15, & 20Mhz.
>> There is no 60Khz on Kiuai.
>>
>> Dennis
>>
>>>**
>>>* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
>>>**
>
>I'm sure they are out there but I have never seen one. Can you show me
>a consumer grade WWV/WWVH synchronized clock?
>
>-Bill M
>

They are ocasionally on ebay. Then there is the
venerable Heathkit clock, which decoded WWV. I had
a Heathkit for a while, but sold it. It was really
not very stable compared to WWVB. I have several
WWVB clocks, and receivers. Both are commercial grade,
and very stable. The consumer clocks are very accurate,
but not good for calibration.

-Dennis
>

4618. Re: 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 02:08:19 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <nUr7c.22658$VV1.21737@nwrddc01.gnilink.net>
Source record: 97889

"acepilot" <acepilot@bloomer.net> wrote in message
news:SQo7c.466$KG2.1186@reggie.win.bright.net...
> Any ideas for an omni directional antenna for 144.200 that could be
> mounted above the topper of my pickup? Something like a halo/squalo?
>
> Scott
> N0EDV
>
Hi Scott,
You might be interested in our line of Omniangles. Better omni pattern,
slightly more integrated gain, better BW than traditional halo/loops. Built
in current mode balun.
http://www.eham.net/reviews/detail/1232
http://www.eham.net/reviews/detail/1572
http://www.eham.net/reviews/detail/1840

73,

Dale W4OP
for PAR Electronics, Inc.

4619. Re: degen BBQ lobe ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 03:43:41 UTC
From: G&R <spam@limbo.hell>
Message-ID: <Yht7c.6264$A_2.272840@news20.bellglobal.com>
Source record: 97892

Hi Richard,

I have no argument with your statement and I believe the value of 2.14dbi gain for a dipole (determined by people far more knowledgeable than I in these matters)

However, you will find that modelling software sometimes does some weird and wonderful things.

Depending on the modelling software used (and how it used), the 1/2 wave dipole mentioned can modelled with a gain of approx. 4 to 7dBi. So one could falsely assume that a dipole has a gain of (lets use the average of 6dBi minus 2.14 dBi) of 3.86dBd. Which I agree is incorrect.

The point I was trying to make, was that to correct for this minor variation in modelling characteristics, compare the dipole optimized for the same frequency with that of the antenna designed with both numbers calculated dBi and then manually calculate the difference to achieve realistic dBd value.

While I would love higher gain values compared to a dipole, I feel that to fairly represent what we are doing, we should be honest in our comparison by comparing items on the same playing field, which is why we provide our gain values in both dBi and dBd using the above method.

Now before anyone takes offence that I am blaming software. No, I'm not. I couldn't live without them as they save thousands of hours in development.

Hopefully, this clears up my earlier statement.

Best Regards,
Guenther VE3CVS
info@degendesigns.com
www.degendesigns.com

"always willing to learn and hopefully never to dumb to stop learning"

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:20275-405DEC27-281@storefull-3255.bay.webtv.net...
> Guenther, VE3CVS wrote:
> "This ensure any form of errors in gain are cancelled out correctly
> instead of using the typical 2.1 dbi value for a Dipole and providing a
> falsely unrealistic value."
>
> Gain is always measured with respect to some reference antenna. The
> isotropic is a hypothetical antenna so the usual practice is to use a
> 1/2-wavelength reference antenna. Gain is a power ratio which is equal
> to the voltage ratio squared. When dBd or some other reference is not

> specified, dBi is presumed.
>
> Kraus says the 1/2-wavelength resonant antenna`s gain over the isotropic
> is 1.64. This appears on page 454 of the 1950 edition of "Antennas".
> Terman was Kraus` consulting editor.
>
> Terman says the same as Kraus on page 871 of the 1955 edition of
> "Electronic and Radio Engineering". Directive gain ignores losses.
> "Power Gain" as wsed to determine effective radiated power takes into
> account loss in the antenna used. The reference antenna is considered
> lossless.
>
> The dB gain figure calculated from a 1.64 power ratio is shown on page
> 2-12 of the 19th edition of the ARRL Antenna Book. Gain in the
> 1/2-wavelength dipole`s best direction is shown as 2.14 dBi.
>
> 0 dBd is identical to 2.14 dBi. No false or unrealistic values obtain
> from using either reference.
>
> Best regards, Richard Harrison, KB5WZI
>

4620. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 03:54:28 UTC
From: t_ashland@yahoo.com
Message-ID: <6e6aeba9.0403211954.2666091e@posting.google.com>
Source record: 97890

I've experienced the problems you have outlined. I agree with Irv.
The problem is more than likely the pot in the rotor. Norm's rotor
service has the parts for a reasonable price.
Good luck!
WK0F, Terry

Irv Finkleman <finkirv@shaw.ca> wrote in message news:<405DC8CD.85CAB9@shaw.ca>...
> "Dick, AA5VU" wrote:
> >
> > Thanks to Irv and others that responded. I plan to remove the Control
> > Unit from the rats nest on Monday and try spraying the Calibration pot.
> >
> > I still do not understand the function of the Calibration control? It
> > is a push in/out (maybe for on/off) and trim pot for setting the meter.
> > It has very little control over the needle. At best it does a few
> > degrees to help zero in on South.
> >
> > Irv, where is the wireround pot you mentioned?
> >
> > Thanks again to all that responded.
> >
> > Dick - AA5VU
>
> Dick, the pot I refer to is in the Rotor -- not the control unit. It is
> not the calibration control pot which is in the control unit, but rather
> the pot in the rotor itself. If you open the rotor, you can't miss it,
> it is at the highest point and has a large copper wiper arm. Still, it
> wouldn't hurt to spray the calibration pot just in case although I have
> never heard of any problems with that particular pot.
>
> I presume you have a manual -- if you look at the interconnection between
> the control unit and the rotor unit you will see how the pot in the
> rotor sends the position down to the control unit.
>
> When you open the rotor, be very careful as there is a large bearing
> with balls about 3/8 inch diameter some of which may fall out. They are
> easy to set in place, but if you are working in an area where they can
> roll off the workbench into awkward places -- which Murphy's Law says
> they will -- the job is more difficult.
>
> Also note the relative position of things because incorrect assembly of
> the mechanical linkage between top and bottom will result in big problems.
> If you are reasonably mechanically adept, you shouldn't have any
> problem.

>
> You might even consider asking around among the local hams -- there are
> probably a few who have already been inside one and would be willing
> to share their expertise.
>
> Once you have fixed things up you will find the calibration control has
> considerable control over the meter setting.
>
> I hope this helps!
>
> Irv VE6BP
>
> --
> ------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/
> Visit my very special website at http://members.shaw.ca/finkirv4/
> Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/
> -------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

4621. Re: HUGE (Was: Hugh) antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 03:56:37 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0403211956.e1a1866@posting.google.com>
Source record: 97891

gus <gus_amato@spamfree.net> wrote in message news:<405CE109.A2A6C8BF@spamfree.net>...

> http://www.fybush.com/site-021219.html

Great link - Tnx! Brian w3rv

>
> Andy in NJ wrote:
>
> > What exactly is a Hugh tower? Is it a tower owned by Hugh Grant? :)

4622. Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 04:10:27 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c3lovg$28ui6o$1@ID-225206.news.uni-berlin.de>
Source record: 97893

If I have two antennas hooked up to a transmitter, is there an easy way to
very the phase to one or both of the antennas
to be able to change the pattern around electronically?

Thanks

4623. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 04:49:52 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <__ydnXwQGYvx7cPd4p2dnA@comcast.com>
Source record: 97894

"John Smith" <pani@yahoo.com> wrote in message
news:c3lovg$28ui6o$1@ID-225206.news.uni-berlin.de...
> If I have two antennas hooked up to a transmitter, is there an easy way to
> very the phase to one or both of the antennas
> to be able to change the pattern around electronically?

Sure, drive the second antenna through a section of feedline from the first
line.
Look for description on direction finding antennas with cardioid patterns.

4624. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 05:50:37 UTC
From: richardharrison@webtv.net
Message-ID: <20275-405E7EAD-367@storefull-3255.bay.webtv.net>
Source record: 97895

Henry Koleanik, WD5JFR wrote:
"Anyone really know theory behind these things?"

The Isotron is a small tuned loop. Tuning gets rid of reactance which would cripple performance were it not removed from the loop.

A small loop has a null perpendicular to the plane of the loop. Energy suppressed in directions of the loop`s axis is radiated in the plane of the loop giving a directivity power gain of about 1.5 (not dB, where it`s just under 2 dB gain) over an isotropic radiation in the plane of the loop as in other directions as well.

The bad news is that even made with a large surface area, the small loop`s loss resistance looms large as compared its radiation resistance.

The 3rd edition of Kraus` "Antennas" is a clear source of single-turn circular loop information. Fig.7-10 on page 209 gives radiation resistance versus loop circumference. Fig. 7-11 gives directivity.

If radiation resistance were 0.5 ohm and r-f resistance were 0.5 ohm, efficiency would be:
0.5/1=50%

Kraus has Fig. 7-17 on page 217 which gives radiation efficiency as a function of frequency for a 1-m-diameter single-turn 10mm copper tubing loop in air. At 1 MHz, the loss is about 40 dB. At 10 MHz, the loss is about 6 dB. The radiation resistance of the loop is rising more rapidly than is the loss resistance as frequency goes up. The loss is enormous. This is ok for reception in most cases, but it`s very dear for transmitting.

Best regards, Richard Harrison, KB5WZI

4625. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 06:19:36 UTC
From: don@manx.misty.com
Message-ID: <slrnc5t1bo.aag.don@manx.misty.com>
Source record: 97896
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In <ofhq50dfqlmeto169hrsj8f3e0n8eaab09@4ax.com>, Jeff Liebermann wrote
in part:

>Neon lamp needs about 60 volts to light and 40 volts to stay lit. The
>4 watt flourescent tube wants at least 90 volts to start, and I think
>(i.e. guess) about 50 volts to stay lit.

Lower voltage neon lamps do indeed light at 60 volts RMS and stay lit at
40 volts RMS. But these are lowish figures.

4-watt fluorescents need more, except they stay lit at only about 30
volts at full current, and part of that reason is thermionic emission from
hot electrodes.

I would not worry about RF from a cellphone igniting anything. If a
cellphone is going to be found to ignite gasoline vapor, I think more
likely ways are:

* Sparks in the vibration motor
* Sparks from failing wires/connections
* Sparks in speakers with voice coils with intermittent shorts
* Sparks in switches (in whatever few models having switches that
actually switch enough current to make a spark)

I have already seen the Snopes item months ago when I first heard of
cellphones supposedly causing gas station fires, and they make it sound
as if cellphone ignition of gasoline vapors may never have actually
occurred, evidence that this has indeed happened appears mainly anecdotal,
and that this is rare if it does happen.

When I refuel my car, I keep my cellphone either far or upwind from the
gas inlet of my car. (My cellphone has vibration on.) I also ground
myself by touching something far/upwind of the fuel inlet if I let go of
the nozzle and have to touch the nozzle or anything near the fuel inlet
again before leaving the gas station to avoid the greater danger of static
electricity.

- Don Klipstein (don@misty.com)

4626. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 06:29:01 UTC
From: don@manx.misty.com
Message-ID: <slrnc5t1td.aag.don@manx.misty.com>
Source record: 97897
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In <7c584d27.0403210545.76dad16b@posting.google.com>, Bill Sloman wrote
in part:
>
>I had to work through the equations many years ago for an experiment
>intended to monitor the process in which one of the "Dewar benzenes"
>converted itself to normal - Kekule's - benzene, which is an
>enormously energetic process, involving about an order of magnitude
>more energy per molecule than you get out of TNT and PETN. I really
>didn't want to blast my experimental apparatus to smithereens.
>
>When I went through the calculations with my supervisor, he pulled a
>very long face - the motivation for the experiment had been some
>unexpected flashes of light seen when a dumb organic chemist had
>released small drops of liquid "Dewar benzene" into a hot cell, and my
>calculations made it clear that the flashes of light were just thermal
>radiation from a hot plasma, rather than fluorsecence from from an
>electronically excited state of Kekule benezene, which is what my
>supervisor had been hoping for ...
>
>For the difference between Dewar benzene and Kekule benzene see
>
>http://www.chemsoc.org/exemplarchem/entries/2001/robson/benzenering.htm

If this produces anything near 10x the energy per weight of TNT or PETN,
then a version with controlled reaction rate would make one heck of a
rocket propellant.

I thought the ultimate energy per mass was magnesium and oxygen (or was
it beryllium and oxygen?), just a few times as much energy per mass as TNT
and not good like usual rocket propellants for producing gas to use as
rocket exhaust.

I am surely skeptical of changing one isomer of a molecule to another
producing even comparable energy to, let alone more energy than
decomposition of a similar or somewhat greater mass molecule of high
explosive.

- Don Klipstein (don@misty.com)

4627. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 06:48:56 UTC
From: don@manx.misty.com
Message-ID: <slrnc5t32n.aag.don@manx.misty.com>
Source record: 97899
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In <c1tr509eqipks7lt08ttt5cvnpkumu89u3@4ax.com>, Jeff Liebermann wrote:
>On Sun, 21 Mar 2004 08:47:34 +0000, John Woodgate
><jmw@jmwa.demon.contraspam.yuk> wrote:
>
>>I read in sci.electronics.design that Jeff Liebermann
>><jeffl@comix.santa-cruz.ca.us> wrote (in <mppp50ho4dr08ahkb3dlbqkcfkp0ih
>>jn52@4ax.com>) about 'CB Radios, Cellphones and Gasoline Vapor
>>Ignition', on Sun, 21 Mar 2004:
>>>The gap necessary to create an arc with 22 volts is:
>>> 22V / 20,000V/in = 0.001 inches Kinda small, but given a microscope,
>>>a 1 mil spark gap will arc.
>
>>But it takes about 350 V to do so. The relationship between voltage and
>>gap length is very non-linear below about 500 V.
>
>I didn't know that it wasn't linear. I just assumed that it takes the
>same amount of energy to peel electrons off of a single atom (ionize)
>regardless of gap seperation.

It gets messy. You can see how messy it gets when you see what happens in the cathode area of a "glow discharge".

A "glow discharge" is one of two common processes where positive ions of the gas/vapor are accelerated by the cathode-adjacent electric field into the cathode material, and where positive ions bombarding the cathode dislodge electrons from the cathode to maintain the supply of free electrons in the "discharge" (conductive path of glowing gas/vapor). (The other of the two common discharge mechanisms where cathode bombardment by positive ions dislodges electrons is the "cold cathode arc". There is still another cathode process for a discharge known as the "thermionic arc".)

The glow discharge cathode process has 5 layers, 3 dim/dark and 2 bright. There is some sort of 'natural spacing' and 'natural thickness' of these layers, which varies with gas/vapor type and pressure and the cathode material. There is also a characteristic voltage drop of the cathode process known as the "cathode fall", and that is normally a few times or several times the ionization potential of the gas/vapor.

There is such a thing as "normal glow", where the cathode process occurs at its natural current density (for the gas/vapor type and pressure and cathode material), and the first two dark layers and the two bright layers and some minimal portion of the third dark layer have a tendency to occupy some 'natural distance' (a function of gas/vapor type and pressure

and cathode material) between cathode and anode.

Then there is "abnormal glow", where the cathode process is forced into a smaller space between electrodes and/or is conducting a current density higher than 'natural' (for the gas/vapor type/pressure and cathode material) due to more current flowing than is "natural" for the available cross section of cathode process. When that happens, the "cathode fall" is even higher than that of "nowmal glow".

>There's also the minor detail of RF excitation versus DC. As I
>vaguely remember from my 35 years ago college welding classes, TIG
>welding uses RF to strike the arc because it takes less
>power/energy/whatever to start the arc.

I don't know about that, but I have heard of RF glow discharges maybe having the cathode process eliminating one bright layer and one dark layer (for "electrodeless discharge" that occurs where insulation exists over the cathode for example), and that may reduce the cathode fall.

> We're allegedly talking about
>striking an arc across 0.001" with a 5 watt, 27MHz transmitter
>terminated with a 50 ohm load. If it's non-linear in the opposite
>direction, the calcs are gonna be no fun.

:) at best!!!

>I have everything it takes to test this. Microscope slide, with two
>sewing pins glued with hotmelt goo and seperated by 0.001". Apply RF
>and watch through the microscope. I'll see if I can throw something
>together and post photos (time permitting).

Please do!!!

- Don Klipstein (don@misty.com)

4628. Re: degen BBQ lobe ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 06:49:46 UTC
From: richardharrison@webtv.net
Message-ID: <3181-405E8C8A-276@storefull-3256.bay.webtv.net>
Source record: 97900

Guenther, VE3CVS wrote:
"I feel that to fairly represent what we are doing, we should be honest in our comparison by comparing items on the same playing field, which is why we provide our gain values in both dBi and dBd using the above method."

That should be beyond impeccable. It is almost fool proof if free-space conditions are specified or if the incremental placement gain is itemized for a fair comparison.

In measuring gain you can place the reference dipole in the same location or at the same height at a similsr location to that of the device under test. When I`ve done that it was satisfying to get test results which met expectations. It proved performance of the new antennas.

Best regards, Richard Harrison, KB5WZI

4629. Re: Tracking down noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 07:34:31 UTC
From: Wes Stewart <*n7ws*@arrl.net>
Message-ID: <fk5t50p4sph4neu2je34br9un0fvqja4k3@4ax.com>
Source record: 97901

On Sun, 21 Mar 2004 18:53:49 -0600, "Crazy George"
<muNnscOh@attSglPobaAl.nMet> wrote:

|"Wes Stewart" <*n7ws*@arrl.net> wrote in message
|> Not really. Any decent power company will have an expert whose job it
|> is to find this stuff. Mine (a rural co-op) does not, although they
|> have tried very hard on several occasions. About the time I got their
|> guy sort of trained, he was injured and retired. Subsequently, they
|> called in the guy from the local metropolitan company with his
|> specially equipped van and he found the problems almost immediately.
|
|Wes:
|
|I have previously pointed out that few to none of the electric utilities
|have noise experts any longer. Since deregulation, none of them want to try
|to justify the cost to their stockholders, and the accountants are firmly in
|charge. Ask Riley Hollingsworth or Ed Hare if you are reluctant to take my
|word. I have worked as an independent in this field since well before
|deregulation, and have watched the demise of the "noise expert". There are
|still a number of them active as private consultants, and there is plenty of
|work out here to keep all of us busy, but if there is still one employed by
|a utility company, I would sure like to know his name and the name of the
|utility, because I can no longer identify one from my lists.

It's been a couple of years but Tucson Electric Power was the one.
|
|Rick:
|
|See:
|
|http://www.arrl.org/tis/info/HTML/power_line_handbook/
|
|on the ARRL web site for further guidance.

4630. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 10:24:45 UTC
From: Geodanah@yahoo.com
Message-ID: <7c28d4ba.0403220224.42b79328@posting.google.com>
Source record: 97902
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"S" <fn30@optonline.net> wrote in message
news:<BBn6c.16584$E8.3701341@news4.srv.hcvlny.cv.net>...
> the show on discovery channel, mythbusters. debunked that myth,
>
>
They also showed in the same episode that a good percentage of
fueling fires come from static sparks around the gas tank. Someone
mentioned it before, but ground yourself away from the tank before you
start fueling. Apparently women are more likely not to ground
themselves and have something 70% of all spark induced fires. It was
pretty cool to watch the show and see a firefighter deliberately
generate a static spark and light himself on fire at a gas pump.

4631. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 10:38:51 UTC
From: bill.sloman@ieee.org
Message-ID: <7c584d27.0403220238.57e783ef@posting.google.com>
Source record: 97903
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jeff Liebermann <jeffl@comix.santa-cruz.ca.us> wrote in message
news:<c1tr509eqipks7lt08ttt5cvnpkumu89u3@4ax.com>...
> On Sun, 21 Mar 2004 08:47:34 +0000, John Woodgate
> <jmw@jmwa.demon.contraspam.yuk> wrote:
>
> >I read in sci.electronics.design that Jeff Liebermann
> ><jeffl@comix.santa-cruz.ca.us> wrote (in <mppp50ho4dr08ahkb3dlbqkcfkp0ih
> >jn52@4ax.com>) about 'CB Radios, Cellphones and Gasoline Vapor
> >Ignition', on Sun, 21 Mar 2004:
> >>The gap necessary to create an arc with 22 volts is:
> >> 22V / 20,000V/in = 0.001 inches Kinda small, but given a microscope,
> >>a 1 mil spark gap will arc.
>
> >But it takes about 350 V to do so. The relationship between voltage and
> >gap length is very non-linear below about 500 V.
>
> I didn't know that it wasn't linear. I just assumed that it takes the
> same amount of energy to peel electrons off of a single atom (ionize)
> regardless of gap seperation. A wider gap requires more voltage to
> ionize more atoms to create a longer conduction path, but the energy
> per atom is the same. I also couldn't find (Google) any useful
> references that showed this non-linearity. Unless the heat generated
> by the ionization contributes to assisting furthur ionization, my
> seat-o-de-pants physics says it should be linear (for DC).

You need to read up on the physics involved. The critical point is
that a free electron in the gas has to have a long enough mean free
path to pick up enough energy by falling down the electric field to be
able to ionise a molecule when it does hit one, generating one more
electron in an inelastic collision.

If it hits a molecule before it acquires enough energy, in an elastic
collision, it will end up travelling in a different direction with the
same energy, but with a good chance of losing the energy that it had
accumulated. Think "drunkards walk".

The minimum in the Paschen curve corresponds to the point where the
mean free path is longer than the gap.

> There's also the minor detail of RF excitation versus DC. As I
> vaguely remember from my 35 years ago college welding classes, TIG
> welding uses RF to strike the arc because it takes less
> power/energy/whatever to start the arc. We're allegedly talking about
> striking an arc across 0.001" with a 5 watt, 27MHz transmitter

> terminated with a 50 ohm load. If it's non-linear in the opposite
> direction, the calcs are gonna be no fun.

RF excitation works better than DC becasue it doesn't sweep the electrons out of the gap as they are created (by cosmic rays or local radioactivity) in the way that a DC field does. Like I said earlier, the physics was worked out about a hundred years ago, and the calculations shouldn't be too difficult now that we can use computers for the tedious bits.

> I have everything it takes to test this. Microscope slide, with two
> sewing pins glued with hotmelt goo and seperated by 0.001". Apply RF
> and watch through the microscope. I'll see if I can throw something
> together and post photos (time permitting).

Everything except a sound undertanding of the theory. I've got a copy of a reprint of volume 2 of "Conduction of Electricity Through Gases" - Ionisation byCollision and the Gaseous Discharge - by J.J. Thompson and G.P. Thompson.
My copy was published by Dover Press in 1969, and reprints the 1933 third edition. The first - singe volume - edition was published in 1903. I bought it when I was fiddling around building a starter for a xenon arc lamp, back in 1972. It proved quite useful.

Bill Sloman, Nijmegen

4632. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 10:49:54 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <405ec51f_5@corp.newsgroups.com>
Source record: 97904

Dave VanHorn wrote:
> "John Smith" <pani@yahoo.com> wrote:
>>If I have two antennas hooked up to a transmitter, is there an easy way to
>>very the phase to one or both of the antennas
>>to be able to change the pattern around electronically?
>
> Sure, drive the second antenna through a section of feedline from the first
> line.

Not as easy as it sounds. It's a juggling act between phase shift and
impedance matching. Reference: "The Simplest Phased Array Feed System
... That Works", Roy Lewellen, W7EL, ARRL Antenna Compendium, Vol 2.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4633. Re: 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 11:29:14 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <405ECE0A.7759B4FC@cwis.net>
Source record: 97905

Dale,
I'm not disputing your claims, but what does "slightly
more integrated gain", mean?
'Doc

4634. More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 11:38:01 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86ekrlru1y.fsf@duchess.twilley.org>
Source record: 97906

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

The weekend was beautiful, so I was able to do some outside work.

I measured the antenna's impedance over 40m, then shortened the 40m
legs by two feet each. I then measured the antenna's impedance again,
and came up with numbers more closely resembling what I'd expect:

Frequency Resistance Reactance Impedance
7.00 14 6 15.2
7.05 18 15 23.4
7.10 18 21 27.7
7.15 21 20 29.0
7.20 24 27 36.1
7.25 28 36 45.6
7.30 28 43 51.3

These measurements were done using a slightly different method. This
time, I set the noise bridge for R=50 X=0 with the power off, then
tuned the drive on my receiver for maximum noise before powering on
the noise bridge and finding the null. The noise bridge manual is not
as detailed as I would like, and it's not clear what the "proper"
method is, but this produces reasonable results.

The impedance is well within a 2:1 match throughout the voice segment,
and a 3:1 match across the entire band.

In other news, I happened to tune across 20m for the last five minutes
of the Virginia QSO Party, and I made two contacts (NC4S and N4NW).
I feel better about the performance of my antenna on that band, but I
really hope that it's because the tuning somehow helped, and not that
contesters are the only ones willing to dig into the noise.

So it seems like I'm on the right track. I am going to try
lengthening the antenna by six inches and doing another round of
testing before moving on to the second set of legs, unless someone
- From the newsgroup pipes up with a correction to my methodology.

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

```
iD8DBQFAXtAfGPFSfAB/ezgRAgeFAJ4mwb8Xk5Z0QuPAD3FyooEvhc8t5gCgnEMx
gqrpyBBX4Y0FzaR1VPcnAXI=
=+myT
-----END PGP SIGNATURE-----
```

4635. Re: 30 Meter antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 11:48:27 UTC
From: KC1DI <kc1di@arrl.net>
Message-ID: <lakt509jc66gd19dn89fihj09j4g5q7mdj@4ax.com>
Source record: 97907

Just an Update on the 30m antenna,

Have been using the OCF 1 wave Dipole for about 1 week now , worked 3B9C on 30m Lots of Qrm. Worked antartica , Iraq so far country totals are at about 30 worked . Continents of SA EU Asia and Africa have been worked haven't heard any Down under stations or fareast Asia Pacific rim yet.. But so far been very please with the antenna ,

it's 92.5 feet overall fend 1/4 wave for the top end with 75 ohm coax. high end is at 50 feet low end at about 22 feet slopes fro west to east. Pattern looks good on modeling software highest gain is at about 35 degrees. seems to be working well for me.

73 , Dave

4636. Re: Attenuators for Direction Finding???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 12:02:05 UTC
From: Phil <phil.bradway@verizon.net>
Message-ID: <1BA7c.5991$o76.4260@nwrdny02.gnilink.net>
Source record: 97909

If really close, you could use your body as an attenuator. Hold the HT close and rotate yourself, looking for a null. The signal will be at your back. On attenuators, make them. The ARRL hand book has charts for both pi and t types.

Phil, KB2HQ

"Dave Shrader" <david.shrader@comcast.net> wrote in message news:Jxn7c.55130$_w.877825@attbi_s53...
> If you are close enough to NEED an attenuator then the best one is your
> antenna!
>
> Remove it!!
>
> DD
>
> thatcher wrote:
> > Where can I buy some attenuators to attenuate signals while Dfing?
> >
> > Any good info or sources of info on the subject?
> >
> > I'm going to try to do it with a HT and its S-meter.
>

4637. Re: 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 12:02:27 UTC
From: acepilot <acepilot@bloomer.net>
Message-ID: <405ED5D3.3000407@bloomer.net>
Source record: 97908

Oops, my fault! I should have elaborated just a bit more. I'm looking for something to build on the cheap because it will be basically a one-time use. A halo would be fine if I can build one. I have plans for something similar from the RSGB VHF/UHF Manual, but it doesn't show the feedpoint matching detail, so I'm not sure how to match it to 50 Ohms...something made of copper pipe or some 3/16" (I have a source) steel wire that is copper clad (power pole ground wire) that could handle 70 MPH.

Scott
N0EDV

Dave Shrader wrote:
> Why not a Halo!
>
> acepilot wrote:
>
>> Any ideas for an omni directional antenna for 144.200 that could be
>> mounted above the topper of my pickup? Something like a halo/squalo?
>>
>> Scott
>> N0EDV
>>
>

4638. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 12:21:42 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <qTA7c.60250$KO3.199500@attbi_s02>
Source record: 97910

Your antenna is resonant a little BELOW 7.000 MHz.

Is that what you expect?

W1MCE

Jack Twilley wrote:

> -----BEGIN PGP SIGNED MESSAGE-----
> Hash: SHA1
>
> The weekend was beautiful, so I was able to do some outside work.
>
> I measured the antenna's impedance over 40m, then shortened the 40m
> legs by two feet each. I then measured the antenna's impedance again,
> and came up with numbers more closely resembling what I'd expect:
>
> Frequency Resistance Reactance Impedance
> 7.00 14 6 15.2
> 7.05 18 15 23.4
> 7.10 18 21 27.7
> 7.15 21 20 29.0
> 7.20 24 27 36.1
> 7.25 28 36 45.6
> 7.30 28 43 51.3
>
> These measurements were done using a slightly different method. This
> time, I set the noise bridge for R=50 X=0 with the power off, then
> tuned the drive on my receiver for maximum noise before powering on
> the noise bridge and finding the null. The noise bridge manual is not
> as detailed as I would like, and it's not clear what the "proper"
> method is, but this produces reasonable results.
>
> The impedance is well within a 2:1 match throughout the voice segment,
> and a 3:1 match across the entire band.
>
> In other news, I happened to tune across 20m for the last five minutes
> of the Virginia QSO Party, and I made two contacts (NC4S and N4NW).
> I feel better about the performance of my antenna on that band, but I
> really hope that it's because the tuning somehow helped, and not that
> contesters are the only ones willing to dig into the noise.
>
> So it seems like I'm on the right track. I am going to try
> lengthening the antenna by six inches and doing another round of
> testing before moving on to the second set of legs, unless someone

> - From the newsgroup pipes up with a correction to my methodology.
>
> Jack.
> - --
> Jack Twilley
> jmt at twilley dot org
> http colon slash slash www dot twilley dot org slash tilde jmt slash
> -----BEGIN PGP SIGNATURE-----
> Version: GnuPG v1.2.4 (FreeBSD)
>
> iD8DBQFAXtAfGPFSfAB/ezgRAgeFAJ4mwb8Xk5Z0QuPAD3FyooEvhc8t5gCgnEMx
> gqrpyBBX4Y0FzaR1VPcnAXI=
> =+myT
> -----END PGP SIGNATURE-----

4639. Re: Attenuators for Direction Finding???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 12:22:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3mlqt$3h6$1@sparta.btinternet.com>
Source record: 97911

What is the matter with the receiver gain control?

If you must use an external attenuator it need not be matched. A simple variable 100-ohm pot with a knob on it is good enough for direction finding.

4640. Re: Tracking down noise

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 13:12:11 UTC
From: ricknj10@hotmail.com
Message-ID: <405ee361.88851312@news.optonline.net>
Source record: 97912

Thanks to all you guys for responding. Good info.
Here's a quick update.
I turned off the main breaker in my house and still have the noise.
As you experts point out, it is tough to get a bearing on the noise with HF measurements. I tried on 20, 15, 10 with a 3 element yagi and got peaks and nulls in different directions. Also with a 5 element 6 meter beam. Advice on the ARRL site said to use VHF, so as a first cut I drove the neighborhood with my FT100 mobile rig, mode AM, and 2 meter 1/4 wave antenna. S meter is approximately S2 everywhere except near two poles where it goes up to S7.
This is a rural area, heavily wooded, with houses set way back from the street. Along the street there are many transformers on the poles, with taps coming from the high voltage. Also there are these approximately 1 foot long fuses. I know, because when the squirrels get across my transformer that is the fuse that blows like a shotgun. So there are many places where a bad connection could occur.

This morning I make my first call to the power company. I'm in central NJ. Stay tuned.
And thanks again for the tremendous help and interest.

Rick K2XT

ps - I started this discussion on the antenna newsgroup because it seemed most appropriate. I hope it's ok if we keep it here. I don't crosspost.

4641. Re: HUGE (Was: Hugh) antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 13:17:15 UTC
From: Kevin Gunther <beeltee@optonline.net>
Message-ID: <vHB7c.23068$pU1.5679315@news4.srv.hcvlny.cv.net>
Source record: 97913

"Brian Kelly" <kelly@dvol.com> wrote in message
news:d22b54c3.0403211956.e1a1866@posting.google.com...
> gus <gus_amato@spamfree.net> wrote in message
news:<405CE109.A2A6C8BF@spamfree.net>...
>
>
> > http://www.fybush.com/site-021219.html
>
> Great link - Tnx! Brian w3rv
>
> > I remember when I was kid, that my dad listened to KE2XCC from New
Haven, CT. I have never known much about that station. Thanks fer the info

Kevin

W1FWB

4642. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 13:22:42 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <hr2dnfhbTlwGdcPdRVn-gQ@comcast.com>
Source record: 97914

> Not as easy as it sounds. It's a juggling act between phase shift and
> impedance matching. Reference: "The Simplest Phased Array Feed System
> ... That Works", Roy Lewellen, W7EL, ARRL Antenna Compendium, Vol 2.

http://users.rcn.com/dmurphy.nai/marc/howto/foxhunt/gnvrdf.pdf
I've used this design a fair bit, it works nicely.
Look under "Well, how do I get a directional bearing"

4643. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 13:28:37 UTC
From: William Manley <kb4xe@arrl.com>
Message-ID: <35cf9c09a542c24df2f4ed50657481f2@news.teranews.com>
Source record: 97915

Interesting discussion. It appears that Fry is searching for a reason
to both questions as opposed to an solution. If so then that can hardly
be understood by simply debating alternative solutions.

I propose a non-technical explanation. There are two fundamental factors:

1 Instances are always contingent.
2 The velocity of radiation is not infinite.

Give this understanding then a solutions rest with the modeling and
analysis of the inter-dependancy of the DC levels which exist in a
realistic time domain.

What more need be said?

regards,

bill.

Richard Fry wrote:
> Why would varying the pulse width without changing the characteristics of
> the pulse transitions (rise/fall) affect the harmonic content of the pulse?
> No bandwidth and no harmonics at all are produced by the constant DC level
> of the pulse before and after each transition.
>
> Wouldn't the harmonic structure and bandwidth needed to produce/reproduce a
> pulse be related only to the rise and fall times of that pulse, and the
> transition shapes (sin^2, etc), and be independent of the width (time)
> between the transitions?
>
> RF
>
> Visit http://rfry.org for FM broadcast RF system papers.
>
>

4644. Re: 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 13:54:25 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <leC7c.14936$Ec6.4819@nwrddc02.gnilink.net>
Source record: 97916

"'Doc" <w5lz@cwis.net> wrote in message news:405ECE0A.7759B4FC@cwis.net...
>
>
> Dale,
> I'm not disputing your claims, but what does "slightly
> more integrated gain", mean?
> 'Doc

We sent all the commercially available omnis to the Motorola anechoic chamber in Boynton Beach FL. Traditional shortened dipole type omnis (loop/haloes) showed an elliptical AZ pattern- about 3dB "out of omni" as I recall. If one only measured the gain off the front or rear this style antenna had more gain than the isosceles triangle style omni- whose electrical length is longer than a half wave. However if one looked at the gain every 10 degrees or so of azimuth and averaged this over the full 360 degrees, the triangle style had more gain- again, from memory, it was about 0.5 dB better- not a lot, but in the right direction. Modeling confirms both the pattern and gain.

Dale W4OP

4645. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 14:21:44 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <405EF678.5E40483E@cwis.net>
Source record: 97917

Jack,
Don't really see anything wrong with your methodology. I
hope
the 'fun' is in the 'getting there', 'cuz with more than one set
of 'legs' on the antenna, you'll get to do the testing/tuning
at least twice for each set, after doing each set. At least
that's
been my experience (never lucky enough to get it 'right' the
first
several times LOL!)...
'Doc

4646. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 14:29:36 UTC
From: jaroslavlipka@msn.com
Message-ID: <d7855f42.0403220629.7cbe2485@posting.google.com>
Source record: 97918

Richard Clark <kb7qhc@comcast.net> wrote in message
> >
> >
> >
>
> Hi Jaro,
>
> That is a presumption not supported by any evidence much less
> observable in your correspondence. You respond as a social critic
> often, and to take me to task for that same office exposes your having
> little talent for it.

I must admit it does not come naturaly, I do tend to struggle a bit.
>
> As a social critic, you should examine the quality of your education
> closer. For instance, English is one of the few, if not only,
> languages that distinguishes and capitalizes the first person pronoun
> - I.
Fair dinkum!

To a social examiner, the persistent usage of the lower case i
> would suggest problems of either self perception, or over exposure to
> the works of e.e. cummings.

None of the above, just put it down to a basic education and a lack
of observation when reading other posts, but I thank you for "your"
observation and I assure you I will get it right in future. Have
checked out e.e. cummings but I'm not one for poetry thanks.
>
>
> Your support of Art certainly serves to relieve your
> boredom - one of those decadent Old World problems of ennui?

You are right again, boredom is a killer,
>
>
> Jaro, please don't let this dissuade you from more entries here, their
> quality heightens the contrast to real participation.

Thank you for your invitation, I am happy to continue to post but
as I pointed out it does not come naturaly, so I will have to ration
them out. Is that ok with you?.

>> Let's just say your prejudice has the same weight as Art's proofs
you
> fail to comprehend - could we say ï¿½therial

Oh dear! thats the second time I have had to check my dictionary in
this post. My interpretation of that is a bit "Airy Fairy"
>
G'Day Richard
I limit myself to learning one new word a day, so if
you decide to reply please don't over do it, thanks.

Jaro.

4647. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 15:26:16 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403220726.7890d719@posting.google.com>
Source record: 97769

jaroslavlipka@msn.com (jaroslav lipka) wrote in message
news:<d7855f42.0403202039.44b751dc@posting.google.com>...
> nm5k@wt.net (Mark Keith) wrote in message
news:<25eb70d7.0403180829.34db72d3@posting.google.com>...
> >
> > Art, Just quit all this whining.
> > Whine, whine, whine...Thats what gets my goat...And this whining
> > involved me....MK
>
> G'day Keith
> don't know where you get the idea that Art's whining
> from,

Have they kept you stored in a closet? He whines about the NG, and
it's participants. He whines about his supposed lack of edjucashun. He
whines about his medical problems. He whines about antenna modeling
programs that he doesn't even own or use. He whines because no one
seems to take his antenna too seriously. He just whines....

but from the way i read his last post he write's like someone
> who knows exactly what he has got, and what it will do and is
> confident that when the time comes he can prove it,and to answer your
> question "that" is what my money is on.

I wouldn't hold your breath. You, "or he" will die before he decides
what he has. He grabs at different straws about once every two months
trying to "explain" what he has. It's this constant straw grabbing
that attracts the attention of many.

Oh sure, he "knows" what he has, but whether what he has conforms with
reality and the laws of modern science is another thing entirely. I've
been watching him talk about the antenna for 2-3-4 years, and I still
see no indication he has ever actually built one for current use,
besides his little 160m thing, which seems somewhat unrelated to what
I modeled. He says he used to run one at some point in time....But
even making something and using it, does not automatically mean his
description of it's operation is factual. What FIRST got me to model
his "loopole" was his claim that you would see collinear gains with
this device.
That was the first thing I had to shoot down...Landed with a might
thud it did...His comments of that type ended quickly. But he won't
believe my claims that his loop/cap device is nothing but a simple
matching device. "others descriptions of linear resonator devices
non-withstanding" I'm not totally sold on that theory as far as
getting a match in itself. His views of "coupling" are very distorted

in my opinion. That why I asked him a few days ago to describe coupling. He declined to answer...

> To put it plainly far from whining i get the impression he
> was telling you to "go take a jump",
> Jaro.

He wants to tell nearly everyone on here to take a jump. Doesn't bother me...MK

4648. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 15:33:12 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403220733.164feb96@posting.google.com>
Source record: 97770

jaroslavlipka@msn.com (jaroslav lipka) wrote in message
news:<d7855f42.0403210613.d316811@posting.google.com>...
> Richard Clark <kb7qhc@comcast.net> wrote
> >
> > Hi Jaro,
> >
> > I presume by this you haven't any idea how it could be proven
> > yourself?
>
>
> G'day Richard
>
> Why am i not surprised you jumped in. As i have
> stated before i know very little about Antenna's, but i do consider
> myself a reasonable judge of people.

This cracks me up....You say you don't know much about antennas, but
you feel fairly sure Art is right as far as his antenna is concerned,
because you are good judge of people. Thats truly priceless... :/ MK

4649. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 15:46:44 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <ETD7c.1168$qw1.529@newssvr23.news.prodigy.com>
Source record: 97771

It looks like if we extrapolate the reactance will go to zero below 7 MHz
and change sign. So it's still too long!
73
Hank WD5JFR
"Jack Twilley" <jmt+usenet@twilley.org> wrote in message
news:86ekrlru1y.fsf@duchess.twilley.org...
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

The weekend was beautiful, so I was able to do some outside work.

I measured the antenna's impedance over 40m, then shortened the 40m
legs by two feet each. I then measured the antenna's impedance again,
and came up with numbers more closely resembling what I'd expect:

Frequency Resistance Reactance Impedance
7.00 14 6 15.2
7.05 18 15 23.4
7.10 18 21 27.7
7.15 21 20 29.0
7.20 24 27 36.1
7.25 28 36 45.6
7.30 28 43 51.3

These measurements were done using a slightly different method. This
time, I set the noise bridge for R=50 X=0 with the power off, then
tuned the drive on my receiver for maximum noise before powering on
the noise bridge and finding the null. The noise bridge manual is not
as detailed as I would like, and it's not clear what the "proper"
method is, but this produces reasonable results.

The impedance is well within a 2:1 match throughout the voice segment,
and a 3:1 match across the entire band.

In other news, I happened to tune across 20m for the last five minutes
of the Virginia QSO Party, and I made two contacts (NC4S and N4NW).
I feel better about the performance of my antenna on that band, but I
really hope that it's because the tuning somehow helped, and not that
contesters are the only ones willing to dig into the noise.

So it seems like I'm on the right track. I am going to try
lengthening the antenna by six inches and doing another round of
testing before moving on to the second set of legs, unless someone
- From the newsgroup pipes up with a correction to my methodology.

Jack.
- --

Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAXtAfGPFSfAB/ezgRAgeFAJ4mwb8Xk5Z0QuPAD3FyooEvhc8t5gCgnEMx
gqrpyBBX4Y0FzaR1VPcnAXI=
=+myT
-----END PGP SIGNATURE-----

4650. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 16:20:34 UTC
From: aRKay <noemail@foobar.com>
Message-ID: <noemail-27FA34.10203322032004@newssvr22-ext.news.prodigy.com>
Source record: 97772

Irv/Terry,

Thanks but no thanks..... I am not ready to go up and remove the rotor
at this time. Talk about a PITA

dick -aa5vu

In article <405DC8CD.85CAB9@shaw.ca>, Irv Finkleman <finkirv@shaw.ca>
wrote:

> Dick, the pot I refer to is in the Rotor -- not the control unit. It is
> not the calibration control pot which is in the control unit, but rather
> the pot in the rotor itself.

In article <6e6aeba9.0403211954.2666091e@posting.google.com>,
t_ashland@yahoo.com (Terry Ashland) wrote:

> I've experienced the problems you have outlined. I agree with Irv.
> The problem is more than likely the pot in the rotor. Norm's rotor
> service has the parts for a reasonable price.
> Good luck!
> WK0F, Terry

4651. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 17:10:19 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <a9ydnXnnOI1rgMLdRVn-sA@comcast.com>
Source record: 97773

Jack,
For what its worth, I ran EZNEC on a 40m dipole at 17 feet. I think you said yours was less than 20 feet up. For a flat top dipole, I got a resonant impedance of 23 Ohms. When I dropped the ends 15 degrees, the impedance dropped to 17 Ohms. Sort of in line with what you are getting. Also, with multiple dipoles the impedance will be less, because you can not completely ignore the other radiators. Maximum gain was in the straight up direction. Gain was about 6db down at 25 degrees elevation. On 15 meters, you have 4 lobes offset about 45 degrees from ends/broadside. Gain was about 3db down at 30 degrees elevation.

Why don't you post your complete configuration. Height at feedpoint, and length and end point height for the three radiators.

Tam/WB2TT
"Jack Twilley" <jmt+usenet@twilley.org> wrote in message news:86ekrlru1y.fsf@duchess.twilley.org...
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

The weekend was beautiful, so I was able to do some outside work.

I measured the antenna's impedance over 40m, then shortened the 40m legs by two feet each. I then measured the antenna's impedance again, and came up with numbers more closely resembling what I'd expect:

Frequency Resistance Reactance Impedance
7.00 14 6 15.2
7.05 18 15 23.4
7.10 18 21 27.7
7.15 21 20 29.0
7.20 24 27 36.1
7.25 28 36 45.6
7.30 28 43 51.3

These measurements were done using a slightly different method. This time, I set the noise bridge for R=50 X=0 with the power off, then tuned the drive on my receiver for maximum noise before powering on the noise bridge and finding the null. The noise bridge manual is not as detailed as I would like, and it's not clear what the "proper" method is, but this produces reasonable results.

The impedance is well within a 2:1 match throughout the voice segment, and a 3:1 match across the entire band.

In other news, I happened to tune across 20m for the last five minutes of the Virginia QSO Party, and I made two contacts (NC4S and N4NW).

I feel better about the performance of my antenna on that band, but I really hope that it's because the tuning somehow helped, and not that contesters are the only ones willing to dig into the noise.

So it seems like I'm on the right track. I am going to try lengthening the antenna by six inches and doing another round of testing before moving on to the second set of legs, unless someone - From the newsgroup pipes up with a correction to my methodology.

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAXtAfGPFSfAB/ezgRAgeFAJ4mwb8Xk5Z0QuPAD3FyooEvhc8t5gCgnEMx
gqrpyBBX4Y0FzaR1VPcnAXI=
=+myT
-----END PGP SIGNATURE-----

4652. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 17:11:15 UTC
From: richardharrison@webtv.net
Message-ID: <28032-405F1E33-356@storefull-3254.bay.webtv.net>
Source record: 97774

Mark, NM5K wrote:
"What FIRST got me to model his "loopole" was his claim that you could
get collinear gain with his device."

Art`s unexplained claims amazed me so I jotted them down.

1) More gain than other antennas
2) Useable SWR`s also
3) Rotatable with under 200 ft turning space
4) No heavier than the lightest antennas on the market
5) Can be made wide banded
6) Can be made narrow banded
7) Can be made variable frequency operative
8) Can be automated for maximum gain
9) Can be automated for best SWR

As I recall, all those claims come from one posting but the list may be
incomplete.

I responded that the posting seemed an advert.

Art seems to ignore in his "loopole" that tight coupling means
resonances in the loop and pole are interactive, not independent.

Art should produce some numbers to back gain and SWR superiority claims.

Best regards, Richard Harrison, KB5WZI

4653. Re: Three short simple questions about antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 17:33:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lf5u50l815sdr4aa6ab5iahhjianntddnt@4ax.com>
Source record: 97775

On 22 Mar 2004 06:29:36 -0800, jaroslavlipka@msn.com (jaroslav lipka) wrote:
>Have checked out e.e. cummings but I'm not one for poetry thanks.

That is too bad. e.e. cummings is one of our great populist poets who would have had a rap sheet a mile long in the current administration's Office of Homeland Scrutiny. Read "i sing of Olaf glad and big"; or do a search of the archives here for my complete quote of it and to observe I also offer equally profound technical leads in that same post. I will admit that both paths are very dense. For instance, note that e.e. cummings uses the lower case quite deliberately as a stylistic slap in the face of convention. This is an inversion of the low self esteem one would analyze, and instead is very aggressive and dominates the material.

> Thank you for your invitation, I am happy to continue to post but
>as I pointed out it does not come naturaly, so I will have to ration
>them out. Is that ok with you?.

Do as you wish. EVERY post made is a deliberate choice of topic and concern by any poster. When the technical content about a technical topic drops to zero, I too find relief from the consequent boredom by then analyzing style. Any frequent correspondent who lacks proficiency in both technical expertise and writing style is bound to be disappointed by my attention.

>>... could we say ï¿½therial
>
> Oh dear! thats the second time I have had to check my dictionary in
>this post. My interpretation of that is a bit "Airy Fairy"

Well, perhaps that interpretation is a bit stretched, but it is fair to say you had to go as far to match my own reach. The spelling I used is archaic (for purposes of stylistic variation) but ultimately it infers something that has so little substance as to be very light.

> G'Day Richard
> I limit myself to learning one new word a day, so if
>you decide to reply please don't over do it, thanks.
>
> Jaro.

Hi Jaro,

When writing for fun (such as for this forum), over doing it is my specialty, be it in the technical arena, or the critical dialectic. Otherwise (as in my professional writing) I can be quite terse. The

quality is the same. I am both a trained engineer through a dozen technical schools (at which I have also taught) and hold degrees in languages and the arts. For Art, this translates into "fractured English" which in reality he should perhaps substitute the word pompous or didactic. ;-)

73's
Richard Clark, KB7QHC

4654. Re: 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 17:42:26 UTC
From: richardharrison@webtv.net
Message-ID: <3181-405F2582-319@storefull-3256.bay.webtv.net>
Source record: 97778

Scott, N0EDV wrote:
"I have plans for something similar from the RSGB VHF/UHF Manual, but it doesn`t show the feedpoint matching in detail, so I`m not sure how to match it to 50 Ohms."

Mine is the 3rd edition with Halo Aerials starting on page 7.29. Make the shorting bar (A) adjustable in distance from the PL259, instead of brazed to the brass tubes. Adjust for minimum reflected power in your 50-ohm coax.

Best regards, Richard Harrison, KB5WZI

4655. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 17:44:03 UTC
From: Jeff Liebermann <jeffl@comix.santa-cruz.ca.us>
Message-ID: <gc8u50tq84te0mbfofe2ha3osvg5guphb1@4ax.com>
Source record: 97780
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Sun, 21 Mar 2004 23:00:47 +0000, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that Jeff Liebermann
><jeffl@comix.santa-cruz.ca.us> wrote (in <c1tr509eqipks7lt08ttt5cvnpkumu
>89u3@4ax.com>) about 'CB Radios, Cellphones and Gasoline Vapor
>Ignition', on Sun, 21 Mar 2004:
>>I didn't know that it wasn't linear.

>Google for Paschen's Law. For high voltages it is linear enough for
>calibrated spark gaps to be used as voltmeters in the past. The high-
>voltage terminals were open and accessible, giving a whole new meaning
>to the phrase 'Paschen killers'.(;-)

Yep. That's it. Thanks. Haven't seen that since kollege. Also saw
your comments on the topic in other usenet news articles. So much for
my simplified view of ionization.

Online spark gap calculator:
http://www.cirris.com/testing/voltage/arc.html

Minimum breakdown voltage in air at STP is about 350VDC. For RF, that
would be:
350 * 0.707 = 192 Vrms
Into a 50 ohm antenna at the coax connector,
P = E^2 / R = 192 * 192 / 50 = 737 watts
for any size spark gap. I don't know of any kilowatt cell phones
around, but that's the power output needed to arc at the antenna
connector. It might be somewhat lower due to the effects of RF vs DC.
Also a suitably weird antenna could be fabricated to dramatically
increase the voltage at some point. However, those coils are usually
up in the air where they cannot get close to a ground suitable for
forming a spark gap.

--
Jeff Liebermann 150 Felker St #D Santa Cruz CA 95060
(831)421-6491 pgr (831)336-2558 home
http://www.LearnByDestroying.com AE6KS
jeffl@comix.santa-cruz.ca.us jeffl@cruzio.com

4656. Re: Attenuators for Direction Finding???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 17:46:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <519u50he7n9uvol4nr5ie81mtpl6jof7rk@4ax.com>
Source record: 97776

On Mon, 22 Mar 2004 12:22:53 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>What is the matter with the receiver gain control?

Because most are not true gain controls, but instead are squelch level controls (quite obvious if the S-meter changes with the position of the so-called RF Gain setting). When doing this kind of hunting by decimation of signal, it is the interfering signal to co-channel signal ratio that matters. As you close in on the interfering source, that ratio changes, but you still need the sensitivity to reckon a bearing while at the same time attenuating both. In such cases the front end levels are expendable (through an external attenuator), the sensitivity is not (through the internal "gain" control).

73's
Richard Clark, KB7QHC

4657. Looking for 7/72 RADCOM article

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 17:52:52 UTC
From: Giunio Costantini IZ0DGE <iz0xyz@tiscali.it>
Message-ID: <MPG.1ac9466a12c1af26989abe@news.tin.it>
Source record: 97777

Hello,
I'm looking for an article in the July 1972 issue of RadCom:
"Magnetic Devices Series 951 Coaxial Relay".
Can anyone help me?
Any info on those relays would also be very appreciated.
Thanks.
if you reply via email, check the call in the address

--
73 de IZ0DGE
Giunio Costantini

4658. Re: 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 17:55:34 UTC
From: richardharrison@webtv.net
Message-ID: <3183-405F2896-36@storefull-3256.bay.webtv.net>
Source record: 97779

Dale, W4OP wrote:
"We sent all the commercially available omnis to the Motorola anechoic chamber in Boynton Beach, FL."

My first concern would be horizontal polarization, not eccentricity in azimuth. In a mobile station, I first would want to work other local mobiles.

Best regards, Richard Harrison, KB5WZI

4659. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 19:40:24 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c3nfiq$d53$1@newshost.mot.com>
Source record: 97781

"...easy way ..."? To change the phase, yes.... To change the pattern,
Probably not. The impedance changes with the phase relationship. Antennas
feed power to each other. Try searching for "Phased arrays".

--
Steve N, K,9;d, c. i My email has no u's.
"John Smith" <pani@yahoo.com> wrote in message
news:c3lovg$28ui6o$1@ID-225206.news.uni-berlin.de...
> If I have two antennas hooked up to a transmitter, is there an easy way to
> very the phase to one or both of the antennas
> to be able to change the pattern around electronically?
>
> Thanks
>
>

4660. Re: Balun for printed dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 19:46:45 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c3nfun$d9o$1@newshost.mot.com>
Source record: 97782

"Marty" <martineclement@hotmail.com> wrote in message
news:1cb70bc7.0403201805.65c89d6c@posting.google.com...
> Hello, I am presently designing a 915MHz printed dipole that will be
> directly connected to a transmitter chip (one arm is directly
> connected to the RF pin and the other to the RF GND pin) all on the
> same PCB. Since the dipole is not connected to a coaxial cable, do I
> need a balun? Theoretically, I'm assuming I don't need one since the
> input to the antenna and the input to the chip are both balanced.

"input to the antenna ...*Input* to the chip" ??? This is
confusing. "balanced"...yet one side goes to "ground".

> I
> did some simulations with HFSS and I seem to be able to make my dipole
> decently resonate at the frequency (S11 is about -7dB).

Is HFSS driving it with a balanced drive?

Nonetheless, if it works use it.

--
Steve N, K,9;d, c. i My email has no u's.

> So I assume I
> don't need a balun, and I should be happy with the results. I'm just
> not sure I should completely rely on the simulation results. I also
> don't understand why S11 isn't lower at the resonant frequency.
>
> Any feedback would be appreciated. I need to design this antenna by
> Monday!
>
> Thank you!

4661. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 20:07:19 UTC
From: Guy Macon <http>
Message-ID: <686dnUOmHeLh2sLdRVn-gQ@speakeasy.net>
Source record: 97783
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jeff Liebermann <jeffl@comix.santa-cruz.ca.us> says...
>
>John Woodgate <jmw@jmwa.demon.contraspam.yuk> wrote:
>
>>Google for Paschen's Law. For high voltages it is linear enough for
>>calibrated spark gaps to be used as voltmeters in the past. The high-
>>voltage terminals were open and accessible, giving a whole new meaning
>>to the phrase 'Paschen killers'.(;-)
>
>Yep. That's it. Thanks. Haven't seen that since kollege. Also saw
>your comments on the topic in other usenet news articles. So much for
>my simplified view of ionization.

I am removing Mr. Woodgate from my killfile. I was under the
impression that he only wanted to post about politics in the wrong
newsgroup, but obviously I was wrong. My apologies to Mr. Woodgate.

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4662. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 21:01:53 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <5vI7c.1237$cT3.895@newssvr23.news.prodigy.com>
Source record: 97784

Thanks, I'll dig out Kraus..
Hank
"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:20275-405E7EAD-367@storefull-3255.bay.webtv.net...
> Henry Koleanik, WD5JFR wrote:
> "Anyone really know theory behind these things?"
>
> The Isotron is a small tuned loop. Tuning gets rid of reactance which
> would cripple performance were it not removed from the loop.
>
> A small loop has a null perpendicular to the plane of the loop. Energy
> suppressed in directions of the loop`s axis is radiated in the plane of
> the loop giving a directivity power gain of about 1.5 (not dB, where
> it`s just under 2 dB gain) over an isotropic radiation in the plane of
> the loop as in other directions as well.
>
> The bad news is that even made with a large surface area, the small
> loop`s loss resistance looms large as compared its radiation resistance.
>
> The 3rd edition of Kraus` "Antennas" is a clear source of single-turn
> circular loop information. Fig.7-10 on page 209 gives radiation
> resistance versus loop circumference. Fig. 7-11 gives directivity.
>
> If radiation resistance were 0.5 ohm and r-f resistance were 0.5 ohm,
> efficiency would be:
> 0.5/1=50%
>
> Kraus has Fig. 7-17 on page 217 which gives radiation efficiency as a
> function of frequency for a 1-m-diameter single-turn 10mm copper tubing
> loop in air. At 1 MHz, the loss is about 40 dB. At 10 MHz, the loss is
> about 6 dB. The radiation resistance of the loop is rising more rapidly
> than is the loss resistance as frequency goes up. The loss is enormous.
> This is ok for reception in most cases, but it`s very dear for
> transmitting.
>
> Best regards, Richard Harrison, KB5WZI
>

4663. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 21:13:58 UTC
From: noname <noaddr@invalid.microsoft.com>
Message-ID: <405f56d8_2@news.arcor-ip.de>
Source record: 97785
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Nico Coesel" <nico@puntnl.niks> wrote in message
news:405e167b.32890183@news.planet.nl...
>
> I'm pretty sure that it won't work that simple. There are other
> factors at play that make controlling things with a telephone a lot
> harder to achieve than you think... For everyone's safety I'm not
> going into the details.

You could, only there are no details.

Using a ringer's voltage levels is indeed easy, there is really nothing to hide because every EE student can figure out the details for himself. Let's use an example. Since I'm not a terrorist, I assume that the circuit is used to light a lamp as an aid for a hearing-impaired person who could than turn on his hearing aid in case it was off, and do not encourage anyone to put anything else in place of that lamp. To make it even less usable for certain people, the following example relies on the ringer NOT being removed from the circuit so it would ring (this way an additional time delay cannot be used). The amplifying of the ringer signal can be done with only one transistor, the voltage offsets be provided with a normal and a shottky diode. Let's also assume that the ringer is a dynamic and not a piezoelectric one, since with a piezo the circuit would differ slightly. A reed relay could do the switching. Using an NPN, the circuit would look like this: Negative ground, connected with ringer's "-", to battery "-" and through a forward-biased shottky to the emitter. The transistor's base connected through a 2K2 resistor to battery "+". Base also connected to diode "+", while diode "-" is connected to ringer "+". Collector through relay coil to battery "+", a capacitor across the relay coil. That's it. The relay contacts can be used to switch on a lamp, connected to the same battery and placed so that the hearing-impaired person can easily see it. Note to hearing-impaired preople: this circuit may not always work, it depends on the type of ringer and on the volume setting. I did not test it with any ringers either, but I think many old-style ones should do.

4664. grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 21:19:46 UTC
From: stylzmovements2000@yahoo.com
Message-ID: <51eca3ef.0403221319.59674934@posting.google.com>
Source record: 97786

how do you ground an antenna , if you live in a hight rise building
here in chicago, most of the building are sourrunded by concrete and
there is no open soil, i have cold water pipe here , can that work ?
or should i get some ground rods and drive it thru the concrete to
make my ground?

4665. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 21:39:17 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-084D1D.15391722032004@newssvr24-ext.news.prodigy.com>
Source record: 97787

Irv/Terry,

Thanks but no thanks..... I am not ready to go up and remove the rotor
at this time. Talk about a PITA

dick -aa5vu

In article <405DC8CD.85CAB9@shaw.ca>, Irv Finkleman <finkirv@shaw.ca>
wrote:

> Dick, the pot I refer to is in the Rotor -- not the control unit. It is
> not the calibration control pot which is in the control unit, but rather
> the pot in the rotor itself.

In article <6e6aeba9.0403211954.2666091e@posting.google.com>,
t_ashland@yahoo.com (Terry Ashland) wrote:

> I've experienced the problems you have outlined. I agree with Irv.
> The problem is more than likely the pot in the rotor. Norm's rotor
> service has the parts for a reasonable price.
> Good luck!
> WK0F, Terry

4666. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 21:39:32 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-EE85C6.15393222032004@newssvr24-ext.news.prodigy.com>
Source record: 97788

Irv/Terry,

Thanks but no thanks..... I am not ready to go up and remove the rotor
at this time. Talk about a PITA

dick -aa5vu

In article <405DC8CD.85CAB9@shaw.ca>, Irv Finkleman <finkirv@shaw.ca>
wrote:

> Dick, the pot I refer to is in the Rotor -- not the control unit. It is
> not the calibration control pot which is in the control unit, but rather
> the pot in the rotor itself.

In article <6e6aeba9.0403211954.2666091e@posting.google.com>,
t_ashland@yahoo.com (Terry Ashland) wrote:

> I've experienced the problems you have outlined. I agree with Irv.
> The problem is more than likely the pot in the rotor. Norm's rotor
> service has the parts for a reasonable price.
> Good luck!
> WK0F, Terry

4667. Re: grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-22 21:49:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <70nu505ms9812v6s77ild356b29na8sok9@4ax.com>
Source record: 97789

On 22 Mar 2004 13:19:46 -0800, stylzmovements2000@yahoo.com (g subs) wrote:
>how do you ground an antenna , if you live in a hight rise building
>here in chicago, most of the building are sourrunded by concrete and
>there is no open soil, i have cold water pipe here , can that work ?
>or should i get some ground rods and drive it thru the concrete to
>make my ground?

Hi OM,

There is no inherent advantage to ground except if you live in a high lightning prone area (and your building would take care of that liability anyway).

Being elevated above the sod presents you with a situation where you are already "floating" with respect to ground. This implies that any antenna you construct will be composed of the balanced dipole, or with a radiator and counterpoise. This last is simply an artifice because the difference between the two hardly matters.

On the flip side, there are a lot of metallic conductors that do attach to ground, lo so far below, that will complicate issues of resonance and patterns (and perhaps add losses, what with the usual brick, concrete, wood, and interior furnishings being within the field). As you are in very little control over these matters, you must learn to adjust (that is why we have tuners).

These metallic conductors will include the ground wire of the three wire AC system, and you do need to use it purposefully. It is a SAFETY ground, not an RF ground. The two may be mixed through deliberation or certainly through accident (or call it luck, but not a luck to count on). It would be better to be deliberate and do the RF ground thing through employing dipoles (vertical as well horizontal) or monopoles with radials (more likely one counterpoise which comes very close to that vertical dipole thingy). You can tie RF ground to your SAFETY ground (at one point only! more can bring grief). Make sure your equipment ties there too (usually enforced through common construction techniques and the three prong plug if code has not been violated).

73's
Richard Clark, KB7QHC

4668. Re: Looking for 7/72 RADCOM article

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 00:15:34 UTC
From: "owen.home" <owen.home@ntlworld.com>
Message-ID: <dkL7c.78$kO3.10@newsfe1-win>
Source record: 97790

Giunio
That edition of Radcom just happened to be in a pile I'm reading, it's a very short article - just mentions that it's 50ohms and the relay is suitable for UHF ~450MHz, crosstalk is -39dB, various coil voltages are available up to 100v and that the 12v version has a coil resistance of 170ohms.
Regards
John
MW1FGQ
"Giunio Costantini IZ0DGE" <iz0xyz@tiscali.it> wrote in message news:MPG.1ac9466a12c1af26989abe@news.tin.it...
> Hello,
> I'm looking for an article in the July 1972 issue of RadCom:
> "Magnetic Devices Series 951 Coaxial Relay".
> Can anyone help me?
> Any info on those relays would also be very appreciated.
> Thanks.
> **if you reply via email, check the call in the address**
>
> --
> 73 de IZ0DGE
> Giunio Costantini

4669. Info wanted on animal transmitter seeking equipment??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 00:26:19 UTC
From: thatcher <thatc4@net.com>
Message-ID: <c3o0u803010@enews2.newsguy.com>
Source record: 97791

I've tried doing a google search but came up with nothing.

I noticed on TV when tracking animals with TX collars they hold the
3 element beam behind the reflector. Seems that this would be a problem.

I have a HT that I want to DF with.... How and where would I connect an
analog
S-meter like I've seen on TV.

4670. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 01:10:02 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86lllsv05x.fsf@duchess.twilley.org>
Source record: 97792

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Dave" == Dave Shrader <david.shrader@comcast.net> writes:

Dave> Your antenna is resonant a little BELOW 7.000 MHz. Is that what
Dave> you expect?

Actually, my goal is for the antenna to be resonant at 7.150. If it's
resonant too low, then I need to shorten the wires even more, right?

Dave> W1MCE

Jack.
(higher frequency is shorter wavelength)
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAX45wGPFSfAB/ezgRAo4lAKCgcj3oVMYNxuesHR+dWX/RijVd6ACfUY2a
X/44ZVxZispMQOrqW0eGgcU=
=RyMs
-----END PGP SIGNATURE-----
```

4671. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 01:11:01 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86brmov04a.fsf@duchess.twilley.org>
Source record: 97793

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Unfortunately my wife doesn't have as much fun with that part as I do.

Looks like I'm in for a month or so of iterations.

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAX46pGPFSfAB/ezgRAgVvAKC9qIfAYWT5+5ZXYwhYfK7rbBaDfACfXxKp
mRbLo0U3ZcPGcDMcuDi+EB8=
=LOnQ
-----END PGP SIGNATURE-----
```

4672. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 01:14:44 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <867jxcuzy3.fsf@duchess.twilley.org>
Source record: 97794

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Tam" == t-tammaru <Tam> writes:

Tam> Jack, For what its worth, I ran EZNEC on a 40m dipole at 17
Tam> feet. I think you said yours was less than 20 feet up. For a flat
Tam> top dipole, I got a resonant impedance of 23 Ohms. When I dropped
Tam> the ends 15 degrees, the impedance dropped to 17 Ohms. Sort of in
Tam> line with what you are getting. Also, with multiple dipoles the
Tam> impedance will be less, because you can not completely ignore the
Tam> other radiators. Maximum gain was in the straight up direction.
Tam> Gain was about 6db down at 25 degrees elevation. On 15 meters,
Tam> you have 4 lobes offset about 45 degrees from
Tam> ends/broadside. Gain was about 3db down at 30 degrees elevation.

That doesn't look so bad at all.

Tam> Why don't you post your complete configuration. Height at
Tam> feedpoint, and length and end point height for the three
Tam> radiators.

Over the next couple of days, I'll take some careful measurements of
the antenna, its supports, and the distance of everything from the
back of the house. The house was built in the 1940s and was
constructed with wood and concrete with a stucco finish.

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAX4+LGPFSfAB/ezgRAtjlAJ4wxt16eFbsHlxu+C7OvsfHqoX4MwCg+UEd
NkhKArjbg1fF1h2YeURz7Sc=
=bKgV
-----END PGP SIGNATURE-----
```

4673. Info Wanted: AEA WM-30 Cross Needle HF Power/ SWR Meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 02:25:33 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-D5C8EF.20253222032004@newssvr24-ext.news.prodigy.com>
Source record: 97795

Anybody know where I can find a picture of a AEA WM-30 Cross Needle HF Power/ SWR Meter? A URL address would be great.

I wonder when it was sold and how it stacks up vs. a Diawa cross needle?

Dick - AA5VU

4674. Parallel balun problem with wire loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 02:28:32 UTC
From: loopfan <loopfan@loopy.null>
Message-ID: <khN7c.34538$%06.16462@newsread2.news.pas.earthlink.net>
Source record: 97796

Where do I begin?

Let me say that I need help analyzing a dual-balun problem with my short loop. I have a configuration that is working great, but other than that it shows that I know next-to-nothing about why it is working ...

I have a short wavelength (about 0.10 wavelength long) wire loop attached to the balanced port eyelets of a 1:1 voltage balun from W2AU.

I am using twin-lead feedline but get this: the feedline is ALSO attached to the the balanced port eyelets of the voltage balun. The unbalanced port with the SO-239 jack is unused and unterminated. THIS is driving me crazy since it seems to work.

At the end of my feedline I am connected to my tuner's 4:1 internal voltage balun. (An old Swan/Cubic Tee-type tuner).

I definitely need the loop balun, otherwise my loop becomes a noisy omnidirectional random wire. This wacky configuration seems to be the only thing that keeps the whole system balanced, and I don't know why.

(I have also tried using a current balun (W2DU), but it also turns my short directional loop into a random wire.)

It just plain looks wrong even though it works great. I'd appreciate some feedback on my funky configuration. Since the antenna covers many bands with the tuner, I make no attempt at matching the feedline impedance to the loop, and use a tuner to resonate the whole system.

I've made a web-page about my projects in case you want to look at it and laugh. My project site has info about my experiences with coax-loops, but I have since moved on to plain wire loops since they seem to perform as well or better than the coax-made ones.

htt://www.greertech.com/gpmag/gpmagloop.html

You can find the remote configuration at the bottom of the page.

I just can't explain what's going on here and could use your help. Many thanks in advance!

73 de LoopFan

4675. Re: Info wanted on animal transmitter seeking equipment??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 02:41:11 UTC
From: Ray Gaschk <rgaschk@astound.net>
Message-ID: <c3o84u$g5j$1@news.astound.net>
Source record: 97800

Thatcher,

Some receivers have a jack that makes the AGC voltage available, if your has that a sensitive voltmeter could be used there. If tracking on 2 meters, there is some advantage to monitoring the third harmonic on the 440 band, or use a local oscillator-mixer technique to offset the frequency you monitor to minimize the likelihood of
over powering the receiver.

Alan Broadband company makes a device they call
"Zap Checker" Used by some for tracking.
You might look at www.zapchecker.com see if you could use it. I have a model 180 that has both linear and log response.

Why would holding the antenna behind the reflector pose a problem? I think most doing animal tracking know little about RF and are not using the equipment they have to
their best advantage. Also possibly using the wrong frequency for the application. I have talked to some
Federal Rangers about the animal tracking they do and they have little time to learn the best techniques and possibly little incentive to learn and apply.

I hope you are successful in your tracking.

Best wishes from ray
"thatcher" <thatc4@net.com> wrote in message
news:c3o0u803010@enews2.newsguy.com...
> I've tried doing a google search but came up with nothing.
>
> I noticed on TV when tracking animals with TX collars they hold the
> 3 element beam behind the reflector. Seems that this would be a problem.
>
> I have a HT that I want to DF with.... How and where would I connect an
> analog
> S-meter like I've seen on TV.

4676. Re: Through the wall antenna connection - LIGHTNING

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 02:44:51 UTC
From: Warren Bowery <kc8ykq@arrl.net>
Message-ID: <Xns94B4DC873D63Cwbowerybrightnet@216.196.97.132>
Source record: 97797

Anyone have an idea as to how much loss would occur using one of the 4"
bulkhead connectors at 2 meters? I ran LMR 400 cable from my Arrow J-pole
straight through the wall to my 2 meter radio for low loss. However, when
a storm approaches, I currently connect the PL to a shorted SO-239 to short
the antenna to ground (I grounded the antenna to a ground rod tied to our
service ground.) I would rather not invite lightning into my home at all
and just disconnect the antenna where it enters the house when it storms,
but I don't want to lose a lot of signal in the process.

My HF dipole is easier to deal with at least - I just throw the ladder line
out the window!

Thanks...

Warren

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in
news:65WdnYIESIBf38fd4p2dnA@comcast.com:

> A few years ago I bought 4 of these things at cablexperts to go through
> a garage wall. Don't know if they have any longer than 6".
>
> Tam/WB2TT
>
>

4677. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 02:55:53 UTC
From: richardharrison@webtv.net
Message-ID: <3182-405FA739-162@storefull-3256.bay.webtv.net>
Source record: 97799

Steve Nosko wrote:
"To change the phase, yes...To change the pattern. Probably not."

Certainly changing just the phase of the signal between two identical driven elements makes an enormous difference in radiation pattern.

My newest copy of the ARRL Antenna Book is the 19th edition, but most editions will have a figure similar to Fig 11 on page 8-8 of my copy.

The double-page figure is arranged into (8) vertical columns of radiation patterns. Each column is for a different physical spacing between the two parallel elements. All of the (5) patterns in a vertical column have the same physical space between elements.

The only change between patterns in a vertical column is the phase angle between the two elements. The top pattern is for 0-degrees between the elements; they are fed in-phase. Other patterns are given for: 45, 90, 135, and 180-degrees electrical phasing between the two elements. It is obvious that the pattern changes every time the phase between the elements changes.

There are several ways to get the desired phase change. Roy Lewallen has written an article in QST on the subject and has entered suggestions in the ARRL Antenna Book. You can find them for yourself. Commercial arrays often use a special T-network.

Best regards, Richard Harrison, KB5WZI

4678. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 03:01:11 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403221901.3cdacc11@posting.google.com>
Source record: 97798
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

don@manx.misty.com (Don Klipstein) wrote in message
news:<slrnc5t1td.aag.don@manx.misty.com>...
> In <7c584d27.0403210545.76dad16b@posting.google.com>, Bill Sloman wrote
> in part:
> >
> >I had to work through the equations many years ago for an experiment
> >intended to monitor the process in which one of the "Dewar benzenes"
> >converted itself to normal - Kekule's - benzene, which is an
> >enormously energetic process, involving about an order of magnitude
> >more energy per molecule than you get out of TNT and PETN. I really
> >didn't want to blast my experimental apparatus to smithereens.
> >
> >When I went through the calculations with my supervisor, he pulled a
> >very long face - the motivation for the experiment had been some
> >unexpected flashes of light seen when a dumb organic chemist had
> >released small drops of liquid "Dewar benzene" into a hot cell, and my
> >calculations made it clear that the flashes of light were just thermal
> >radiation from a hot plasma, rather than fluorsecence from from an
> >electronically excited state of Kekule benezene, which is what my
> >supervisor had been hoping for ...
> >
> >For the difference between Dewar benzene and Kekule benzene see
> >
> >http://www.chemsoc.org/exemplarchem/entries/2001/robson/benzenering.htm
>
> If this produces anything near 10x the energy per weight of TNT or PETN,
> then a version with controlled reaction rate would make one heck of a
> rocket propellant.
>
> I thought the ultimate energy per mass was magnesium and oxygen (or was
> it beryllium and oxygen?), just a few times as much energy per mass as TNT
> and not good like usual rocket propellants for producing gas to use as
> rocket exhaust.

It depends on the electrochemical gradient, I think.
Hydrogen burning in fluorine probably produces more combustion
energy than anything else, per unit mass.

>
> I am surely skeptical of changing one isomer of a molecule to another
> producing even comparable energy to, let alone more energy than
> decomposition of a similar or somewhat greater mass molecule of high
> explosive.

I share this skepticism. Burning TNT probably would produce 10x more
free energy than detonating it.

John
jwill@AstraGate.net
John Michael Williams

4679. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 03:12:01 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403221912.681a1e8f@posting.google.com>
Source record: 97801
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jeff Liebermann <jeffl@comix.santa-cruz.ca.us> wrote in message
news:<gc8u50tq84te0mbfofe2ha3osvg5guphb1@4ax.com>...
> On Sun, 21 Mar 2004 23:00:47 +0000, John Woodgate
> <jmw@jmwa.demon.contraspam.yuk> wrote:
>
> >I read in sci.electronics.design that Jeff Liebermann
> ><jeffl@comix.santa-cruz.ca.us> wrote (in <c1tr509eqipks7lt08ttt5cvnpkumu
> >89u3@4ax.com>) about 'CB Radios, Cellphones and Gasoline Vapor
> >Ignition', on Sun, 21 Mar 2004:
> >>I didn't know that it wasn't linear.
>
> >Google for Paschen's Law. For high voltages it is linear enough for
> >calibrated spark gaps to be used as voltmeters in the past. The high-
> >voltage terminals were open and accessible, giving a whole new meaning
> >to the phrase 'Paschen killers'.(;-)
>
> Yep. That's it. Thanks. Haven't seen that since kollege. Also saw
> your comments on the topic in other usenet news articles. So much for
> my simplified view of ionization.
>
> Online spark gap calculator:
> http://www.cirris.com/testing/voltage/arc.html
>
> Minimum breakdown voltage in air at STP is about 350VDC. For RF, that
> would be:
> 350 * 0.707 = 192 Vrms
> Into a 50 ohm antenna at the coax connector,
> P = E^2 / R = 192 * 192 / 50 = 737 watts
> for any size spark gap. I don't know of any kilowatt cell phones

Then again, some users seem to be able to put in kilohours of talk.
Does that count? (just kidding).

Seriously, into air at the antenna,

P = E^2/377 ~= 97 W.

A very sharp tip would create an additional gradient,
which suggests trying to spark with a sharpened antenna against
something metallic at AC ground.

> around, but that's the power output needed to arc at the antenna
> connector. It might be somewhat lower due to the effects of RF vs DC.
> Also a suitably weird antenna could be fabricated to dramatically
> increase the voltage at some point. However, those coils are usually

> up in the air where they cannot get close to a ground suitable for
> forming a spark gap.

John
jwill@AstraGate.net
John Michael Williams

4680. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 03:51:26 UTC
From: richardharrison@webtv.net
Message-ID: <28032-405FB43E-464@storefull-3254.bay.webtv.net>
Source record: 97802

Richard Fry wrote:
"Please explain the reason why the bandwidth characteristics needed to generate a single transistion from one DC level to another is different than when repeating that same transition any number of times before or after."

No answer from Reg Edwards has appeared on my screen and it`s 6 hours later in England than in the central U.S.A., so Reg may be sleeping.

The transitions are likely quite similar from one repetition to the next but more is involved. It`s true that the shorter the length of the pulse, the higher the efficiency of the harmonic generator. It is also true that there is an optimum pulse length for maximum output at the harmonic frequency. Pulse duration as well as on-off transition times are involved. Output of a harmonic generator is a multiple of the pulse frequency.

Terman has harmonic generator information starting on page 473 of his 1955 edition. This is slanted toward Hollow-State devices which were still dominant at the time.

Best regards, Richard Harrison, KB5WZI

4681. Propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 05:01:28 UTC
From: bunnydawg <r.heenan@sympatico.ca>
Message-ID: <yzP7c.11893$re.1004317@news20.bellglobal.com>
Source record: 97803

Sometimes the only reason i open my mouth is to change feet but here goes.
What measurement is indicitive of good propagation.
Solar Flux level or Solar storm activity (i think it's called)
May sunspots which might be solar flux. Heck i'm confused. I guess what
i'm looking for is a simple answer to what is to me a complex thing. Years
ago when i first go my license propagation wasn't a question because it was
always good. Now i need to know when it's good and i'm unsure what i should
me looking for.
Robert
VE3 something or other.

4682. SBB& - Comet tuning instructions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 06:23:03 UTC
From: Dan <lists@elp.rr.com>
Message-ID: <tqlv50po6ka2url9rmf9gbjqnrvslhq37o@4ax.com>
Source record: 97804

I bought a dual bander comet mobile antenna but did not get any instructions for it regarding tuing. Anyway have a set that could mail me or make a copy ?? please email me if so.

I tried the mfgs site no luck..
Any ideas??
thanks

4683. Re: SBB7 - Comet tuning instructions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 06:24:56 UTC
From: Dan <lists@elp.rr.com>
Message-ID: <s0mv50didfbe0puca72nslfo3vud9knn4e@4ax.com>
Source record: 97805

The antenna is a COmet SBB7 dual band mobile antenna
thanks

4684. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 06:37:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <edlv501ikfcd6kkqniuc0vhfh2te4ajn4s@4ax.com>
Source record: 97806

On Mon, 22 Mar 2004 17:10:02 -0800, Jack Twilley
<jmt+usenet@twilley.org> wrote:
>Actually, my goal is for the antenna to be resonant at 7.150. If it's
>resonant too low, then I need to shorten the wires even more, right?

Hi Jack,

Resonance is not all that it is cracked up to be. Be careful of
seeking something that yields little return on your effort.

For instance, the numbers you've offered show a very low Z for that
anticipated goal. This means you will still need to transform that
value to reduce SWR, which in its own pursuit is an equally low yield
return.

You will need a tuner any way you look at it, and the higher R values
at the higher frequencies are probably more due in part to the loss of
nearby ground, rather than the miracle of a neighboring resonance.

My guess is that you have already obtained an optimal situation = it
don't get any better than this even with all the trimming you may
accomplish. Worse, you could double its height and contacts may never
notice the improvement in "efficiency." Basically all your work is to
achieve bragging rights, and you could cheat and start bragging right
now to no one's challenge.

73's
Richard Clark, KB7QHC

4685. Re: SBB& - Comet tuning instructions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 06:39:10 UTC
From: dplatt@radagast.org
Message-ID: <105vmsefpk5a10b@corp.supernews.com>
Source record: 97807

In article <tqlv50po6ka2url9rmf9gbjqnrvslhq37o@4ax.com>,
Dan <lists@elp.rr.com> wrote:

>I bought a dual bander comet mobile antenna but did not get any
>instructions for it regarding tuing. Anyway have a set that could mail
>me or make a copy ?? please email me if so.

As far as i can remember, all of the 2-meter/70cm mobile antennas I've
ever seen are pre-tuned, and aren't intended for user adjustment. The
only "tuning" I'd expect is in the installation - choose a good
location on the vehicle frame to place the mount, and make sure that
there's a solid ground connection.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4686. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 06:47:28 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <j9OdnQyjSeiFQMLdRVn-hw@comcast.com>
Source record: 97808

So, who said anything about a stun gun?

"Howard" <mensch90249@yahoo.com> wrote in message

> Your right Jeppe, instead of using the NON-LETHAL stun gun we should
> just shoot folks to subdue them.

4687. Re: Parallel balun problem with wire loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 07:37:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q7nv50d3etgnpuq2hhq39l322g41s0t29s@4ax.com>
Source record: 97809

On Tue, 23 Mar 2004 02:28:32 GMT, loopfan <loopfan@loopy.null> wrote:

>Where do I begin?

After reading this, that is what I asked myself too.

>Let me say that I need help analyzing a dual-balun problem with my short
>loop.

Small loop would be a better description. Also, loops are described
in diameters (or radius) not conductor length. Yes, there is a
correlation, and yes it is important to note the wavelength dimension
of that conductor length, but it is uncommon and most references stick
with diameter/radius for many and good reasons (such as radiation
resistance formulae).

>I have a configuration that is working great, but other than that
>it shows that I know next-to-nothing about why it is working ...

Which proves a little knowledge is dangerous I suppose, but we proceed
in good faith.

>I have a short wavelength (about 0.10 wavelength long) wire loop
>attached to the balanced port eyelets of a 1:1 voltage balun from W2AU.

Things were OK to this point.

>I am using twin-lead feedline but get this: the feedline is ALSO
>attached to the the balanced port eyelets of the voltage balun. The
>unbalanced port with the SO-239 jack is unused and unterminated. THIS
>is driving me crazy since it seems to work.

Yup, it caused me a whiplash too. I can't ask "why" you would want to
do this because you already admit you know next-to-nothing.

>At the end of my feedline I am connected to my tuner's 4:1 internal
>voltage balun. (An old Swan/Cubic Tee-type tuner).

That much makes sense - in isolation of the other statements.

>I definitely need the loop balun

Considering you have described two BalUns, this reference is vague.

>, otherwise my loop becomes a noisy
>omnidirectional random wire.

You confirm one of the qualities of the BalUn. Obviously it
reinforces your hunch of doing something right (now if we can only

differentiate what that something is).

>This wacky configuration seems to be the
>only thing that keeps the whole system balanced, and I don't know why.

That is the same quality that rejected the noise: balance. This
balance through choking has eliminated common mode currents that blows
away the nulls by filling them in.

>(I have also tried using a current balun (W2DU), but it also turns my
>short directional loop into a random wire.)

How you did this is missing. If it was done in parallel with this
twin-lead, then you have what is called a ground loop, you shorted out
the choke. Again (with that "if") I won't ask why.

>It just plain looks wrong even though it works great. I'd appreciate
>some feedback on my funky configuration.

Fun-Kay!

>Since the antenna covers many
>bands with the tuner, I make no attempt at matching the feedline
>impedance to the loop, and use a tuner to resonate the whole system.

All perfectly reasonable - in isolation of the other statements.

>I've made a web-page about my projects in case you want to look at it
>and laugh. My project site has info about my experiences with
>coax-loops, but I have since moved on to plain wire loops since they
>seem to perform as well or better than the coax-made ones.
>
>htt://www.greertech.com/gpmag/gpmagloop.html

You (and everyone else) should cut and paste links from a browser
opened to the page that is referenced so we don't have the mistake
above. Typing URLs from memory often reveals IQ problems.

>You can find the remote configuration at the bottom of the page.
>
>I just can't explain what's going on here and could use your help. Many
>thanks in advance!
>
>73 de LoopFan

Hi OM,

The W2DU BalUn is an unnecessary item, dangling there like an
appendix. At most it is additional capacitance at the feed point.

Now, why you chose to switch from coax to twin-lead is a personal
issue. The distances involved do not demand it of necessity, that
much is certain. It cannot have anything to do with balance, because
your loop worked well with the coax and W2DU already. It works, which
is true enough, and enough to say it is simply a different way of

accomplishing the same thing.

As for the other material on your page about wire size, you need some real data instead of those qualitative statements. I will repeat some that I posted here:
>Let's look at small loops' Rr for various sizes in tabulated form:
> Fo 1M diameter Efficiency with 1 mOhm loss
> 160M 29 ï¿½Ohms 2.8%
> 80M 500 ï¿½Ohms 33%
> 60M 1.5 mOhms 60%
> 40M 7.5 mOhms 88%
> 30M 24 mOhms 96%
> 20M 120 mOhms 99%
>
>Let's examine the validity of that generous assignment of 1 mOhm loss
>and see if it is reasonably warranted. Skin effect is the single
>largest contributor to this loss as a source (aside from poor
>construction techniques). Using the 1M diameter loop as being a
>practically sized construction, and if we're using 2.54cM diameter
>copper wire/tubing we find:
> Fo skin effect loss
> 160M 13.8 mOhms
> 80M 20 mOhms
> 60M 23 mOhms
> 40M 28 mOhms
> 30M 33 mOhms
> 20M 39 mOhms
>
>Well, 1 mOhm was too generous and if we look at those loops' Rr once
>again against a robust, thick loop element:
> Fo 1M diameter Efficiency with skin effect loss
> 160M 29 ï¿½Ohms 0.2%
> 80M 500 ï¿½Ohms 2.4%
> 60M 1.5 mOhms 6%
> 40M 7.5 mOhms 21%
> 30M 24 mOhms 42%
> 20M 120 mOhms 75%
>
Now, admittedly, this work above has a different diameter. but not much different. It also reveals mediocre efficiency for 40M, but you steer your readers away from that towards a much lossier system.

You might want to reflect on where the efficiency goes in your suggested designs. Anecdotal reports such as yours suggest the #12 wire is fine, but the statement about large conductors being poor sensitivity is suspect (you are suffering different issues). Basically there is a conflict here you need to resolve.

By the way, flat strips are NOT better as substitutes for conductor mass. If you must use aluminum-foil, wrap it around a hula hoop for the round conductor shape that is much MORE efficient. You might want

to reflect how you are going to insure such aluminum-foil constructions are going to maintain low mOhm conductivities - it doesn't automatically come by wishing it so. Such foil oxidizes quite rapidly on the unwaxed side (did you know there are two different sides?). Needless to say, the waxed side isn't particularly conductive either. Trying to solder to seams or make leads brings even more issues spelled Ohm.

With small loops, the name of the game is resistance: pure and lossy.

73's
Richard Clark, KB7QHC

4688. Re: Propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 07:54:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <28qv505g95ugvm74utqeu6jdng032e5890@4ax.com>
Source record: 97810

On Tue, 23 Mar 2004 00:01:28 -0500, "bunnydawg"
<r.heenan@sympatico.ca> wrote:

>Sometimes the only reason i open my mouth is to change feet but here goes.
>What measurement is indicitive of good propagation.
>Solar Flux level or Solar storm activity (i think it's called)
>May sunspots which might be solar flux. Heck i'm confused. I guess what
>i'm looking for is a simple answer to what is to me a complex thing. Years
>ago when i first go my license propagation wasn't a question because it was
>always good. Now i need to know when it's good and i'm unsure what i should
>me looking for.
>Robert
>VE3 something or other.
>
Hi Robert,

Throw your call out and count returns. Far faster than looking it up
on the net. As there is nothing you can do about the Sun, knowing
does not particularly mean knowledge - after all, what choice do you
have?. When people read the numbers and interpret them as bad, they
are often confounded to learn the ignorant simply made contacts in
spite of this sophistry.

73's
Richard Clark, KB7QHC

4689. Re: A Simple Harmonic Generator.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 08:16:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hcrv5012hjmf4i5nfe4q322ib1iijq2d8r@4ax.com>
Source record: 97811

On Mon, 22 Mar 2004 21:51:26 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Richard Fry wrote:
>"Please explain the reason why the bandwidth characteristics needed to
>generate a single transistion from one DC level to another is different
>than when repeating that same transition any number of times before or
>after."
>

Hi Richard (KB5WZI),

I liked your Hollow state reference, and it exposes how inordinately complex such a topic becomes (what has it got to do with antennas anyway? The ennui of bored continentals...). For decades, equipment has subsisted quite well with the 1/10/100 KC XTAL marker generator that pushed harmonics out through to the 10M band. Even simpler is a Zener operating at its knee region of conduction with the entire bandwidth awash in its wall-to-wall RF trash. Even the NE-2 does as well. Tarting it up with poor illustrations of Fourier math (which are actually FFTs) serves no better application.

Gee fellows, if we must ponder this math try analyzing a Chirp function, or a ramp, or sawtooth, or sweep, or a damped sine. I think the square wave and variants has been suitably covered. Try a 359 degree sine wave and discover the trash it leaves behind.

73's
Richard Clark, KB7QHC

4690. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 08:29:43 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86vfkwt18o.fsf@duchess.twilley.org>
Source record: 97812

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Richard" == Richard Clark <kb7qhc@comcast.net> writes:

Jack> Actually, my goal is for the antenna to be resonant at 7.150.
Jack> If it's resonant too low, then I need to shorten the wires even
Jack> more, right?

Richard> Hi Jack,

Richard> Resonance is not all that it is cracked up to be. Be careful
Richard> of seeking something that yields little return on your
Richard> effort.

This is a very good point.

Richard> For instance, the numbers you've offered show a very low Z
Richard> for that anticipated goal. This means you will still need to
Richard> transform that value to reduce SWR, which in its own pursuit
Richard> is an equally low yield return.

Yes, but pursuing a match close to 1:1 and an impedance close to 50
ohms seems to be a reasonable pursuit, if I understand correctly.

Richard> You will need a tuner any way you look at it, and the higher
Richard> R values at the higher frequencies are probably more due in
Richard> part to the loss of nearby ground, rather than the miracle of
Richard> a neighboring resonance.

Possibly. I hope a accurate description of my antenna's geometry and
surrounding structures will assist in resolving this question.

Richard> My guess is that you have already obtained an optimal
Richard> situation = it don't get any better than this even with all
Richard> the trimming you may accomplish. Worse, you could double its
Richard> height and contacts may never notice the improvement in
Richard> "efficiency." Basically all your work is to achieve bragging
Richard> rights, and you could cheat and start bragging right now to
Richard> no one's challenge.

That's a reasonable guess. However, I think I've got a bit more
experimenting to do before I can reach that conclusion. I disagree
with the assertion that "bragging rights" is the goal here, though. I
don't see any point in bragging -- there's nothing terribly unusual or
special about what I'm doing. I'm not going after DXCC with a
magnetic loop the size of a ream of paper, or WAS from a radio in an
Altoids can. I'm just trying to have the best antenna my environment

and budget can support.

Richard> 73's Richard Clark, KB7QHC

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAX/V8GPFSfAB/ezgRAt50AKCq7zoLl5a5QFvJXYhAqDDvynP32QCbBm+I
inV/OPyW2pLenSTK/jppimE=
=m5xy
-----END PGP SIGNATURE-----

4691. Re: Through the wall antenna connection - LIGHTNING

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 08:48:24 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <64uv50h9f5rln94sbeosenhmeess2i7bbj@4ax.com>
Source record: 97813

On Mon, 22 Mar 2004 20:44:51 -0600, Warren Bowery <kc8ykq@arrl.net>
wrote:

>Anyone have an idea as to how much loss would occur using one of the 4"
>bulkhead connectors at 2 meters? I ran LMR 400 cable from my Arrow J-pole
>straight through the wall to my 2 meter radio for low loss. However, when
>a storm approaches, I currently connect the PL to a shorted SO-239 to short
>the antenna to ground (I grounded the antenna to a ground rod tied to our
>service ground.) I would rather not invite lightning into my home at all
>and just disconnect the antenna where it enters the house when it storms,
>but I don't want to lose a lot of signal in the process.
>

Put a metal or plastic cover of the outside end of the bulkhead
connector. Use a slip on PL259 equivelant, or just a pl250. Put in
at least 2 ground rods about 8 feet apart and tie them together with
some good heavy bare copper wire. #2 or #4. Solder a chassis
connector to this (SO-239) with both sides grounded to the copper.
How your do this is open to variation.

At any rate, when a storm approaches, or you are not using the rig,
just go outside, disconnect the coax from the bulk head connector and
connect it to the grounded connector.

You can get really fancy if you have the tools and create a grounding
switch that will swing the coax from the bulk head connector to the
crounded connector. I've seen it done with a couple of metal plates
and either 5 or 6 cables. Bit of an over kill in this case, but it's
the same general idea.

Good Luck,

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>My HF dipole is easier to deal with at least - I just throw the ladder line
>out the window!
You can do the same with coax, but it's a good idea to cap it to keep
the water out<:-))

>
>Thanks...
>
>Warren
>
>

>"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in
>news:65WdnYIESIBf38fd4p2dnA@comcast.com:
>
>> A few years ago I bought 4 of these things at cablexperts to go through
>> a garage wall. Don't know if they have any longer than 6".
>>
>> Tam/WB2TT
>>
>>

4692. Re: Parallel balun problem with wire loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 09:34:47 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <406004B7.F2B46060@cwis.net>
Source record: 97814

Richard,
It sounds like the balun at the loop's feed point is
adding inductance, not capacitance, wouldn't you think?
As for the 'why' of doing it that way, I can think of
several reasons, both intentional and not, ranging from
a "lets see what happens", to "oops, forgot to disconnect
the thing"...
'Doc

```
------------
| |
| |
| |
--oUUUUUUo--
| |
F F
L L
```

Not the best graphics in the world, but 'close'.

4693. Re: Parallel balun problem with wire loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 09:58:40 UTC
From: loopfan <loopfan@loopy.null>
Message-ID: <kTT7c.34975$%06.24819@newsread2.news.pas.earthlink.net>
Source record: 97815

Hi Richard,

Wow - thanks for the feedback!

First off, I have totally removed the section about using twin-lead. You are right, there is really no need for it considering the low coaxial feedline cable loss at HF. I think I got tunnel-visioned on some freak setup I found by accident.

> How you did this is missing. If it was done in parallel with this
> twin-lead, then you have what is called a ground loop, you shorted out
> the choke. Again (with that "if") I won't ask why.

Yes, that is exactly what I did. Shorted choke - not good!

> As for the other material on your page about wire size, you need some
> real data instead of those qualitative statements. I will repeat some
> that I posted here:

Great stuff - I need to go back in and take away some of the more misleading and/or subjective statements.

> By the way, flat strips are NOT better as substitutes for conductor
> mass. If you must use aluminum-foil, wrap it around a hula hoop for
> the round conductor shape that is much MORE efficient. You might want

Ah, ok, so a round mass (pipe,tubing etc) is more efficient than a flat strip even though they seem to share the same area? (ie a 6-inch wide strip compared to a 3-inch diameter pipe) Is it kind of a shape vs. area thing, assuming things like loss resistance are the same?

> rapidly on the unwaxed side (did you know there are two different
> sides?). Needless to say, the waxed side isn't particularly

I did not know that! I just thought the somewhat dull side was just due to manufacturing and not due to wax. Geez, the more I learn the less I know ....

Thanks again for your help - its most appreciated.

73 de WN6F
Brian

4694. Re: Parallel balun problem with wire loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 10:05:33 UTC
From: loopfan <loopfan@loopy.null>
Message-ID: <NZT7c.34977$%06.25647@newsread2.news.pas.earthlink.net>
Source record: 97816

'Doc wrote:

> As for the 'why' of doing it that way, I can think of
> several reasons, both intentional and not, ranging from
> a "lets see what happens", to "oops, forgot to disconnect
> the thing"...

It was the "lets see what happens" situation. I brought the balun home to test with a dipole, and got a flash of inspiration. Unfortunately, I really needed eyelets on the input and the output of the balun and just lashed it up.

I really didn't expect much but was amazed that it worked - and frustrated at the same time because schematically it looked so bogus having two baluns on each end of the feedline.

73 de WN6F

4695. Re: Propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 11:05:43 UTC
From: bunnydawg <r.heenan@sympatico.ca>
Message-ID: <QUU7c.11988$re.1049852@news20.bellglobal.com>
Source record: 97817

Good point. I'm always amazed when i do a cq on a "dead" band and get some exotic dx.
Just back into the hobby thanks to a donation from a really nice ham in the states and glad i did. Didn't know what i was missing till i got back on.
Robert
VE3 something or other
"Richard Clark" <kb7qhc@comcast.net> wrote in message news:28qv505g95ugvm74utqeu6jdng032e5890@4ax.com...
> On Tue, 23 Mar 2004 00:01:28 -0500, "bunnydawg"
> <r.heenan@sympatico.ca> wrote:
>
> >Sometimes the only reason i open my mouth is to change feet but here goes.
> >What measurement is indicitive of good propagation.
> >Solar Flux level or Solar storm activity (i think it's called)
> >May sunspots which might be solar flux. Heck i'm confused. I guess what
> >i'm looking for is a simple answer to what is to me a complex thing. Years
> >ago when i first go my license propagation wasn't a question because it was
> >always good. Now i need to know when it's good and i'm unsure what i should
> >me looking for.
> >Robert
> >VE3 something or other.
> >
> Hi Robert,
>
> Throw your call out and count returns. Far faster than looking it up
> on the net. As there is nothing you can do about the Sun, knowing
> does not particularly mean knowledge - after all, what choice do you
> have?. When people read the numbers and interpret them as bad, they
> are often confounded to learn the ignorant simply made contacts in
> spite of this sophistry.
>
> 73's
> Richard Clark, KB7QHC

4696. Re: 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 12:09:46 UTC
From: acepilot <acepilot@bloomer.net>
Message-ID: <4060290A.8040301@bloomer.net>
Source record: 97818

My book is the 4th edition, so I'm not sure which antenna you have. Is its circumference listed as lambda/2 or 0.7536 lambda? If it's the one I suspect (0.7536 lambda) where do you feed it and where does the shorting bar that you mention go?

Thanks!

Scott
N0EDV

Richard Harrison wrote:
> Scott, N0EDV wrote:
> "I have plans for something similar from the RSGB VHF/UHF Manual, but it
> doesn`t show the feedpoint matching in detail, so I`m not sure how to
> match it to 50 Ohms."
>
> Mine is the 3rd edition with Halo Aerials starting on page 7.29. Make
> the shorting bar (A) adjustable in distance from the PL259, instead of
> brazed to the brass tubes. Adjust for minimum reflected power in your
> 50-ohm coax.
>
> Best regards, Richard Harrison, KB5WZI
>

4697. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 12:11:58 UTC
From: bill.sloman@ieee.org
Message-ID: <7c584d27.0403230411.35e35014@posting.google.com>
Source record: 97669
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

jwill@AstraGate.net (John Michael Williams) wrote in message
news:<4032bf27.0403221901.3cdacc11@posting.google.com>...
> don@manx.misty.com (Don Klipstein) wrote in message
news:<slrnc5t1td.aag.don@manx.misty.com>...
> > In <7c584d27.0403210545.76dad16b@posting.google.com>, Bill Sloman wrote
> > in part:
> > >
> > >I had to work through the equations many years ago for an experiment
> > >intended to monitor the process in which one of the "Dewar benzenes"
> > >converted itself to normal - Kekule's - benzene, which is an
> > >enormously energetic process, involving about an order of magnitude
> > >more energy per molecule than you get out of TNT and PETN. I really
> > >didn't want to blast my experimental apparatus to smithereens.
> > >
> > >When I went through the calculations with my supervisor, he pulled a
> > >very long face - the motivation for the experiment had been some
> > >unexpected flashes of light seen when a dumb organic chemist had
> > >released small drops of liquid "Dewar benzene" into a hot cell, and my
> > >calculations made it clear that the flashes of light were just thermal
> > >radiation from a hot plasma, rather than fluorsecence from from an
> > >electronically excited state of Kekule benezene, which is what my
> > >supervisor had been hoping for ...
> > >
> > >For the difference between Dewar benzene and Kekule benzene see
> > >
> > >http://www.chemsoc.org/exemplarchem/entries/2001/robson/benzenering.htm
> >
> > If this produces anything near 10x the energy per weight of TNT or PETN,
> > then a version with controlled reaction rate would make one heck of a
> > rocket propellant.

Not really. The crucial feature of chemical explosives is that they
produce their energy fast, which is to say by intra-molecular
rearrangement. Burning a hydrocarbon in oxygen produces a lot more
energy per unit mass of fuel and oxidiser than does letting off TNT or
PETN where the oxygen comes from the nitro groups attached to the
hydrocarbon core, whence the popularity of fuel-air bombs, but you
don't get the same brissance.

> > I thought the ultimate energy per mass was magnesium and oxygen (or was
> > it beryllium and oxygen?), just a few times as much energy per mass as TNT
> > and not good like usual rocket propellants for producing gas to use as
> > rocket exhaust.
>

> It depends on the electrochemical gradient, I think.
> Hydrogen burning in fluorine probably produces more combustion
> energy than anything else, per unit mass.

Atomic hydrogen recombining into molecular hydrogen would be better
(as a rocket fuel) but has never been reduced to practice. What I
remember from what I read on the subject - many years ago - was that
hydrogen-fluorine was the best possible fuel-oxidiser combination.
Nasty exhaust fumes ...

> > I am surely skeptical of changing one isomer of a molecule to another
> > producing even comparable energy to, let alone more energy than
> > decomposition of a similar or somewhat greater mass molecule of high
> > explosive.

Check out the published literature - that is all that I was doing at
the time.
Chemical explosives are relatively wimpy as far as energy per unit
mass goes - the rate of energy release is the crucial feature.

> I share this skepticism. Burning TNT probably would produce 10x more
> free energy than detonating it.

Trinitrotoluene is C7H5N3O6 and would burn to 7 CO2 molecules, 2.5 H2O
molecules and 1.5 N2 molecules - for which you'd need 10.5 extra
oxygen atoms, over and above the six oxygen atoms available in the
original TNT molecule.

Being simple-minded about it, 16.5/6 is 2.75, not ten, and that
exaggerates the advantage, because burning carbon to carbon monoxide
release quite a lot more energy than burning carbon monoxide to carbon
dioxide, which is where you use up seven of your extra 10.5 oxygen
atoms.

The exact amounts of energy involved are all available in the open
literature - that is where I found them, some thirty years ago, and
I'm sure that they are still available now.

Bill Sloman, Nijmegen

4698. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 12:27:06 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <u2W7c.67947$SR1.118714@attbi_s04>
Source record: 97670

YEP!!

Jack Twilley wrote:

>
> Actually, my goal is for the antenna to be resonant at 7.150. If it's
> resonant too low, then I need to shorten the wires even more, right?
>

4699. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 12:42:05 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <xgW7c.67240$KO3.224384@attbi_s02>
Source record: 97671

CW wrote:

> So, who said anything about a stun gun?
>
> "Howard" <mensch90249@yahoo.com> wrote in message
>
> > Your right Jeppe, instead of using the NON-LETHAL stun gun we should
>
>>just shoot folks to subdue them.
>
Forty plus years ago I worked for a man who subsequently became
a monk in an Asian faith.

When I knew him he said that all the world's problems are caused by people.

He proposed a simple and elegant solution:

"Eliminate ALL the people, except me!"

Rationale: When there is no one to disagree with me there are no problems.

4700. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 14:19:45 UTC
From: wk8l@yahoo.com
Message-ID: <f25f619b.0403230619.5fc0510f@posting.google.com>
Source record: 97672

Richard,

I think you are confusing the Isotron by Bilial with the Isoloop formarly made by AEA. The Isoloop was a small loop antenna tuned with a large remote variable capacitor like you describe. The Isotron is just a large fixed capacitor (you can make a slight manual tune to it, not remote tune like a magloop) and a muliturn solenoid inductor. I serves as nothing more than a lossy load to dump your power into. The actual antenna is the metal mast you are supposed to attach the Isotron to. The antenna is essetially a small radom wire antenna composed of the metal mast and/or the outside shield of the coax attached. Whatever power is not lost in the Isotron, travels on the metal mast and outside shield of the coax and couples into your house wiring, television and neighbors appliances, and oh yes, a small amount is radiated. It works essetially the same as the supposed cross field and eh antenna. A large LC tank connected to a short random wire antenna composed of the ground lead and outside of the coax shield. If you choke off the current from the ground lead and outside coax shield, you essentially have an unshielded dummy load. Thats all there is to them.

73,
Dan

richardharrison@webtv.net (Richard Harrison) wrote in message news:<20275-405E7EAD-367@storefull-3255.bay.webtv.net>...
> Henry Koleanik, WD5JFR wrote:
> "Anyone really know theory behind these things?"
>
> The Isotron is a small tuned loop. Tuning gets rid of reactance which
> would cripple performance were it not removed from the loop.
>
> A small loop has a null perpendicular to the plane of the loop. Energy
> suppressed in directions of the loop`s axis is radiated in the plane of
> the loop giving a directivity power gain of about 1.5 (not dB, where
> it`s just under 2 dB gain) over an isotropic radiation in the plane of
> the loop as in other directions as well.
>
> The bad news is that even made with a large surface area, the small
> loop`s loss resistance looms large as compared its radiation resistance.
>
> The 3rd edition of Kraus` "Antennas" is a clear source of single-turn
> circular loop information. Fig.7-10 on page 209 gives radiation
> resistance versus loop circumference. Fig. 7-11 gives directivity.
>

> If radiation resistance were 0.5 ohm and r-f resistance were 0.5 ohm,
> efficiency would be:
> 0.5/1=50%
>
> Kraus has Fig. 7-17 on page 217 which gives radiation efficiency as a
> function of frequency for a 1-m-diameter single-turn 10mm copper tubing
> loop in air. At 1 MHz, the loss is about 40 dB. At 10 MHz, the loss is
> about 6 dB. The radiation resistance of the loop is rising more rapidly
> than is the loss resistance as frequency goes up. The loss is enormous.
> This is ok for reception in most cases, but it`s very dear for
> transmitting.
>
> Best regards, Richard Harrison, KB5WZI

4701. Re: Propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 14:22:12 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <40604e7c_3@news1.prserv.net>
Source record: 97673

Another point which is largely lost on non-professional users of the HF spectrum. Good propagation means entirely different things for the professional user as compared to ham expectations. In fact, the two are often exactly opposite. The ham wants to work exotic DX, which often occurs when 'normal' propagation is interrupted, and the professional user is disaccomodated.
--
Crazy George
Both ham and professional HF user.
Remove N O and S P A M imbedded in return address
"bunnydawg" <r.heenan@sympatico.ca> wrote in message
news:QUU7c.11988$re.1049852@news20.bellglobal.com...
> Good point. I'm always amazed when i do a cq on a "dead" band and get
some
> exotic dx.
> Just back into the hobby thanks to a donation from a really nice ham in
the
> states and glad i did. Didn't know what i was missing till i got back on.
> Robert
> VE3 something or other
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:28qv505g95ugvm74utqeu6jdng032e5890@4ax.com...
> > On Tue, 23 Mar 2004 00:01:28 -0500, "bunnydawg"
> > <r.heenan@sympatico.ca> wrote:
> >
> > >Sometimes the only reason i open my mouth is to change feet but here
> goes.
> > >What measurement is indicitive of good propagation.
> > >Solar Flux level or Solar storm activity (i think it's called)
> > >May sunspots which might be solar flux. Heck i'm confused. I guess
what
> > >i'm looking for is a simple answer to what is to me a complex thing.
> Years
> > >ago when i first go my license propagation wasn't a question because it
> was
> > >always good. Now i need to know when it's good and i'm unsure what i
> should
> > >me looking for.
> > >Robert
> > >VE3 something or other.
> > >
> > Hi Robert,
> >
> > Throw your call out and count returns. Far faster than looking it up

> > on the net. As there is nothing you can do about the Sun, knowing
> > does not particularly mean knowledge - after all, what choice do you
> > have?. When people read the numbers and interpret them as bad, they
> > are often confounded to learn the ignorant simply made contacts in
> > spite of this sophistry.
> >
> > 73's
> > Richard Clark, KB7QHC
>
>

4702. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 14:51:26 UTC
From: don@manx.misty.com
Message-ID: <slrnc60jne.1ce.don@manx.misty.com>
Source record: 97674
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In article <4032bf27.0403221901.3cdacc11@posting.google.com>, John
Michael Williams wrote:
>don@manx.misty.com (Don Klipstein) wrote in message
news:<slrnc5t1td.aag.don@manx.misty.com>...
>> In <7c584d27.0403210545.76dad16b@posting.google.com>, Bill Sloman wrote
>> in part:
>> >
>> >I had to work through the equations many years ago for an experiment
>> >intended to monitor the process in which one of the "Dewar benzenes"
>> >converted itself to normal - Kekule's - benzene, which is an
>> >enormously energetic process, involving about an order of magnitude
>> >more energy per molecule than you get out of TNT and PETN. I really
>> >didn't want to blast my experimental apparatus to smithereens.
>> >
>> >When I went through the calculations with my supervisor, he pulled a
>> >very long face - the motivation for the experiment had been some
>> >unexpected flashes of light seen when a dumb organic chemist had
>> >released small drops of liquid "Dewar benzene" into a hot cell, and my
>> >calculations made it clear that the flashes of light were just thermal
>> >radiation from a hot plasma, rather than fluorsecence from from an
>> >electronically excited state of Kekule benezene, which is what my
>> >supervisor had been hoping for ...
>> >
>> >For the difference between Dewar benzene and Kekule benzene see
>> >
>> >http://www.chemsoc.org/exemplarchem/entries/2001/robson/benzenering.htm
>>
>> If this produces anything near 10x the energy per weight of TNT or PETN,
>> then a version with controlled reaction rate would make one heck of a
>> rocket propellant.
>>
>> I thought the ultimate energy per mass was magnesium and oxygen (or was
>> it beryllium and oxygen?), just a few times as much energy per mass as TNT
>> and not good like usual rocket propellants for producing gas to use as
>> rocket exhaust.
>
>It depends on the electrochemical gradient, I think.
>Hydrogen burning in fluorine probably produces more combustion
>energy than anything else, per unit mass.

That one is up there, but let's check heat of formation...

HF gas: 63.991 KCal/mole, 3.19955 KCal/gram

MgO: 145.76 KCal/mole, 3.644 KCal/gram, but with no gaseous output.

>> I am surely skeptical of changing one isomer of a molecule to another
>> producing even comparable energy to, let alone more energy than
>> decomposition of a similar or somewhat greater mass molecule of high
>> explosive.
>
>I share this skepticism. Burning TNT probably would produce 10x more
>free energy than detonating it.

The usual high explosives contain nitrate or nitro-group molecule
portions, or other oxidizers.

TNT does not have enough oxygen in its nitro groups for complete
combustion, so you get some more energy burning it than detonating it.
On the other hand, nitroglycerin and RDX have enough oxygen in their
nitrate groups for complete combustion.

- Don Klipstein (don@misty.com)

4703. Re: grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 14:53:08 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <405ef8fc_5@newsfeed.slurp.net>
Source record: 97675

Water pipes can be a good substitute; just don't be surprised if the building's fire sprinklers go off, or other odd things. Sometimes the water systems are tied together, and random RF can do strange things.

Another good ground substitute is a counterpoinse. Cut 1/4-wave wire for each band (or sub-band) you wish to operate. Attatch the wires to the grounding lug on your antenna tuner or radio (if there is no tuner). Run the wires around the baseboards of your apartment. This can also be augmented by artificial ground devices...

Good luck
Mike KI6PR
El Rancho R.F., CA

"g subs" wrote
> how do you ground an antenna , if you live in a hight rise building
> here in chicago, most of the building are sourrunded by concrete and
> there is no open soil, i have cold water pipe here , can that work ?
> or should i get some ground rods and drive it thru the concrete to
> make my ground?

4704. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 15:46:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40605c32$1_7@corp.newsgroups.com>
Source record: 97676

Richard Harrison wrote:
> The double-page figure is arranged into (8) vertical columns of
> radiation patterns. Each column is for a different physical spacing
> between the two parallel elements. All of the (5) patterns in a vertical
> column have the same physical space between elements.
>
> The only change between patterns in a vertical column is the phase angle
> between the two elements.

Are they assuming equal currents into each element? That's the real trick.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4705. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 15:50:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40605cf8_7@corp.newsgroups.com>
Source record: 97677
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

John Michael Williams wrote:
> I share this skepticism. Burning TNT probably would produce 10x more
> free energy than detonating it.

When you detonate it, what happens to the 90% lost energy?
Fails to actually detonate?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4706. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 16:01:01 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40605f8d_7@corp.newsgroups.com>
Source record: 97678

Dave Shrader wrote:
> Forty plus years ago I worked for a man who subsequently became
> a monk in an Asian faith.
>
> When I knew him he said that all the world's problems are caused by people.

Jesus said essentially the same thing in Mark 7. Wonder why so many alleged
Christians believe, contrary to what Jesus taught, that a person can be defiled
by ingesting something?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4707. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 16:08:06 UTC
From: dplatt@radagast.org
Message-ID: <1060o769pfkkqbe@corp.supernews.com>
Source record: 97679
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In article <kdn060pnn9kei66vv8t0r7dasc43j90au3@4ax.com>,
DarkMatter <TheBartenderBuyMeADrink> wrote:

> First, tell me how one "burns TNT". It is a high explosive. I
>think its "burn rate" would be pretty fast, and not manageable.

High explosives certainly can burn - burning and detonation are
physically different processes.

I remember reading stories of demolition-team soldiers in Vietnam,
heating their rations by taking a small pellet of C-4 plastic
explosive (RDX) and igniting it. It makes a hot flame, quite
sufficient to toast up the C-rations, and does not explode. [Not a
terribly good substitute for a real camp stove, though, as C-4
produces toxic fumes when burned.]

Burning is, in fact, the standard way for the military to dispose of
C-4 from unwanted munitions.

It appears that burning is also a viable method of destroying TNT.
http://www.humanitarian-demining.org/demining/neutral/remic.asp
describes a method for destroying land mines "in situ" via burning.
It's a neat trick - a small shaped charge of explosive creates a
high-velocity gas jet which breaks open the (TNT-loaded) land mine,
and also delivers a charge of a pyrogenic chemical which ignites and
burns the TNT without detonating it.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4708. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 16:15:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40606301_7@corp.newsgroups.com>
Source record: 97680
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

DarkMatter wrote:
> First, tell me how one "burns TNT". It is a high explosive. I
> think its "burn rate" would be pretty fast, and not manageable.

If one arranged the TNT into a fuse, how fast would it burn?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4709. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 16:18:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c3po3a$6se$1@newshost.mot.com>
Source record: 97681

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:3182-405FA739-162@storefull-3256.bay.webtv.net...
> Steve Nosko wrote:
> "To change the phase, yes...To change the pattern. Probably not."
>
> Certainly changing just the phase of the signal between two identical
> driven elements makes an enormous difference in radiation pattern.

Obviously I was not complete in my response. I was focusing on the
"simple" part. Where I was going here was that simply paralleling the two
feeds with different coax lengths to set the phase difference won't do it.
(perhaps too much assumption on my part regarding the OPs desired patterns
and definitino of simple) The job of combiming the two feeds is non-trivial.
If you drive two antennas with a given power ratio (say, equal) but
different phase, the patterns are easy to calculate. However, you can't
just parallel the two lines. For equal powers in the antennas, I believe
the patterns are well known. What about the coupling effect between
antennas?

Richard, Are the patterns in the handbook all equal power division? I
don't think I have a recent handbook...

In a case of a broadcast antenna pattern some years ago, it turned out that
to get one of the desired patterns, one of the antennas had to actually
absorb power. There was a negative resistance term that fell out of one of
the equations and the original engineer had problems desiging the network.
An associate of mine dug into it and figured it out.
'guards,
--
Steve N, K,9;d, c. i My email has no u's.

4710. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 16:27:18 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <e1UC72EmVGYAFw6G@jmwa.demon.co.uk>
Source record: 97682
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that Don Klipstein <don@manx.misty.com>
wrote (in <slrnc60jne.1ce.don@manx.misty.com>) about 'CB Radios,
Cellphones and Gasoline Vapor Ignition', on Tue, 23 Mar 2004:
> That one is up there, but let's check heat of formation...
>
>HF gas: 63.991 KCal/mole, 3.19955 KCal/gram
>
>MgO: 145.76 KCal/mole, 3.644 KCal/gram, but with no gaseous output.

Do you have the figures for CsF?

DON'T TRY THIS AT HOME.(;-)
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4711. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 16:32:53 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <MFwG3DF1aGYAFwak@jmwa.demon.co.uk>
Source record: 97683
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that Cecil Moore <Cecil.A.Moore@ieee.ON
EDOT.org> wrote (in <40605cf8_7@corp.newsgroups.com>) about 'CB Radios,
Cellphones and Gasoline Vapor Ignition', on Tue, 23 Mar 2004:
>John Michael Williams wrote:
>> I share this skepticism. Burning TNT probably would produce 10x more
>> free energy than detonating it.
>
>When you detonate it, what happens to the 90% lost energy?
>Fails to actually detonate?

Sort of. Bill S more or less explained it further up the thread. When it
detonates, it all happens so quickly that only it's on-board oxygen (in
the nitrate groups) is available. So the oxidation is imperfect, and not
all the available energy is released. You get free carbon, carbon
monoxide, oxidized organic residues and nitrogen. When it burns, using
atmospheric oxygen as well, you get carbon dioxide, water and nitrogen -
all the available energy is released.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4712. Re: Propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 17:32:50 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <pNCdnZ9Pv65Z6f3dRVn-gg@amaonline.com>
Source record: 97684

Hi,

You already received good answers. However, may I offer one tool for your
assistance GeoAlert Wizard
www.taborsoft.com

de ku5s

--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.
"bunnydawg" <r.heenan@sympatico.ca> wrote in message
news:yzP7c.11893$re.1004317@news20.bellglobal.com...
> Sometimes the only reason i open my mouth is to change feet but here goes.
> What measurement is indicitive of good propagation.
> Solar Flux level or Solar storm activity (i think it's called)
> May sunspots which might be solar flux. Heck i'm confused. I guess what
> i'm looking for is a simple answer to what is to me a complex thing.
Years
> ago when i first go my license propagation wasn't a question because it
was
> always good. Now i need to know when it's good and i'm unsure what i
should
> me looking for.
> Robert
> VE3 something or other.
>
>

4713. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 17:39:52 UTC
From: richardharrison@webtv.net
Message-ID: <10525-40607668-253@storefull-3252.bay.webtv.net>
Source record: 97685

Dan, WK8L wrote:
"I think you are confusing the Isotron by Bilal with the Isoloop
formerly made by AEA."

I apologize for causing confusion. The Isotron is only a large capacitor
with a trimmer?

A large capacitor has a low reactance and to form a resonant circuit.
must be paired with an equally low reactance of the inductive variety. A
small rod or a small loop, in terms of wavelength, have similarities.

Terman is much more eloquent than I so I`ll quote from page 907 of his
1955 edition:
"The directional pattern is independent of the exact shape of the loop,
provided the loop is small compared with a wavelength.

The directional pattern of a small loop is identical with that of an
elementary doublet. The only difference is that the electric and
magnetic fields are interchanged. For this reason a small loop is often
called a magnetic
doublet.

The radiation resistance of a loop antenna is less the smaller the loop
area. For the radiation resistance to be large enough to give good
antenna efficiency, it is necessary that the loop perimeter be of the
order of a wavelength."

So the name "magloop" may come from "magnetic doublet". When is a loop
small enough to be a 'magloop"? One requirement may be the same current
in all sides of the loop and I`ve seen that specified as a perimeter of
0.1 wavelength or less. Like many specifications it may be arbitrary.

I suppose calling a capacitor an "Isotron" is arbitrary too.

Best regards, Richard Harrison, KB5WZI

4714. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 18:36:09 UTC
From: dplatt@radagast.org
Message-ID: <10610spsums7559@corp.supernews.com>
Source record: 97686

In article <10525-40607668-253@storefull-3252.bay.webtv.net>,
Richard Harrison <richardharrison@webtv.net> wrote:

>I apologize for causing confusion. The Isotron is only a large capacitor
>with a trimmer?

Well, from what I can see of it (based on the diagrams on the Web), it looks rather as if it's intended to behave like a very short dipole. It's center-loaded and resonated with a large coil, and has a really humongous capacity hat (the plates). The center coil, and the short conductors leading from the top and bottom of the coil to the two capacity-hat plates, would do the radiating.

If this is a correct description, then I'd expect the Isotron to suffer from the same limitations as any short, loaded dipole - a low radiation resistance (perhaps only an ohm or two) and a relatively high loss resistance. Used in isolation (e.g. on an ungrounded mast, with a choke on the feedline) its efficiency would be quite poor.

The fact that it's stated that it _must_ be grounded to a metal mast for proper operation raises a big red flag (in my own humble view, at least). This suggests that other folks are correct in asserting that the mast, and the outside of the feedline are doing a lot of the radiating.

It's even possible that in this configuration, the antenna system does its best radiating when the Isotron itself is tuned _away_ from a good match with the feedline, thus forcing significant currents onto the feedline and the mast. One might (in this case) even view the Isotron assembly as being something akin to a transmatch, with its reactivity matching the impedance of the "antenna" (the mast and feedline) to the feedline.

It'd be quite interesting to have somebody set up an Isotron as directed, tune it to get the best signal in and out, and then run an RF current meter over the mast, mast-grounding wire, and feedline when transmitting. If there are relatively high currents present on these conductors, it'd certainly be diagnostic!

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4715. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 18:45:10 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-769861.09451623032004@netnews.worldnet.att.net>
Source record: 97687
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In article <kdn060pnn9kei66vv8t0r7dasc43j90au3@4ax.com>,
DarkMatter <DarkMatter@thebarattheendoftheuniverse.org> wrote:

> First, tell me how one "burns TNT". It is a high explosive. I
> think its "burn rate" would be pretty fast, and not manageable.
>
> That guy's empty skull cavity has a lot of free space in it.

TNT burns just like Sterno. In WWII and Vietnam TNT was used to cook on
just like the Sterno can's were. It is very stable in this decomasition
mode. One can shot it with rifles while burning and it just continues
to burn. Been there, done that, many times.....

Bruce in alaska who also has decomposed TNT the FAST way as well.....
--
add a <2> before @

4716. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 18:45:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6p01605e7448hd9ekubi2f5ichgrbbhdlu@4ax.com>
Source record: 97688

On Tue, 23 Mar 2004 00:29:43 -0800, Jack Twilley
<jmt+usenet@twilley.org> wrote:
>Yes, but pursuing a match close to 1:1 and an impedance close to 50
>ohms seems to be a reasonable pursuit, if I understand correctly.

Hi Jack,

This is an aspiration on par with monks seeking nirvana. The two
illustrate it is the path, not the destination that is meaningful.

There is a very clear point to be made that unless you elevate the
dipole, any 50 Ohm characteristic you observe will more ground loss
than radiation resistance. This is reasonable only in the sense of
ease of tuning and the reductio ad absurdum is bliss can be found in a
dummy load. Clipping the ends of the current structure do not lead to
increased benefit unless you shave your advantage in tenths of a dB.
To put that in perspective, unless you are a teenager, you and your
contacts couldn't possible hear any change below 1dB variation. To
force that perspective further, propagation variation through one QSO
easily varies by that much or more (unless we are talking line of
sight FM with full quieting).

73's
Richard Clark, KB7QHC

4717. Re: Parallel balun problem with wire loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 19:07:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ah1160lebokblflkn0grod0mim8lrpm3ih@4ax.com>
Source record: 97689

On Tue, 23 Mar 2004 09:58:40 GMT, loopfan <loopfan@loopy.null> wrote:
>Ah, ok, so a round mass (pipe,tubing etc) is more efficient than a flat
>strip even though they seem to share the same area? (ie a 6-inch wide
>strip compared to a 3-inch diameter pipe) Is it kind of a shape vs. area
>thing, assuming things like loss resistance are the same?

Hi Jack,

Basic physics of electrostatics teaches us that potential, in the form of charge accumulates on a conductor at its smallest radius. Hence we have lightning rods with sharp points, not flat metal plates occupying the roof as a tile or shingle. The classic Van de Graff generator has a dome construction whereby charge is moved up inside the dome, and it immediately transfers itself to the outside surface (self shielding, the interior has a negative radius in this sense). The dome serves as a storage for the charge and presents the economy of a large radius (the charge pump of the rubber belt presents a small radius inside it). On the other hand, the Jacob's ladder consists of narrow wires that emit continuous streams of arcing with much less voltage (although at impressively high enough potential it is generally 1/10th to 1/100th that of the Van de Graff).

A wire has an obvious radius (in cross section), and the charge is distributed equally over its surface. However, if you hammer this wire flat, the charge then seeks the edges (the smallest radius) and abandons the flat area, starving it of conduction (resistance climbs).

The same phenomenon can be observed in variable capacitors that arc further from their separated edges than from between their more closely situated, meshed flat surfaces. Even with arcs between these flat surfaces, it is always initiated by a site dislocality in the form of a metal whisker or spur (small radius). Hence comes the caution to finely polish the plates of high voltage capacitors.

It is a mistake think surface area alone as the geometry of a circular cross section is more important.

73's
Richard Clark, KB7QHC

4718. Re: Parallel balun problem with wire loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 19:09:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fl2160p8jbgjov3281i7l3c36drg1c1rbs@4ax.com>
Source record: 97690

On Tue, 23 Mar 2004 03:34:47 -0600, 'Doc <w5lz@cwis.net> wrote:

>Richard,
> It sounds like the balun at the loop's feed point is
>adding inductance, not capacitance, wouldn't you think?
>As for the 'why' of doing it that way, I can think of
>several reasons, both intentional and not, ranging from
>a "lets see what happens", to "oops, forgot to disconnect
>the thing"...
> 'Doc
>

Hi Doc,

A current balun design should be a simple short length of open coax
with ferrite beads = capacitor. This is one reason why it is benign
in this mis-application.

73's
Richard Clark, KB7QHC

4719. Re: Who need a radio?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 19:16:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <323160lfopq7ehi6ikiq7cqci5d7ap789j@4ax.com>
Source record: 97691

On Tue, 23 Mar 2004 12:42:05 GMT, Dave Shrader
<david.shrader@comcast.net> wrote:
>"Eliminate ALL the people, except me!"

The Dead Kennedys (or was it the Sex Pistols?) sang it with more flair
"I want my own Planet!"

4720. Re: Propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 19:27:30 UTC
From: bunnydawg <r.heenan@sympatico.ca>
Message-ID: <8f08c.14866$re.1245852@news20.bellglobal.com>
Source record: 97692

Thanks to all that replied. Darn J it's not freeware. I'm on a limited
budget (ok so i'm poor) But i'll play around with the program for a month.
Looks good though.
Robert
VE3 something or other

"J Tabor" <denews@taborsoft.com> wrote in message
news:pNCdnZ9Pv65Z6f3dRVn-gg@amaonline.com...
> Hi,
>
> You already received good answers. However, may I offer one tool for your
> assistance GeoAlert Wizard
> www.taborsoft.com
>
> de ku5s
>
> --
> email sent to: denews@taborsoft.com
> is discarded without being seen.
> Sorry for any inconvenience.
> "bunnydawg" <r.heenan@sympatico.ca> wrote in message
> news:yzP7c.11893$re.1004317@news20.bellglobal.com...
> > Sometimes the only reason i open my mouth is to change feet but here
goes.
> > What measurement is indicitive of good propagation.
> > Solar Flux level or Solar storm activity (i think it's called)
> > May sunspots which might be solar flux. Heck i'm confused. I guess
what
> > i'm looking for is a simple answer to what is to me a complex thing.
> Years
> > ago when i first go my license propagation wasn't a question because it
> was
> > always good. Now i need to know when it's good and i'm unsure what i
> should
> > me looking for.
> > Robert
> > VE3 something or other.
> >
> >
>
>

4721. Re: Propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 19:31:23 UTC
From: bunnydawg <r.heenan@sympatico.ca>
Message-ID: <Ui08c.14942$re.1247174@news20.bellglobal.com>
Source record: 97695

I forgot to ask J. are you an aussie ? Just wondered as my wife is from
Melbourne.
Robert
VE3 something or other.

"bunnydawg" <r.heenan@sympatico.ca> wrote in message
news:8f08c.14866$re.1245852@news20.bellglobal.com...
> Thanks to all that replied. Darn J it's not freeware. I'm on a limited
> budget (ok so i'm poor) But i'll play around with the program for a
month.
> Looks good though.
> Robert
> VE3 something or other
>
> "J Tabor" <denews@taborsoft.com> wrote in message
> news:pNCdnZ9Pv65Z6f3dRVn-gg@amaonline.com...
> > Hi,
> >
> > You already received good answers. However, may I offer one tool for
your
> > assistance GeoAlert Wizard
> > www.taborsoft.com
> >
> > de ku5s
> >
> > --
> > email sent to: denews@taborsoft.com
> > is discarded without being seen.
> > Sorry for any inconvenience.
> > "bunnydawg" <r.heenan@sympatico.ca> wrote in message
> > news:yzP7c.11893$re.1004317@news20.bellglobal.com...
> > > Sometimes the only reason i open my mouth is to change feet but here
> goes.
> > > What measurement is indicitive of good propagation.
> > > Solar Flux level or Solar storm activity (i think it's called)
> > > May sunspots which might be solar flux. Heck i'm confused. I guess
> what
> > > i'm looking for is a simple answer to what is to me a complex thing.
> > Years
> > > ago when i first go my license propagation wasn't a question because
it
> > was
> > > always good. Now i need to know when it's good and i'm unsure what i
> > should

> > > me looking for.
> > > Robert
> > > VE3 something or other.
> > >
> > >
> >
> >
>
>

4722. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 19:43:01 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <z66dna1p9OjbDv3d4p2dnA@comcast.com>
Source record: 97693
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics,sci.electronics.design

On 23-Mar-2004, Bruce in Alaska <bruceg@btpost.net> wrote:

> In article <kdn060pnn9kei66vv8t0r7dasc43j90au3@4ax.com>,
> DarkMatter <DarkMatter@thebarattheendoftheuniverse.org> wrote:
>
> > First, tell me how one "burns TNT". It is a high explosive. I
> > think its "burn rate" would be pretty fast, and not manageable.
> >
> > That guy's empty skull cavity has a lot of free space in it.
>
> TNT burns just like Sterno. In WWII and Vietnam TNT was used to cook on
> just like the Sterno can's were. It is very stable in this decomasition
> mode. One can shot it with rifles while burning and it just continues
> to burn. Been there, done that, many times.....
>
> Bruce in alaska who also has decomposed TNT the FAST way as well.....
> --
> add a <2> before @

While the thread might be interesting to some readers, and granted that the original topic had
something to do with arcing associated with antennas, the discussion of explosives is very off-topic
for rec.radio.amateur.antenna. It might be appreciated if the cross-posting came to an end.
Thank you.

4723. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 19:44:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3q43fmuv1@sparta.btinternet.com>
Source record: 97694

This suggests that other folks are correct in asserting that
> the mast, and the outside of the feedline are doing a lot of the
> radiating.
============================

What's wrong with radiation from the feedline? It's just as useful as
radiation from elsewhere.

4724. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 19:56:10 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <kr2dnXdyl4XHC_3dRVn-jg@comcast.com>
Source record: 97696

On 23-Mar-2004, "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote:

> Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:3182-405FA739-162@storefull-3256.bay.webtv.net...
> > Steve Nosko wrote:
> > "To change the phase, yes...To change the pattern. Probably not."
> >
> > Certainly changing just the phase of the signal between two identical
> > driven elements makes an enormous difference in radiation pattern.
>
> Obviously I was not complete in my response. I was focusing on the
> "simple" part. Where I was going here was that simply paralleling the two
> feeds with different coax lengths to set the phase difference won't do it.
> (perhaps too much assumption on my part regarding the OPs desired patterns
> and definitino of simple) The job of combiming the two feeds is non-trivial.
> If you drive two antennas with a given power ratio (say, equal) but
> different phase, the patterns are easy to calculate. However, you can't
> just parallel the two lines. For equal powers in the antennas, I believe
> the patterns are well known. What about the coupling effect between
> antennas?
>
> Richard, Are the patterns in the handbook all equal power division? I
> don't think I have a recent handbook...
>
> In a case of a broadcast antenna pattern some years ago, it turned out that
> to get one of the desired patterns, one of the antennas had to actually
> absorb power. There was a negative resistance term that fell out of one of
> the equations and the original engineer had problems desiging the network.
> An associate of mine dug into it and figured it out.
> 'guards,
> --
> Steve N, K,9;d, c. i My email has no u's.

I believe that Roy Lewellen published an article in the ARRL Antenna Compendium titled something
like: "The simplest phasing method - That works" in which he goes into the difficulties of getting
the desired phase delays to coupled antenna elements using transmission lines fed from a common
source. The coupled energy has an effect on the feedpoint impedance which affects the phase of the
feedpoint current.

Ken, KO6NO

4725. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 19:57:31 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <LE08c.68354$KO3.228616@attbi_s02>
Source record: 97697
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Cecil Moore wrote:

> When you detonate it, what happens to the 90% lost energy?
> Fails to actually detonate?

Cecil, we can have fun with this! Isn't the missing energy is exciting
a 1/2 wavelength impedance repeater :-)

4726. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 20:07:21 UTC
From: Guy Macon <http>
Message-ID: <H-udnXNBNO5gBf3dRVn-vg@speakeasy.net>
Source record: 97698
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

DarkMatter <DarkMatter@thebarattheendoftheuniverse.org> says...

> First, tell me how one "burns TNT". It is a high explosive. I
>think its "burn rate" would be pretty fast, and not manageable.

You are thinking of low explosives (gunpowder is a good example).
Low explosives burn rapidly - fast enough to explode if confined.
High explosives are detonated as a shock wave propagates through
them, as opposed to low explosives which are detonated as a flame
front propagates through them, There is no reason why one couldn't
burn a high explosive and get a low burning rate.

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4727. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 20:10:21 UTC
From: Guy Macon <http>
Message-ID: <H-udnXJBNO4vBP3dRVn-vg@speakeasy.net>
Source record: 97699
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design

Ken Fowler <ko6no@yahoo.com> says...

>While the thread might be interesting to some readers, and granted that the original topic had
>something to do with arcing associated with antennas, the discussion of explosives is very off-topic
>for rec.radio.amateur.antenna. It might be appreciated if the cross-posting came to an end.
>Thank you.

Point well taken. It's off-topic in sci.electronics.basics as well.
I apologize for participating.

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you
have an "impossible" engineering project that only someone like
Doc Brown can solve? My resume is at http://www.guymacon.com/

4728. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 20:17:04 UTC
From: richardharrison@webtv.net
Message-ID: <5042-40609B40-752@storefull-3257.bay.webtv.net>
Source record: 97700

Cecil, W5DXP wrote:
"Are they assuming equal currents into each element? That`s the real trick."

The subscript says:
"The two elements are assumed to be thin and self-resonant, with equal-amplitude currents flowing at the feed-point."

If everything is symmetrical, the self-impedances and the mutual impedances of the two elements should be equal, producing equal powers into each element.

Roy Lewallen may have been the source of a caution on phasing errors which appears on page 8-13 of the 19th edition of the ARRL Antenna Book. Roy is named on page 8-12.

Kraus says on page 284 of the 1950 edition of "Antennas":
"It is important that the antenna power W be considered constant.---Until the antenna power was considered constant by G.H. Brown (Proc. I.R.E., January 1937) the advantages of closely spaced elements were not apparent. Prior to this time the antenna current had usually been considered constant."

Kraus took a G.H. Brown idea and ran with it producing the W8JK antenna. He had a lot of trouble gettinng the W8JK antenna story published due to naysayers. But it works despite its low impedance.

Best regards, Richard Harrison, KB5WZI

4729. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 20:58:24 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403231258.1de26259@posting.google.com>
Source record: 97701
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

bill.sloman@ieee.org (Bill Sloman) wrote in message
news:<7c584d27.0403230411.35e35014@posting.google.com>...
> jwill@AstraGate.net (John Michael Williams) wrote in message
news:<4032bf27.0403221901.3cdacc11@posting.google.com>...
> ...
>
> > I share this skepticism. Burning TNT probably would produce 10x more
> > free energy than detonating it.
>
> Trinitrotoluene is C7H5N3O6 and would burn to 7 CO2 molecules, 2.5 H2O
> molecules and 1.5 N2 molecules - for which you'd need 10.5 extra
> oxygen atoms, over and above the six oxygen atoms available in the
> original TNT molecule.
>
> Being simple-minded about it, 16.5/6 is 2.75, not ten, and that
> exaggerates the advantage, because burning carbon to carbon monoxide
> release quite a lot more energy than burning carbon monoxide to carbon
> dioxide, which is where you use up seven of your extra 10.5 oxygen
> atoms.

Right, letting the N_3O_6 drop out as nitrogen dioxide,
7*CO_2 + 2.5*H_2O is just 16.5. However, detonation
might not even produce the nitrogen dioxide, and it
might lose energy by producing NO instead of dioxide.
So I'm not sure where the 6 comes from.

Also, the energy from C+O_2 would be much lower than that
from the H_2+O, per O, I think, but I'm not sure how
well defined the combustion process is, that is being
assumed. I think, if detonation in air also entailed
complete combustion, then detonation would
produce the same energy as would direct combustion.

You mentioned something earlier about atomic hydrogen: I
am not sure about this, because combination to H_2 would
just be creation of one covalent bond. Can you explain
further?

>
> The exact amounts of energy involved are all available in the open
> literature - that is where I found them, some thirty years ago, and
> I'm sure that they are still available now.
>
> -------

> Bill Sloman, Nijmegen

John
jwill@AstraGate.net
John Michael Williams

4730. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:15:05 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <1061b58p5m9sadc@corp.supernews.com>
Source record: 97706
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"DarkMatter" <DarkMatter@thebarattheendoftheuniverse.org> wrote in message
news:kdn060pnn9kei66vv8t0r7dasc43j90au3@4ax.com...
> On Tue, 23 Mar 2004 09:50:00 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> Gave us:
>
> >John Michael Williams wrote:
> First, tell me how one "burns TNT". It is a high explosive. I
> think its "burn rate" would be pretty fast, and not manageable.

I've heard more than one ex-Grunt talk about burning C3 to
warm his army chow. Apparently it burns slow without a detonator.
Don't know if trinitrotoluene (hope I spelled it right) can be used
that way.

HWB

4731. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:18:15 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403231318.4e2e0542@posting.google.com>
Source record: 97702
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

don@manx.misty.com (Don Klipstein) wrote in message
news:<slrnc60jne.1ce.don@manx.misty.com>...
> In article <4032bf27.0403221901.3cdacc11@posting.google.com>, John
> Michael Williams wrote:
> >...
> >>
> >> I thought the ultimate energy per mass was magnesium and oxygen (or was
> >> it beryllium and oxygen?), just a few times as much energy per mass as TNT
> >> and not good like usual rocket propellants for producing gas to use as
> >> rocket exhaust.
> > >
> > >It depends on the electrochemical gradient, I think.
> > >Hydrogen burning in fluorine probably produces more combustion
> > >energy than anything else, per unit mass.
> >
> > That one is up there, but let's check heat of formation...
> >
> > HF gas: 63.991 KCal/mole, 3.19955 KCal/gram
> >
> > MgO: 145.76 KCal/mole, 3.644 KCal/gram, but with no gaseous output.

Right. Agreed, although in water, HF produces 78.6 kCal/mole,
putting it ahead of MgO by mass.

The gaseous output would subtract heat energy, so if the goal was
radiant heat and not momentum, MgO would be 'way ahead.

> ...

John
jwill@AstraGate.net
John Michael Williams

4732. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:18:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4060aa00$1_5@corp.newsgroups.com>
Source record: 97703

Richard Harrison wrote:
> If everything is symmetrical, the self-impedances and the mutual
> impedances of the two elements should be equal, producing equal powers
> into each element.

Unfortunately, it is not that easy except under special circumstances.
The element with leading phase often has a different feedpoint impedance
than the element with lagging phase. For instance:

Given two 1/4WL monopoles, 1/4WL apart, and fed 90 degrees apart with
one amp each will exhibit a gain of 3 dBi in one direction. However,
the feedpoint of one element is 20-j20 and the feedpoint of the other
element is 50+j20. The feedpoint voltages are obviously not equal so
to equalize the current magnitudes takes some juggling. That' what
Roy's BASIC program does - finds a solution if one exists.

I once had a BASIC program that calculated the mutual impedances given
the feedpoint impedance of one element alone and the feedpoint impedances
of the two elements during operation but I seem to have misplaced it.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4733. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:22:16 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403231322.65c4e5b1@posting.google.com>
Source record: 97704
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40605cf8_7@corp.newsgroups.com>...
> John Michael Williams wrote:
> > I share this skepticism. Burning TNT probably would produce 10x more
> > free energy than detonating it.
>
> When you detonate it, what happens to the 90% lost energy?
> Fails to actually detonate?

Based on recent postings, my "10x" might be too high,
but what would happen is that the uncombusted atoms
of the TNT would be just accelerated away by the shock
of detonation.

Eventually, they might be combusted, but not as part of
the detonation. So, their combustion energy contribution
isn't counted as part of the explosion.

John
jwill@AstraGate.net
John Michael Williams

4734. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:26:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9na1609pcposnv0p2vneik3ev30o28ecf1@4ax.com>
Source record: 97705

On Tue, 23 Mar 2004 19:44:47 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>What's wrong with radiation from the feedline? It's just as useful as
>radiation from elsewhere.
>
It's like promoting your SUV enjoying 80 MPG (but failing to disclose
that is with a 100 MPH tailwind).

4735. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:28:20 UTC
From: richardharrison@webtv.net
Message-ID: <28032-4060ABF4-582@storefull-3254.bay.webtv.net>
Source record: 97710

Steve Nosko wrote:
"Are the patterns in the handbook all equal power division?"

The subscript says:
"The two elements are assumed to be thin and self-resonant, with
equal-amplitude current flowing at the feed-point."

I think the "Antenna Book" authors were familiar with Kraus` Fig. 11-11 on page 290 of the 1950 edition of "Antennas". Kraus` Fig. 11-11 is similar to the "Antenna Book" Fig 11 on page 8-8 of the 19th edition. Kraus makes a point of G.H. Brown`s equal power observations.

I am familiar with the negative-resistance tower occasionally found in a broadcast array. John E. Cunningham says in the "Complete Broadcast Antenna Handbook":
"In an array of four towers or more, the resistive part of the driving-point impedance of one or more of the towers often has a negative value. This means that the tower obtains its energy through the mutual impedance between it and the other towers of the array. This is a confusing situation, but if it is carefully thought out, it will cause no serious problems. We know the following things concerning the negative tower:

1. The tower must carry a current of the proper magnitude and phase.
2. The direction of this current is 180-degrees out of phase with what it would be in a tower having a positive base resistance.
3. We need some method of controlling the magnitude and phase of the tower current.

The simplest, although not the most efficient way of handling the negative-resistance tower is to terminate it through a matching network to a resistor, as swhown in Fig.11-15. The energy that the negative tower actually gets from the other towers is thus dissipated in the resistor. The magnitude and phase of the current may be controlled by the parameters of the network. Naturally, this isn`t a very efficient arranngement, particularly if the negative tower handles a substantial amount of current.

The preferred way to handle a negative tower is to feed the energy back to the power divider, where it will be passed back into the feeder system again. In this way, all of the energy is radiated rather than some being dissipated in a resistor.

Figure 11-16 shows an arrangement for recovering power from a negative-resistance tower.----"

Since I can`t do diagrams, I suggest finding a copy of the book. It`s a good one.

Best regards, Richard Harrison, KB5WZI

4736. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:32:20 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4060ad34$1_5@corp.newsgroups.com>
Source record: 97708

Reg Edwards wrote:
> What's wrong with radiation from the feedline? It's just as useful as
> radiation from elsewhere.

Maybe for an Isotron, but not for a beam.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4737. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:34:05 UTC
From: Harold Burton <hwburton@cableone.net>
Message-ID: <1061b59o32nrrde@corp.supernews.com>
Source record: 97707
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40606301_7@corp.newsgroups.com...
> DarkMatter wrote:
> > First, tell me how one "burns TNT". It is a high explosive. I
> > think its "burn rate" would be pretty fast, and not manageable.
>
> If one arranged the TNT into a fuse, how fast would it burn?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Don't know about strings of TNT but I just checked on primacord
and it detonates along it's length at greater than 6000 feet per second.

HWB

4738. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:34:38 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86d673qmc1.fsf@duchess.twilley.org>
Source record: 97711

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Richard" == Richard Clark <kb7qhc@comcast.net> writes:

Richard> On Tue, 23 Mar 2004 00:29:43 -0800, Jack Twilley
Richard> <jmt+usenet@twilley.org> wrote:
>> Yes, but pursuing a match close to 1:1 and an impedance close to 50
>> ohms seems to be a reasonable pursuit, if I understand correctly.

Richard> Hi Jack,

Richard> This is an aspiration on par with monks seeking nirvana. The
Richard> two illustrate it is the path, not the destination that is
Richard> meaningful.

Richard> There is a very clear point to be made that unless you
Richard> elevate the dipole, any 50 Ohm characteristic you observe
Richard> will more ground loss than radiation resistance. This is
Richard> reasonable only in the sense of ease of tuning and the
Richard> reductio ad absurdum is bliss can be found in a dummy load.

Oh, I see your point here. What you're saying is that my dipole is so
far from the ideal that reaching 50 ohms won't mean anywhere near the
same thing that it does to the ideal case. That begs the question,
then -- if not 50 ohms, what is the best value for my particular
configuration?

Richard> Clipping the ends of the current structure do not lead to
Richard> increased benefit unless you shave your advantage in tenths
Richard> of a dB. To put that in perspective, unless you are a
Richard> teenager, you and your contacts couldn't possible hear any
Richard> change below 1dB variation. To force that perspective
Richard> further, propagation variation through one QSO easily varies
Richard> by that much or more (unless we are talking line of sight FM
Richard> with full quieting).

I've listened to QSOs where they've ebbed down to the noise floor and
flooded back several times over the course of a minute, so I
understand what you're saying.

Richard> 73's Richard Clark, KB7QHC

I am really interested in knowing what sort of target values would
represent an optimal configuration, if that's at all possible.

Jack.
- --

Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAYK1zGPFSfAB/ezgRArdhAKDfNKIpcmwQvZaJjulkOrwc4sGK+wCfVlap
TxvN060RLyzIZD4+YO6MXrc=
=Kg/a
-----END PGP SIGNATURE-----

4739. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:34:42 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <S328c.1398$HX2.912@nwrddc01.gnilink.net>
Source record: 97709

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:c3q43fmuv1@sparta.btinternet.com...
> This suggests that other folks are correct in asserting that
> > the mast, and the outside of the feedline are doing a lot of the
> > radiating.
> ============================
>
> What's wrong with radiation from the feedline? It's just as useful as
> radiation from elsewhere.
>
> If I have a nice yagi array aimed at the moon and thus a low system noise
temp, and the feedline is allowed to radiate, I would think that might have
a bit of an effect not only on the array's pattern but also ruin the system
noise temp. The return loss then is also a function of cable length, routing
etc. Hardly a predictable array.
I can think of other examples. Although I admit in the case of the Isotron,
cable radiation is probably an advantage.

Dale W4OP

4740. Re: Parallel balun problem with wire loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 21:36:05 UTC
From: loopfan <loopfan@loopy.null>
Message-ID: <9528c.53859$aT1.7495@newsread1.news.pas.earthlink.net>
Source record: 97712

Richard Clark wrote:

> A wire has an obvious radius (in cross section), and the charge is
> distributed equally over its surface. However, if you hammer this
> wire flat, the charge then seeks the edges (the smallest radius) and
> abandons the flat area, starving it of conduction (resistance climbs).

Wow, what a waste of material. Looks like flat strips will be put
waaaaay on the back-burner.

> The same phenomenon can be observed in variable capacitors that arc
> further from their separated edges than from between their more
> closely situated, meshed flat surfaces. Even with arcs between these

Good example - all the caps I've seen that arced had them mostly near
the edges. I always wondered why.

> It is a mistake think surface area alone as the geometry of a circular
> cross section is more important.

I gotta' agree now. Thanks for the insight.

73 WN6F

4741. double double (bi)quad - feed impedance?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 22:08:46 UTC
From: Jeppe <fiktiv@adresse.dk>
Message-ID: <6bd1605e87t7agj40ijqmcfo9ksn08rd7k@4ax.com>
Source record: 97713

An ordinary biquad antenna (two squares in the same plane) has a feed impedance of about 50 Ohm when placed about lambda/8 in front of a reflector.

But what is the corresponding feed impedance of a double biquad (four squares = "double double quad") like each stacked element in this one?:

http://www.vhfman.freeuk.com/radio/23cmantennas.html

Intuitively I would guess it is 100 Ohm. But I may certainly be wrong, how the individual squares interact is over my head. Anybody got a more authoritative guess?

Jeppe

4742. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 22:10:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tnc1601o3huu51qi7cnrlc0aketvaf1n8t@4ax.com>
Source record: 97714

On Tue, 23 Mar 2004 13:34:38 -0800, Jack Twilley
<jmt+usenet@twilley.org> wrote:
>Oh, I see your point here. What you're saying is that my dipole is so
>far from the ideal that reaching 50 ohms won't mean anywhere near the
>same thing that it does to the ideal case. That begs the question,
>then -- if not 50 ohms, what is the best value for my particular
>configuration?
>
>I am really interested in knowing what sort of target values would
>represent an optimal configuration, if that's at all possible.
>
>Jack.

Hi Jack,

For the height you are at, you are probably already at the optimal solution. If you could optimize further, at this height, it would barely eke out 1dB difference. Ground dominates your design.

This is a heresy with dipole aficionados, but building a ground screen will help toward the quickest, easiest 1dB return. You don't have to do anything but shallow bury copper for the length of dipole + 20% and maybe a quarter wavelength wide, beneath it. It need not attach to anything to be beneficial. A grid of wires, 1M on a side is a good first step.

You will undoubtedly note a tuning change, use a tuner to adjust (you need it anyway). Some may distract you pointing out that it simply sends more signal up. True, but as a screen, it removes loss, and allows more signal out toward the horizon too.

73's
Richard Clark, KB7QHC

4743. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 22:13:39 UTC
From: aa6lk <aa6lk@cwnet.NOSPAM.com>
Message-ID: <4060B693.16E8@cwnet.NOSPAM.com>
Source record: 97715

Richard Harrison wrote:
>....
> The preferred way to handle a negative tower is to feed the energy back
> to the power divider, where it will be passed back into the feeder
> system again. In this way, all of the energy is radiated rather than
> some being dissipated in a resistor.

This makes sense, but I wonder if this condition can be made to hold
true
over the bandwidth of the transmitted signal. Would this scheme result
in
a system that had such a high Q that it would quickly degrade the
further away from the carrier frequency you got (i.e. mismatch at the
sideband frequencies)?

regards
L

4744. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 22:38:31 UTC
From: don@manx.misty.com
Message-ID: <slrnc61f37.if1.don@manx.misty.com>
Source record: 97716
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In article <kdn060pnn9kei66vv8t0r7dasc43j90au3@4ax.com>, DarkMatter wrote:
>On Tue, 23 Mar 2004 09:50:00 -0600, Cecil Moore
><Cecil.A.Moore@ieee.ONEDOT.org> Gave us:
>
>>John Michael Williams wrote:
>>> I share this skepticism. Burning TNT probably would produce 10x more
>>> free energy than detonating it.
>>
>>When you detonate it, what happens to the 90% lost energy?
>>Fails to actually detonate?
>
> First, tell me how one "burns TNT". It is a high explosive. I
>think its "burn rate" would be pretty fast, and not manageable.
>
> That guy's empty skull cavity has a lot of free space in it.

I know that TNT does not detonate easily. It may burn rather fast like nitrocellulose or moderately like the stuff they make road flares with if you just ignite it.

Some other high explosives are also capable of burning at moderate rates. I have heard of C4 being somewhat usable as a fuel to heat food with, easy to get burning without detonating.

I remmber reading in an encyclopedia that nitroglycerin can burn with a quiet flame in a wick, but I would not try that one. They do mix a small amount of nitroglycerin with nitrocellulose in some "smokeless powders", and that others have just nitrocellulose.

Since TNT does not contain enough oxygen in its nitro groups for complete combustion, burning it will get you some more energy than is released by a detonation of it.

- Don Klipstein (don@misty.com)

4745. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 22:51:49 UTC
From: don@manx.misty.com
Message-ID: <slrnc61fs4.if1.don@manx.misty.com>
Source record: 97717
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In article <e1UC72EmVGYAFw6G@jmwa.demon.co.uk>, John Woodgate wrote:
>I read in sci.electronics.design that Don Klipstein <don@manx.misty.com>
>wrote (in <slrnc60jne.1ce.don@manx.misty.com>) about 'CB Radios,
>Cellphones and Gasoline Vapor Ignition', on Tue, 23 Mar 2004:
>> That one is up there, but let's check heat of formation...
>>
>>HF gas: 63.991 KCal/mole, 3.19955 KCal/gram
>>
>>MgO: 145.76 KCal/mole, 3.644 KCal/gram, but with no gaseous output.
>
>Do you have the figures for CsF?

No I don't. I expect it to be more per mole and less per gram than HF.

I do have a figure for RbF, 133.31 KCal/mole, 1.276 KCal/gram.

But another one that ranks high per gram is Al2O3.
That one gets 389..49 KCal per mole, 3.818 KCal per gram, and 2.45% more
if you get it to be corundum crystal rather than amorphous powder.

B2O3 gets 279.81 KCal per mole, 3.886 KCal per gram.

I think BeO is also up there, probably even more per gram, but I do not
have that figure. I suspect it is the champ in energy per gram of
reactants, and misremembered by one element in the same column since
MgO is not the champ after all.

>DON'T TRY THIS AT HOME.(;-)

- Don Klipstein (don@misty.com)

4746. Re: Propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 22:53:44 UTC
From: fazamy@aol.com
Message-ID: <51ebe59f.0403231453.d4079a@posting.google.com>
Source record: 97718

Dear Jerry,

Jerry,

In January I had a similar question about propagation, sunspots etc.
So I reread "Understanding Solar Indices" by Ian Poole, G3YWX in Sept.
'02 QST.

Then I found on ARRL's website, "The Sun, the Earth, the Ionosphere:
What the Numbers Mean ..." by Carl Luetzelschwab, K9LA
(http://www.remote.arrl.org/tis/info/k9la-prop.html).

Also on ARRL's website is K7RA's weekly solar updates.

Lastly, "SEC Geophysical Alert Description"
(http://www.sc.noaa.gov/Data/info/WWVdoc.html)

These sources just scratch the surface when it comes to explaining
propagation. However, reading these things through a couple of times
can get you a basic understanding about what this fascinating subject
is about.

73,
KB2AMY

4747. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 23:12:11 UTC
From: nico@puntnl.niks
Message-ID: <4060c323.17747098@news.planet.nl>
Source record: 97819
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"noname" <noaddr@invalid.microsoft.com> wrote:

>
>"Nico Coesel" <nico@puntnl.niks> wrote in message
>news:405e167b.32890183@news.planet.nl...
>>
>> I'm pretty sure that it won't work that simple. There are other
>> factors at play that make controlling things with a telephone a lot
>> harder to achieve than you think... For everyone's safety I'm not
>> going into the details.
>
>You could, only there are no details.
>
>piezoelectric one, since with a piezo the circuit would differ slightly. A
>reed relay could do the switching. Using an NPN, the circuit would look like
>this: Negative ground, connected with ringer's "-", to battery "-" and
>through a forward-biased shottky to the emitter. The transistor's base
>connected through a 2K2 resistor to battery "+". Base also connected to
>diode "+", while diode "-" is connected to ringer "+". Collector through
>relay coil to battery "+", a capacitor across the relay coil. That's it. The
>relay contacts can be used to switch on a lamp, connected to the same
>battery and placed so that the hearing-impaired person can easily see it.
>Note to hearing-impaired preople: this circuit may not always work, it
>depends on the type of ringer and on the volume setting. I did not test it
>with any ringers either, but I think many old-style ones should do.

Way too complicated and it still doesn't work reliably. I've used
electronic kitchen timers -which basically have the same circuitry- in
numerous devices (Eprom erasers, etching tanks, UV exposure units,
etc, etc) but this method is too unreliable for anything that needs a
100% predictive trigger.

--
Reply to nico@nctdevpuntnl (punt=.)
Bedrijven en winkels vindt U op www.adresboekje.nl

4748. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 23:18:51 UTC
From: Jan Panteltje <pNaonStpealmtje@yahoo.com>
Message-ID: <gbh160dq29kgrh2224v2ehf5fdu74njphh@4ax.com>
Source record: 97820
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Tue, 23 Mar 2004 16:08:06 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>It appears that burning is also a viable method of destroying TNT.
>http://www.humanitarian-demining.org/demining/neutral/remic.asp
>describes a method for destroying land mines "in situ" via burning.
>It's a neat trick - a small shaped charge of explosive creates a
>high-velocity gas jet which breaks open the (TNT-loaded) land mine,
>and also delivers a charge of a pyrogenic chemical which ignites and
>burns the TNT without detonating it.
Yep I have seen a documentary on TV where the cut open old WW2 bombs
(UK ones), and then simply burned the stuff in it.
That is how they get rid of the old bombs.
JP

4749. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 23:19:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1061hgtrbn9h029@corp.supernews.com>
Source record: 97821

Jack Twilley wrote:

> . . .
> Frequency Resistance Reactance Impedance
> 7.00 14 6 15.2
> 7.05 18 15 23.4
> 7.10 18 21 27.7
> 7.15 21 20 29.0
> 7.20 24 27 36.1
> 7.25 28 36 45.6
> 7.30 28 43 51.3
>
> . . .

> The impedance is well within a 2:1 match throughout the voice segment,
> and a 3:1 match across the entire band.

Assuming a 50 ohm system, the SWR for each of your impedances is shown in the SWR column below. You might want to review how SWR is calculated -- the ARRL Antenna Book is a good source.

Frequency Resistance Reactance Impedance SWR
7.00 14 6 15.2 3.63
7.05 18 15 23.4 3.06
7.10 18 21 27.7 3.33
7.15 21 20 29.0 2.83
7.20 24 27 36.1 2.82
7.25 28 36 45.6 2.93
7.30 28 43 51.3 3.37

Roy Lewallen, W7EL

4750. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 23:20:18 UTC
From: Jan Panteltje <pNaonStpealmtje@yahoo.com>
Message-ID: <9gh160p4m8jiaobef4k8m37d1ltp9dvser@4ax.com>
Source record: 97822
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.basics,sci.electronics.design

On Tue, 23 Mar 2004 19:43:01 GMT, "Ken Fowler" <ko6no@yahoo.com>
wrote:

>While the thread might be interesting to some readers, and granted that the original topic had
>something to do with arcing associated with antennas, the discussion of explosives is very off-topic
>for rec.radio.amateur.antenna.
Only because you do not use enough output power :-)

4751. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-23 23:56:01 UTC
From: Dirk Bruere at Neopax <dirk@neopax.com>
Message-ID: <c3qiqk$2a2rtd$1@ID-120108.news.uni-berlin.de>
Source record: 97823
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Don Klipstein" <don@manx.misty.com> wrote in message
news:slrnc61fs4.if1.don@manx.misty.com...
> In article <e1UC72EmVGYAFw6G@jmwa.demon.co.uk>, John Woodgate wrote:
> >I read in sci.electronics.design that Don Klipstein <don@manx.misty.com>
> >wrote (in <slrnc60jne.1ce.don@manx.misty.com>) about 'CB Radios,
> >Cellphones and Gasoline Vapor Ignition', on Tue, 23 Mar 2004:
> >> That one is up there, but let's check heat of formation...
> >>
> >>HF gas: 63.991 KCal/mole, 3.19955 KCal/gram
> >>
> >>MgO: 145.76 KCal/mole, 3.644 KCal/gram, but with no gaseous output.
> >
> >Do you have the figures for CsF?
>
> No I don't. I expect it to be more per mole and less per gram than HF.
>
> I do have a figure for RbF, 133.31 KCal/mole, 1.276 KCal/gram.
>
> But another one that ranks high per gram is Al2O3.
> That one gets 389..49 KCal per mole, 3.818 KCal per gram, and 2.45% more
> if you get it to be corundum crystal rather than amorphous powder.
>
> B2O3 gets 279.81 KCal per mole, 3.886 KCal per gram.
>
> I think BeO is also up there, probably even more per gram, but I do not
> have that figure. I suspect it is the champ in energy per gram of
> reactants, and misremembered by one element in the same column since
> MgO is not the champ after all.

I suspect the champ is something like a mix of liquid ozone with liquid
acetylene.
Try it and report back.

--
Dirk

The Consensus:-
The political party for the new millennium
http://www.theconsensus.org

4752. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 00:55:06 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <K%48c.70224$SR1.121534@attbi_s04>
Source record: 97824

Reg Edwards wrote:
> This suggests that other folks are correct in asserting that
>
>>the mast, and the outside of the feedline are doing a lot of the
>>radiating.
>
> ============================
>
> What's wrong with radiation from the feedline? It's just as useful as
> radiation from elsewhere.
>
>

If your interest is to spray your rf all over the place then a radiating feedline is really FB.

If you have a $1500 tower, a $600 rotator, a $800 beam, a $3000 amplifier all connected to a $3000 transceiver, then you really want to steer your RF in a controlled direction. Under these conditions a radiating feedline destroys the nature of the antenna pattern and you're not getting what you paid for.

4753. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 01:08:18 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <SamdnQyCFeTnQv3dRVn-gg@comcast.com>
Source record: 97825

"Jack Twilley" <jmt+usenet@twilley.org> wrote in message
news:86d673qmc1.fsf@duchess.twilley.org...
> -----BEGIN PGP SIGNED MESSAGE-----
> Hash: SHA1
>
> >>>>> "Richard" == Richard Clark <kb7qhc@comcast.net> writes:
>
> Richard> On Tue, 23 Mar 2004 00:29:43 -0800, Jack Twilley
> Richard> <jmt+usenet@twilley.org> wrote:
> >> Yes, but pursuing a match close to 1:1 and an impedance close to 50
> >> ohms seems to be a reasonable pursuit, if I understand correctly.
>
> Richard> Hi Jack,
>
> Richard> This is an aspiration on par with monks seeking nirvana. The
> Richard> two illustrate it is the path, not the destination that is
> Richard> meaningful.
>
> Richard> There is a very clear point to be made that unless you
> Richard> elevate the dipole, any 50 Ohm characteristic you observe
> Richard> will more ground loss than radiation resistance. This is
> Richard> reasonable only in the sense of ease of tuning and the
> Richard> reductio ad absurdum is bliss can be found in a dummy load.
>
> Oh, I see your point here. What you're saying is that my dipole is so
> far from the ideal that reaching 50 ohms won't mean anywhere near the
> same thing that it does to the ideal case. That begs the question,
> then -- if not 50 ohms, what is the best value for my particular
> configuration?
>
.....
.....
Jack,
You may have a misconception about impedance here. Making the antenna
resonant is not going to make it 50 Ohms. Extrapolating your numbers, it
looks like resonance would be at around 6.9 MHz, and give you an impedance
of something like 12 + j0. Might be a good match to a 1:4 (not 4:1) balun,
but you would have to see what happens on the other bands.

Tam/WB2TT

4754. Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 01:14:22 UTC
From: alhearn@earthlink.net
Message-ID: <361741e8.0403231714.4657e7c7@posting.google.com>
Source record: 97826

In my dipole/vertical modeling and analyzer measurements, as frequency is increased past quarter-wave resonance, I've noticed with interest that both reactance and resistance peak at different times, as they increase with frequency toward the half-wave point.

Resistance peaks at approximately the half-wave point as expected, but inductive reactance always peaks a little earlier (lower frequency). This is also indicated in the ARRL Antenna Book in Figures 3 through 5 on pages 2-3 and 2-4 (it's the bulging on the right side of each of the curves).

For a given antenna of particular length, adding inductive or capacitive reactance changes the magnitude of the reactance peak, but not the frequency at which it occurs.

Changing the thickness of the radiating elements changes (lowers) the frequency at which the reactance peak occurs, but it also changes (lowers) the frequency at which resistance peaks, and the difference in these two freqencies stays approximately the same.

Why does the reactance peak occur slightly earlier than half-wavelength? Can it be mathmatically predicted/explained? Any help would be appreciated.

Al, WA4GKQ

4755. FS. Nye Viking MBVA tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 01:24:16 UTC
From: k9sqg@aol.com
Message-ID: <20040323202416.29778.00000286@mb-m14.aol.com>
Source record: 97827

This is the legal limit ++ tuner that is no longer being made. It has the built-in antenna switch, auto-computing SWR meter, auto-power switching wattmeter, and built in balun. This is the preferred older variant with 1/4 inch silver contacts, not the silver plated slot head screws that can't take as much current. Have an excellent copy of the mail. No scratches, dents, dings, etc. Inside and electrically it is a 9.9 condition. Only cosmetic flaw is that some of the front panel lettering is "weak", but perfectly readable. Digital pic is available if you want me to email it. $450 and will split the shipping to continental US only.

73s,

Evan

4756. Re: Propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 01:28:39 UTC
From: bunnydawg <r.heenan@sympatico.ca>
Message-ID: <Wx58c.19479$re.1406763@news20.bellglobal.com>
Source record: 97828

I guess that wasn't for me but i peeked anyways. Thanks for the links.
Robert
VE3 something or other

"mefazamy" <fazamy@aol.com> wrote in message
news:51ebe59f.0403231453.d4079a@posting.google.com...
> Dear Jerry,
>
> Jerry,
>
> In January I had a similar question about propagation, sunspots etc.
> So I reread "Understanding Solar Indices" by Ian Poole, G3YWX in Sept.
> '02 QST.
>
> Then I found on ARRL's website, "The Sun, the Earth, the Ionosphere:
> What the Numbers Mean ..." by Carl Luetzelschwab, K9LA
> (http://www.remote.arrl.org/tis/info/k9la-prop.html).
>
> Also on ARRL's website is K7RA's weekly solar updates.
>
> Lastly, "SEC Geophysical Alert Description"
> (http://www.sc.noaa.gov/Data/info/WWVdoc.html)
>
> These sources just scratch the surface when it comes to explaining
> propagation. However, reading these things through a couple of times
> can get you a basic understanding about what this fascinating subject
> is about.
>
> 73,
> KB2AMY

4757. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 02:30:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4060f334$1_1@corp.newsgroups.com>
Source record: 97829

alhearn wrote:
> Why does the reactance peak occur slightly earlier than
> half-wavelength?

Since the monopole is purely resistive around 1/4WL and
around 1/2WL, i.e. the reactance is zero at those two
points, it is simply impossible for it to be be any
other way.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4758. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 03:37:28 UTC
From: acepilot <acepilot@bloomer.net>
Message-ID: <jj78c.502$KG2.1047@reggie.win.bright.net>
Source record: 97830

Not sure I understand. Why not use sections of different impedance coax to raise the effective antenna impedance of each antenna to 100 Ohms, then use different lengths of 50 Ohm coax from the "Tee" adapter to these matching sections. The delay difference will cause the pattern to be steered in some direction. I assume you will be using crossed dipoles. When the two 100 Ohm antennas are connected together through the Tee, it will result in a system impedance of 50 Ohms. As long as you use resonant dipoles, current and voltage will be in phase in its respective dipole, so the impedance will not change. You are only providing a phase difference between the two dipoles by changing the path length the signals travel from the transmitter to each antenna. It should work. We basically did this when I worked at the U.S. Navy ELF transmitter site.

Steve Nosko wrote:
> "...easy way ..."? To change the phase, yes.... To change the pattern,
> Probably not. The impedance changes with the phase relationship. Antennas
> feed power to each other. Try searching for "Phased arrays".
>

4759. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 04:33:08 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40610fd6_4@corp.newsgroups.com>
Source record: 97831

acepilot wrote:
> As long as
> you use resonant dipoles, current and voltage will be in phase in its
> respective dipole, so the impedance will not change.

This isn't always true. The feedpoint impedances of two resonant
dipoles when phased together are not usually resistive. For instance
using EZNEC:

A 33 ft. dipole at 66 ft. has a feedpoint impedance of 70+j0 ohms
on 7.298 MHz.

Two 33 ft. dipoles at 66 ft. spaced 33 ft. apart and fed 90 degrees
out of phase have the following feedpoint impedances on 7.298 MHz:

109+j34

29-j33

Please describe how you would achieve equal magnitude currents 90
degrees apart into those dipoles given those feedpoint impedances.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4760. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 04:41:42 UTC
From: richardharrison@webtv.net
Message-ID: <3181-40611186-622@storefull-3256.bay.webtv.net>
Source record: 97832

Al, WA4GKO wrote:
"Why does the reactance peak earlier than half-wavelength? Can it be mathematically prtedicted / explained?"

At resonance, phase shifts abruptly from leading to lagging or vice versa as resonance is crossed.

The resonant length depends on wave velocity along the antenna wire and is a function of how thin the wire is. Resonant length is also shortened by increased capacitive effect caused by the voltage pile up at the open-circuit wire end. There are formulas involving wire length to periphery ratio but these values have been already calculated and plotted on convenient charts.

My 19th edition of the ARRL Antenna Book has Fig 8 on page 2-5 which gives values from 94% to 98% of free-space wavelength for a range of 1/2-wavelength to conductor diameter ratios. Often the antenna is shortened to 95% for "end effects" to avoid formulas and charts and in most cases this is good enough.

Best regards, Richard Harrison, KB5WZI

4761. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 06:05:23 UTC
From: dplatt@radagast.org
Message-ID: <1062993j8rt3n95@corp.supernews.com>
Source record: 97833

>> What's wrong with radiation from the feedline? It's just as useful as
>> radiation from elsewhere.
>
>Maybe for an Isotron, but not for a beam.

Or in cases where radiation coming off of the feedline would be
inconvenient for other reasons - e.g. the feedline runs in close
proximity to other wiring (RFI and telephone interference, or signals
getting where they don't belong in a multi-repeater shared site), or
metal pipes or metal-loaded walls (e.g. stucco).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4762. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 06:17:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40612850$1_3@corp.newsgroups.com>
Source record: 97834

Cecil Moore wrote:
> acepilot wrote:
>
>> As long as you use resonant dipoles, current and voltage will be in
>> phase in its respective dipole, so the impedance will not change.
>
>
> This isn't always true. The feedpoint impedances of two resonant
> dipoles when phased together are not usually resistive. For instance
> using EZNEC:
>
> A 33 ft. dipole at 66 ft. has a feedpoint impedance of 70+j0 ohms
> on 7.298 MHz.
>
> Two 33 ft. dipoles at 66 ft. spaced 33 ft. apart and fed 90 degrees
> out of phase have the following feedpoint impedances on 7.298 MHz:
>
> 109+j34
>
> 29-j33
>
> Please describe how you would achieve equal magnitude currents 90
> degrees apart into those dipoles given those feedpoint impedances.

I just ran this matching problem through Roy's (W7EL) SIMPFEED BASIC
program downloadable from http://www.eznec.com

Using 300 ohm twinlead, the program said that one feedline should be
27 degrees and the other should be 168.5 degrees. For 7.298 MHz and
VF=0.9, that's lengths of 9.1 ft. and 56.78 ft. I plugged them into
EZNEC and it worked great - a phased dipole array with 10.5 dBi gain
in one direction. The above lengths ensure that equal currents flow
in both elements and gives a 50 ohm SWR of about 2:1 at the junction
of the two 300 ohm feedlines.

Incidentally, there were no solutions using 50 or 75 ohm coax.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4763. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 06:24:38 UTC
From: Jack Twilley <jmt+usenet@twilley.org>
Message-ID: <86ad26ahjt.fsf@duchess.twilley.org>
Source record: 97835

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>>>>> "Jack" == Jack Twilley <jmt+usenet@twilley.org> writes:

Jack> Over the next couple of days, I'll take some careful
Jack> measurements of the antenna, its supports, and the distance of
Jack> everything from the back of the house. The house was built in
Jack> the 1940s and was constructed with wood and concrete with a
Jack> stucco finish.

http://www.twilley.org/~jmt/antenna/dipole.html

The only thing I'm missing because I didn't think to measure it was
how long the individual dipole legs are. However, they started off as
the normal lengths for a full-length 40m dipole and inverted vees for
20m and 10m, as mentioned in the page. Tomorrow I'll go out and
measure the wires and update the text and the relevant drawing with
that information.

Tam, if you do model this antenna, I'd really appreciate it if you
shared the model with me as I've always wanted to learn more about
nec4 and friends but never really had the ability to get past the
punch-card mindset of the input files, and having my own antenna
modeled would probably do it.

Jack.
- --
Jack Twilley
jmt at twilley dot org
http colon slash slash www dot twilley dot org slash tilde jmt slash
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.4 (FreeBSD)

iD8DBQFAYSmrGPFSfAB/ezgRArsoAKDwJjajxoQ8flxBLEZvJX7k8WgXpgCgtMZl
o4pYEPDM06R9qsu00CQPo40=
=TUkE
-----END PGP SIGNATURE-----
```

4764. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 07:15:16 UTC
From: Toni <post_to_usenet@hotmail.com>
Message-ID: <e5d260lhvust1a982qjqi42ou0fp0i6g11@4ax.com>
Source record: 97836

En Tam/WB2TT va escriure en Tue, 23 Mar 2004 20:08:18 -0500:

>Jack,
>You may have a misconception about impedance here. Making the antenna
>resonant is not going to make it 50 Ohms. Extrapolating your numbers, it
>looks like resonance would be at around 6.9 MHz, and give you an impedance
>of something like 12 + j0. Might be a good match to a 1:4 (not 4:1) balun,
>but you would have to see what happens on the other bands.
>
>Tam/WB2TT

Just a silly thought: If he made it resonant and had, indeed, 12
ohms, couldn't he make it into a folded dipole giving 12x4=48
ohms and probably a better bandwidth? (Of course this is assuming
monoband operation)

EA3FYA - Toni

4765. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 07:51:05 UTC
From: Toni <ea3fya@hotmail.com>
Message-ID: <5af26012sjf5ko5dlfcpeqn6o1609lco8r@4ax.com>
Source record: 97837

En Toni va escriure en Wed, 24 Mar 2004 08:15:16 +0100:

>En Tam/WB2TT va escriure en Tue, 23 Mar 2004 20:08:18 -0500:
>
>>Jack,
>>You may have a misconception about impedance here. Making the antenna
>>resonant is not going to make it 50 Ohms. Extrapolating your numbers, it
>>looks like resonance would be at around 6.9 MHz, and give you an impedance
>>of something like 12 + j0. Might be a good match to a 1:4 (not 4:1) balun,
>>but you would have to see what happens on the other bands.
>>
>>Tam/WB2TT
>
>Just a silly thought: If he made it resonant and had, indeed, 12
>ohms, couldn't he make it into a folded dipole giving 12x4=48
>ohms and probably a better bandwidth? (Of course this is assuming
>monoband operation)
>
>EA3FYA - Toni

Oops,

Just read in a previous post he is using a fan dipole. Don't
think it is possible to use the folded dipole then.

EA3FYA - Toni

4766. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 08:59:11 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <z5c8c.1205$Wb4.898@nwrddc01.gnilink.net>
Source record: 97838

Alhearn

If it is "understanding" that you want, I'd suggest you plot the antenna's impedance on a Smith Chart. A plot of an antenna's impedance with varying frequency will describe a continuous curve. Beyond that, any additional comments would probably just make this post more confusing. I'd bet you can answer your own question after looking at a Smith Chart.
Note the chart identifies R+/-jX. So the reactance added in series will move an impedance along lines of constant R.
The path of the impedance plot resulting from shunt X can also be identified, but maybe thats for another time for discussion

Jerry

"alhearn" <alhearn@earthlink.net> wrote in message
news:361741e8.0403231714.4657e7c7@posting.google.com...
> In my dipole/vertical modeling and analyzer measurements, as frequency
> is increased past quarter-wave resonance, I've noticed with interest
> that both reactance and resistance peak at different times, as they
> increase with frequency toward the half-wave point.
>
> Resistance peaks at approximately the half-wave point as expected, but
> inductive reactance always peaks a little earlier (lower frequency).
> This is also indicated in the ARRL Antenna Book in Figures 3 through 5
> on pages 2-3 and 2-4 (it's the bulging on the right side of each of
> the curves).
>
> For a given antenna of particular length, adding inductive or
> capacitive reactance changes the magnitude of the reactance peak, but
> not the frequency at which it occurs.
>
> Changing the thickness of the radiating elements changes (lowers) the
> frequency at which the reactance peak occurs, but it also changes
> (lowers) the frequency at which resistance peaks, and the difference
> in these two freqencies stays approximately the same.
>
> Why does the reactance peak occur slightly earlier than
> half-wavelength? Can it be mathmatically predicted/explained? Any help
> would be appreciated.
>
> Al, WA4GKQ

4767. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 10:53:46 UTC
From: bill.sloman@ieee.org
Message-ID: <7c584d27.0403240253.4b8e85fa@posting.google.com>
Source record: 97839
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

jwill@AstraGate.net (John Michael Williams) wrote in message
news:<4032bf27.0403231258.1de26259@posting.google.com>...
> bill.sloman@ieee.org (Bill Sloman) wrote in message
news:<7c584d27.0403230411.35e35014@posting.google.com>...
> > jwill@AstraGate.net (John Michael Williams) wrote in message
news:<4032bf27.0403221901.3cdacc11@posting.google.com>...
> > ...
> >
> > > I share this skepticism. Burning TNT probably would produce 10x more
> > > free energy than detonating it.
> >
> > Trinitrotoluene is C7H5N3O6 and would burn to 7 CO2 molecules, 2.5 H2O
> > molecules and 1.5 N2 molecules - for which you'd need 10.5 extra
> > oxygen atoms, over and above the six oxygen atoms available in the
> > original TNT molecule.
> >
> > Being simple-minded about it, 16.5/6 is 2.75, not ten, and that
> > exaggerates the advantage, because burning carbon to carbon monoxide
> > release quite a lot more energy than burning carbon monoxide to carbon
> > dioxide, which is where you use up seven of your extra 10.5 oxygen
> > atoms.
>
> Right, letting the N_3O_6 drop out as nitrogen dioxide,
> 7*CO_2 + 2.5*H_2O is just 16.5. However, detonation
> might not even produce the nitrogen dioxide, and it
> might lose energy by producing NO instead of dioxide.
> So I'm not sure where the 6 comes from.

Detonating or burning TNT won't produce any significant amount of
nitrogen dioxide - the oxygen originally bonded to the nitrogen will
end up bonded to the hydrogen (as water) and the carbon (as carbon
monoxide). That is what the nitrate groups are there for.

> Also, the energy from C+O_2 would be much lower than that
> from the H_2+O, per O, I think, but I'm not sure how
> well defined the combustion process is, that is being
> assumed.

It is pretty well defined. The hydrogen-oxygen bond is stronger than
the carbon oxygen bond, so all the hydrogen is going to end up as
water, and the rest of the oxygen will be taken up as carbon dioxide.
The energy released by these reactions can be worked out pretty
exactly - the National Bureau of Standards publishes table of
"enthalpies" for loads of chemical compounds.

You have to fine-tune the published data to account for the temperature and physical states of the reactants before and after the reaction, but this is strictly detail work.

The procedures involved in making the calculations were covered in the thermodynamics course I did in second year chemistry back in 1961. As far as I know, all chemistry and physics graduates have to do such a course.

> I think, if detonation in air also entailed
> complete combustion, then detonation would
> produce the same energy as would direct combustion.

Detonation can't entail complete combustion - at least not for TNT, where the three nitro-groups don't provide enough oxygen - in the ratio 6 : 16.5 - for complete combustion, and atmospheric oxygen can't diffuse into the fire-ball anything like fast enough to make up the deficit.

As Don Klipstein has pointed out, nitroglycerin and PETN (penta erithytol nitrate IIRR) do contain enough nitro-groups to allow more or less complete combustion during detonation.

> You mentioned something earlier about atomic hydrogen: I
> am not sure about this, because combination to H_2 would
> just be creation of one covalent bond. Can you explain
> further?

It is "just" the creation of one covalent bond, from a situation where there was no covalent bond. Most chemical reactions involve exchanging one covalent bond for another - stronger - covalent bond.

The noble gases - helium, neon, argon, xenon, radon - are the only elements that don't form strong covalent bonds. You've got to heat most elements to astronomic temperatures before you see appreciable populations of single atoms.

> > The exact amounts of energy involved are all available in the open
> > literature - that is where I found them, some thirty years ago, and
> > I'm sure that they are still available now.

Bill Sloman, Nijmegen

4768. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 11:07:52 UTC
From: bill.sloman@ieee.org
Message-ID: <7c584d27.0403240307.6fabfe4@posting.google.com>
Source record: 97840
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Dirk Bruere at Neopax" <dirk@neopax.com> wrote in message
news:<c3qiqk$2a2rtd$1@ID-120108.news.uni-berlin.de>...
> "Don Klipstein" <don@manx.misty.com> wrote in message
> news:slrnc61fs4.if1.don@manx.misty.com...
> > In article <e1UC72EmVGYAFw6G@jmwa.demon.co.uk>, John Woodgate wrote:
> > >I read in sci.electronics.design that Don Klipstein <don@manx.misty.com>
> > >wrote (in <slrnc60jne.1ce.don@manx.misty.com>) about 'CB Radios,
> > >Cellphones and Gasoline Vapor Ignition', on Tue, 23 Mar 2004:
> > >> That one is up there, but let's check heat of formation...
> > >>
> > >>HF gas: 63.991 KCal/mole, 3.19955 KCal/gram
> > >>
> > >>MgO: 145.76 KCal/mole, 3.644 KCal/gram, but with no gaseous output.
> > >
> > >Do you have the figures for CsF?
> >
> > No I don't. I expect it to be more per mole and less per gram than HF.
> >
> > I do have a figure for RbF, 133.31 KCal/mole, 1.276 KCal/gram.
> >
> > But another one that ranks high per gram is Al2O3.
> > That one gets 389..49 KCal per mole, 3.818 KCal per gram, and 2.45% more
> > if you get it to be corundum crystal rather than amorphous powder.
> >
> > B2O3 gets 279.81 KCal per mole, 3.886 KCal per gram.
> >
> > I think BeO is also up there, probably even more per gram, but I do not
> > have that figure. I suspect it is the champ in energy per gram of
> > reactants, and misremembered by one element in the same column since
> > MgO is not the champ after all.
>
> I suspect the champ is something like a mix of liquid ozone with liquid
> acetylene.
> Try it and report back.

Not an experiment I'd recommend. Acetylene is thermally unstable, and
cylinders of compressed acetylene contain kieselguhr

http://www.nobel.se/nobel/alfred-nobel/industrial/krummel/kieselguhr.html

for exactly the same reason that nitroglycerine is only commercially
available adsorbed onto kieselguhr.

Ozone is is also thermally unstable, and I don't think that it is commercially available at all (with or without kieselguhr).

Mixing liquid acetylene and liquid ozone could produce a very loud report - a mixture of charcoal and liquid oxygen used to be used as a commercial explosive.

Pure hydrogen peroxide is another nasty liquid - the British, and more recently, the Russians have had cause to regret using it as a torpedo fuel.

Bill Sloman, Nijmegen

4769. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 11:58:47 UTC
From: acepilot <acepilot@bloomer.net>
Message-ID: <iFe8c.505$KG2.962@reggie.win.bright.net>
Source record: 97841

Oops, my bust I guess. Damn computer programs! ;) Well, I probably
should have stated that this should be "tried at your own risk". I
guess that my point was that it should be possible to steer a signal by
using crossed dipoles. We do it at ELF frequencies for submarine comms,
so it should work at any other frequency as well...just takes a little
dinkin' around...but hey, that's what autotuners are for ;)

Scott
N0EDV

Cecil Moore wrote:
> Cecil Moore wrote:
>
>> acepilot wrote:
>>
>>> As long as you use resonant dipoles, current and voltage will be in
>>> phase in its respective dipole, so the impedance will not change.
>>
>>
>>
>> This isn't always true. The feedpoint impedances of two resonant
>> dipoles when phased together are not usually resistive. For instance
>> using EZNEC:
>>
>> A 33 ft. dipole at 66 ft. has a feedpoint impedance of 70+j0 ohms
>> on 7.298 MHz.
>>
>> Two 33 ft. dipoles at 66 ft. spaced 33 ft. apart and fed 90 degrees
>> out of phase have the following feedpoint impedances on 7.298 MHz:
>>
>> 109+j34
>>
>> 29-j33
>>
>> Please describe how you would achieve equal magnitude currents 90
>> degrees apart into those dipoles given those feedpoint impedances.
>
>
> I just ran this matching problem through Roy's (W7EL) SIMPFEED BASIC
> program downloadable from http://www.eznec.com
>
> Using 300 ohm twinlead, the program said that one feedline should be
> 27 degrees and the other should be 168.5 degrees. For 7.298 MHz and
> VF=0.9, that's lengths of 9.1 ft. and 56.78 ft. I plugged them into
> EZNEC and it worked great - a phased dipole array with 10.5 dBi gain

> in one direction. The above lengths ensure that equal currents flow
> in both elements and gives a 50 ohm SWR of about 2:1 at the junction
> of the two 300 ohm feedlines.
>
> Incidentally, there were no solutions using 50 or 75 ohm coax.

4770. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 12:04:06 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <jkAd$HE2kXYAFwMe@jmwa.demon.co.uk>
Source record: 97843
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that Bill Sloman <bill.sloman@ieee.org>
wrote (in <7c584d27.0403240307.6fabfe4@posting.google.com>) about 'CB
Radios, Cellphones and Gasoline Vapor Ignition', on Wed, 24 Mar 2004:

>Not an experiment I'd recommend. Acetylene is thermally unstable, and
>cylinders of compressed acetylene contain kieselguhr
>
>http://www.nobel.se/nobel/alfred-nobel/industrial/krummel/kieselguhr.htm
>l
>
>for exactly the same reason that nitroglycerine is only commercially
>available adsorbed onto kieselguhr.
>
>Ozone is is also thermally unstable, and I don't think that it is
>commercially available at all (with or without kieselguhr).

There have always been macho physicists and chemists who wanted to push
the envelope of risky experiments; Moissan, for example, who made
diamonds (not very good ones) by quenching white-hot hollow iron ingots
with carbon inside. Who was it who first produced titanium metal from
the oxide with the aid of potassium vapour?

Ozone has certainly been liquefied: it is a very deep blue, almost
black. Acetylene can't be liquefied at atmospheric pressure: the solid
sublimes (turns to gas) at -84 C.
>
>Mixing liquid acetylene and liquid ozone could produce a very loud
>report -

Particularly as it would have to be done in a pressure vessel!

>a mixture of charcoal and liquid oxygen used to be used as a
>commercial explosive.
>
>Pure hydrogen peroxide is another nasty liquid - the British, and more
>recently, the Russians have had cause to regret using it as a torpedo
>fuel.

Was the British torpedo fuel *pure* H2O2? It would seem at first sight
unnecessary.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4771. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 12:04:09 UTC
From: acepilot <acepilot@bloomer.net>
Message-ID: <lKe8c.506$KG2.1237@reggie.win.bright.net>
Source record: 97842

And one sidenote...

Cecil, I think you were implying that the dipoles you modeled were parallel to each other, correct? Our ELF antennas were dipoles that were perpendicular to each other. In theory, there should be minimal interaction between them because of the nulls off of each end of the antennas, correct? Somebody else mentioned that the antennas, when driven, feed power into each other. Placing them at 90 degrees to each other should minimize interaction, would it not? More stuff to digest!

Anyhow, whoever wants to give it a try, have fun and let us know how well it works!!

Scott
N0EDV

acepilot wrote:

> Oops, my bust I guess. Damn computer programs! ;) Well, I probably
> should have stated that this should be "tried at your own risk". I
> guess that my point was that it should be possible to steer a signal by
> using crossed dipoles. We do it at ELF frequencies for submarine comms,
> so it should work at any other frequency as well...just takes a little
> dinkin' around...but hey, that's what autotuners are for ;)
>
> Scott
> N0EDV
>
>
>
> Cecil Moore wrote:
>
>> Cecil Moore wrote:
>>
>>> acepilot wrote:
>>>
>>>> As long as you use resonant dipoles, current and voltage will be in
>>>> phase in its respective dipole, so the impedance will not change.
>>>
>>>
>>>
>>>
>>> This isn't always true. The feedpoint impedances of two resonant
>>> dipoles when phased together are not usually resistive. For instance
>>> using EZNEC:
>>>

>>> A 33 ft. dipole at 66 ft. has a feedpoint impedance of 70+j0 ohms
>>> on 7.298 MHz.
>>>
>>> Two 33 ft. dipoles at 66 ft. spaced 33 ft. apart and fed 90 degrees
>>> out of phase have the following feedpoint impedances on 7.298 MHz:
>>>
>>> 109+j34
>>>
>>> 29-j33
>>>
>>> Please describe how you would achieve equal magnitude currents 90
>>> degrees apart into those dipoles given those feedpoint impedances.
>>
>>
>>
>> I just ran this matching problem through Roy's (W7EL) SIMPFEED BASIC
>> program downloadable from http://www.eznec.com
>>
>> Using 300 ohm twinlead, the program said that one feedline should be
>> 27 degrees and the other should be 168.5 degrees. For 7.298 MHz and
>> VF=0.9, that's lengths of 9.1 ft. and 56.78 ft. I plugged them into
>> EZNEC and it worked great - a phased dipole array with 10.5 dBi gain
>> in one direction. The above lengths ensure that equal currents flow
>> in both elements and gives a 50 ohm SWR of about 2:1 at the junction
>> of the two 300 ohm feedlines.
>>
>> Incidentally, there were no solutions using 50 or 75 ohm coax.
>
>

4772. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 14:59:46 UTC
From: Richard Henry <rphenry@home.com>
Message-ID: <Fnh8c.1267$Q45.417@fed1read02>
Source record: 97844
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Bill Sloman" <bill.sloman@ieee.org> wrote in message
news:7c584d27.0403240307.6fabfe4@posting.google.com...
>
> Mixing liquid acetylene and liquid ozone could produce a very loud
> report - a mixture of charcoal and liquid oxygen used to be used as a
> commercial explosive.

I remember the lox-barbecue page (which unfortunately seems to have been
taken down) warned against soaking the charcoal briquets in the liquid
oxygen.

"The people in charge have requested this web site be removed"

4773. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 15:13:50 UTC
From: richardharrison@webtv.net
Message-ID: <2583-4061A5AE-21@storefull-3257.bay.webtv.net>
Source record: 97846

Scott, N0EDV wrote:
"Anyhow, whoever wants to give it a try, have fun and let us know how it works!!"

I don`t have EZNEC but it seems to be very useful.

Crossed dipoles are often used as quasi omnidirectional antennas. Broadcasters call it a "turnstile".

If the two dipoles are fed in phase, a figure-eight pattern results. This is similar to the pattern of a single dipole but at 45-degrees to the crossed dipoles.

The usual practice is to excite the dipoles 90-degrees out-of-phase. This produces a nearly circular pattern in the plane of the turnstile.

One could get a choice of patterns with crossed dipoles by feeding them in-phase, out-of-phase, and in quadrature for an omni pattern. Then using the dipoles one at a time, two more diirectional patterns are available.

Best regards, Richard Harrison, KB5WZI

4774. Re: Hi-Gain 40M coils

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 15:21:08 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <EHh8c.10046$Kd3.3698@newssvr22.news.prodigy.com>
Source record: 97845

What kind of connections do they have on each end. Post a pix.
73
Hank WD5JFR
"Bob Wood" <bobw@zianet.com> wrote in message
news:105sekc8he7un8a@corp.supernews.com...
> I have somewhere along the line of many years of collecting stuff acquired
> two new Hy-Gain 40M antenna traps or coils assemblies that are marked as
> 40M-ASSY-877234. The devices are 44" long and approximately 1-1/2 inch in
> diameter. I have to assume they were intended for a 40M beam or rotatable
> dipole antenna. Does anyone have any information on these or suggestions
> for utilizing them in a 40M rotatable, single element antenna design. I
> hate to just keep them lying around but not sure what to do with them at
> this time.
>
> Bob Wood
> W5QCP
> Alamogordo, NM
>
>

4775. Re: More data on my antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 15:57:41 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <X4GdnSe0lvhxMvzd4p2dnA@comcast.com>
Source record: 97847

"Toni" <ea3fya@hotmail.com> wrote in message
news:5af26012sjf5ko5dlfcpeqn6o1609lco8r@4ax.com...
> En Toni va escriure en Wed, 24 Mar 2004 08:15:16 +0100:
>
> >En Tam/WB2TT va escriure en Tue, 23 Mar 2004 20:08:18 -0500:
> >
> >>Jack,
> >>You may have a misconception about impedance here. Making the antenna
> >>resonant is not going to make it 50 Ohms. Extrapolating your numbers, it
> >>looks like resonance would be at around 6.9 MHz, and give you an
impedance
> >>of something like 12 + j0. Might be a good match to a 1:4 (not 4:1)
balun,
> >>but you would have to see what happens on the other bands.
> >>
> >>Tam/WB2TT
> >
> >Just a silly thought: If he made it resonant and had, indeed, 12
> >ohms, couldn't he make it into a folded dipole giving 12x4=48
> >ohms and probably a better bandwidth? (Of course this is assuming
> >monoband operation)
> >
> >EA3FYA - Toni
>
> Oops,
>
> Just read in a previous post he is using a fan dipole. Don't
> think it is possible to use the folded dipole then.
>
> EA3FYA - Toni

Toni,
I think you are right. Seems like the 40m folded dipole should be a short
circuit at 20. For a single dipole though, what you say makes sense (to me).

Tam/WB2TT

4776. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 16:27:45 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4061b754_6@corp.newsgroups.com>
Source record: 97848

acepilot wrote:
> Cecil, I think you were implying that the dipoles you modeled were
> parallel to each other, correct? Our ELF antennas were dipoles that
> were perpendicular to each other. In theory, there should be minimal
> interaction between them because of the nulls off of each end of the
> antennas, correct? Somebody else mentioned that the antennas, when
> driven, feed power into each other. Placing them at 90 degrees to each
> other should minimize interaction, would it not?

Yep, that's true, and a turnstile is an example. But for a phased beam, one needs maximum interaction. The dipoles in my example are 1/4WL apart, parallel, and in the same horizontal plane.

Incidentally, one of the disadvantages of Roy's SIMPFEED program is that one needs to know the mutual coupling impedance between the elements. For a two-element system, with identical elements, there is a way to use EZNEC to calculate (estimate) the mutual coupling impedance, Rm +/- jXm.

For two identical (resonant) elements, the feedpoint impedances reported by EZNEC will be of the form, (Rs +/- Xm) +/- jRm, where Rs is the resonant resistance of a single element alone (second element open-circuited).

For instance, in my earlier example of two 33 ft dipoles, 33 ft apart at a height of 66 ft, fed 90 degrees apart - the feedpoint impedances are:

109+j34 and 29-j34

That makes Rm = 34 ohms and makes Rs (109+29)/2 = 69 ohms, which makes Xm = -j39 ohms. Those Rm and Xm values can then be plugged into Roy's SIMPFEED program to obtain the length of the feedlines.

Note that two phased 20m dipoles work just fine as a beam on 17m. All it takes is different phasing of the feedlines.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4777. Re: 2M horizontal polarized mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 16:41:42 UTC
From: richardharrison@webtv.net
Message-ID: <4071-4061BA46-17@storefull-3251.bay.webtv.net>
Source record: 97849

Scott, N0EDV wrote:
"Here it is---."

The 1/2-wave circumference halo at the top, is fed at points A-A and uses a typical gamma match.

The one-wavelength loop doesn`t use a gamma match. It is in effect a quad loop antenna. It really shouldn`t need much impedance adjustment to match 50 or 70 ohms. In free-space, a full-wave loop has a feedpoint impedance of near 45 ohms. That may not have satisfied the designers. I don`t know the impedance of the 0.2 wavelength stub shown as a connection at points A-A for the feedline. With the line spacing shown, it probably has an intermediate impedance between that of the loop and the intended feedline. No gamma match and shorting bar are involved.

The one-wavelength loop is not really omnidirectional. It has a 1-dB gain perpendicular to the plane of the loop in free-space.

Best Regards, Richard Harrison, KB5WZI

4778. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 17:44:13 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c3shgv$70q$1@newshost.mot.com>
Source record: 97852

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:28032-4060ABF4-582@storefull-3254.bay.webtv.net...
> Steve Nosko wrote:
> "Are the patterns in the handbook all equal power division?"
>
> The subscript says:
> "The two elements are assumed to be thin and self-resonant, with
> equal-amplitude current flowing at the feed-point."

I see in another post there is also talk of equal power vs equal
currents. This nicely skirts the issue of HOW do you get them to be equal.
I should keep my nose out of these complex discussions, but I think this
supports my original comment that in general, it is not "easy".

Also, Good description of the antenna problem, Richard. Good
refresh of memory. I wouldn't have been able to do it justice from memory.

> Since I can`t do diagrams, I suggest finding a copy of the book. It`s a
> good one. Best regards, Richard Harrison, KB5WZI

If I had a burning desire to get into this subject I would, but I don't.
Thanks,
--
Steve N, K,9;d, c. i My email has no u's.

4779. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 17:46:34 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c3shld$713$1@newshost.mot.com>
Source record: 97851

I would say yes. This certainly makes sense. The techniques mentioned are
used in fixed frequency broadcast. Any power or phase changes would affect
the pattern and any power matching - dividing network most certainly will
have frequency dependence.

"aa6lk" <aa6lk@cwnet.NOSPAM.com> wrote in message
news:4060B693.16E8@cwnet.NOSPAM.com...
> Richard Harrison wrote:
> >....
> > The preferred way to handle a negative tower is to feed the energy back
> > to the power divider, where it will be passed back into the feeder
> > system again. In this way, all of the energy is radiated rather than
> > some being dissipated in a resistor.
>
> This makes sense, but I wonder if this condition can be made to hold
> true
> over the bandwidth of the transmitted signal. Would this scheme result
> in
> a system that had such a high Q that it would quickly degrade the
> further away from the carrier frequency you got (i.e. mismatch at the
> sideband frequencies)?
>
> regards
> L

4780. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 17:50:38 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c3sht1$74u$1@newshost.mot.com>
Source record: 97850

Yikes! Double Yikes!! RE: the latest on this thread.

Agreement and a non adversarial discussion of the technology. Good example fellas. Keep up the good work.
--
Steve N, K,9;d, c. i My email has no u's.

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:4061b754_6@corp.newsgroups.com...
> acepilot wrote:
> > Cecil, I think you were implying that the dipoles you modeled were
> > parallel to each other, correct? Our ELF antennas were dipoles that
> > were perpendicular to each other. In theory, there should be minimal
> > interaction between them ....

> Yep, that's true, and a turnstile is an example. But for a phased beam,
> one needs maximum interaction. ...
! =-----

4781. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 18:20:58 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403241020.23508e94@posting.google.com>
Source record: 97853

I'd strongly recommend the antennas chapter of King, Mimno and Wing's
"Transmission Lines, Antennas and Waveguides" for help understanding
this question. It may not be fully satisfying to your curosity, but
it does cover the effect. I think I still have a pdf file of scans of
the relevant pages, though I'm not positive about that. The book has
been out of print, but may be available in/through your library.

Cheers,
Tom

alhearn@earthlink.net (alhearn) wrote in message
news:<361741e8.0403231714.4657e7c7@posting.google.com>...
> In my dipole/vertical modeling and analyzer measurements, as frequency
> is increased past quarter-wave resonance, I've noticed with interest
> that both reactance and resistance peak at different times, as they
> increase with frequency toward the half-wave point.
>
> Resistance peaks at approximately the half-wave point as expected, but
> inductive reactance always peaks a little earlier (lower frequency).
> This is also indicated in the ARRL Antenna Book in Figures 3 through 5
> on pages 2-3 and 2-4 (it's the bulging on the right side of each of
> the curves).
>
> For a given antenna of particular length, adding inductive or
> capacitive reactance changes the magnitude of the reactance peak, but
> not the frequency at which it occurs.
>
> Changing the thickness of the radiating elements changes (lowers) the
> frequency at which the reactance peak occurs, but it also changes
> (lowers) the frequency at which resistance peaks, and the difference
> in these two freqencies stays approximately the same.
>
> Why does the reactance peak occur slightly earlier than
> half-wavelength? Can it be mathmatically predicted/explained? Any help
> would be appreciated.
>
> Al, WA4GKQ

4782. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 18:21:40 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4061d206$1_5@corp.newsgroups.com>
Source record: 97855

Steve Nosko wrote:
> I see in another post there is also talk of equal power vs equal
> currents. This nicely skirts the issue of HOW do you get them to be equal.
> I should keep my nose out of these complex discussions, but I think this
> supports my original comment that in general, it is not "easy".

It's "EZ" if you use W7EL's SIMPFEED.ZIP stuff :-) downloadable from:
http://www.eznec.com I have modified one of his programs to take the
feedpoint impedances predicted by EZNEC as the inputs to Roy's feedline
phasing program. It's actually "EZ". :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4783. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 18:21:49 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-E231BF.09215524032004@netnews.worldnet.att.net>
Source record: 97854
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

In article <4032bf27.0403231322.65c4e5b1@posting.google.com>,
jwill@AstraGate.net (John Michael Williams) wrote:

> but what would happen is that the uncombusted atoms
> of the TNT would be just accelerated away by the shock
> of detonation.
>
> Eventually, they might be combusted, but not as part of
> the detonation. So, their combustion energy contribution
> isn't counted as part of the explosion.

The above is just plain NONSENSE. When TNT Detonates, it is the
detonation wave front that causes the cyclic ring of tolulene to
break and release the bonding energy of the molecule. The detonation
wave front is traveling faster than the the molecules can move on their
own, so they don't move, they just get slammed by the detonation wave.
There is a GIANT difference between combustion and detonation. TNT
does NOT combust when it decomposes in a detonation.

Bruce in alaska
--
add a <2> before @

4784. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 18:24:04 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4061d295$1_5@corp.newsgroups.com>
Source record: 97856

Steve Nosko wrote:
> Agreement and a non adversarial discussion of the technology. Good example
> fellas. Keep up the good work.

When both sides are technically correct, there can be no valid argument. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4785. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 20:31:14 UTC
From: alhearn@earthlink.net
Message-ID: <361741e8.0403241231.41126a6b@posting.google.com>
Source record: 97857

Cecil Moore wrote ..
> Since the monopole is purely resistive around 1/4WL and
> around 1/2WL, i.e. the reactance is zero at those two
> points, it is simply impossible for it to be be any
> other way.

That's very true, but between the 1/4WL and 1/2WL zero-reactance points, reactance increases with frequency, peaks, and then begins to decrease to cross zero again at the 1/2WL point. This peak is NOT half-way between 1/4WL and 1/2WL, but skewed heavily toward the 1/2WL point. My question is what determines where that peak occurs?

Can the reactance peak be somehow adjusted (frequency position, not magnitude) for tuning purposes? Magnitude is easily adjusted by simply adding inductive or capacitive reactance, which doesn't change the shape or peak position of the reactance curve, but simply moves the curve up or down to change the points at which it crosses zero (resonance frequency). Controlling the reactance peak position could do the same.

The answer may be simple and common knowledge, but I haven't found it.

Al

4786. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 21:29:28 UTC
From: "Stephen J. Rush" <steverush1@cox.net>
Message-ID: <pan.2004.03.24.21.29.26.86486@cox.net>
Source record: 97858
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 18 Mar 2004 08:18:55 -0800, Jan Panteltje wrote:

> Unil the terrorists get nukes, then there will be no Jerusalem.
> It is as predictable as a TTL timer, only one outcome possible.
> It is probably far to late for Israel to change that outcome.

Jerusalem is probably the only city in the region that _isn't_ a potential
nuke target. Too many sites sacred to both sides.

4787. Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 22:12:07 UTC
From: pgardella@yahoo.com
Message-ID: <57d04feb.0403241412.3aa754f7@posting.google.com>
Source record: 97859

I'm stumped on a problem I've been having with a Comet UHV-4 quad band antenna (10m/6m/2m/70cm). It's mounted to a Comet CP-5M mobile mount on my Saturn SL1. The problem I have is that I cannot get it to tune. I figure that it's an insufficient RF ground. I've tried running braid from a good ground location in the trunk to the mount (good metal to metal contact on the "car" end of the braid). Still nothing.

So I was wondering if there would be a way to tune the antenna off the car. I was thinking of creating a ground plane with several 1/4 wavelength wires on each of the bands, and then adjusting the antenna to bring it into tune. That way I would know if the ground braid I put into the car is working well enough.

Does this make sense? Or is it a wasted effort, and I should spend my time on improving the ground in the car? What would you do?

73,
Patrick N3EO

4788. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 22:37:23 UTC
From: Dave <noone@nowhere.com>
Message-ID: <RuWdnT6ooqEykP_dRVn-uQ@crocker.com>
Source record: 97861

all that tuning it off the car would prove is that it could be tuned... that is, that it was working electrically and the adjustments were possible. unless you were very lucky the tuning on the car would be different than any off car rig you set up. i don't know about the saturn's construction, but if its mostly plastic there may not be enough metal close to the antenna to work properly. most mobile antennas are designed to be attached to a reasonably large piece of sheet metal, having a thin braid or just frame pieces as the ground plane would likely make the tuning much different than it was designed for. if where it is mounted is plastic you may want to try running several radials connected to the mounting bracket and just taped inside the trunk lid or fender... of if you can do it stick a piece of aluminum flashing inside attached to the bracket... the more metal the better most likely.

"Patrick Gardella" <pgardella@yahoo.com> wrote in message
news:57d04feb.0403241412.3aa754f7@posting.google.com...
> I'm stumped on a problem I've been having with a Comet UHV-4 quad band
> antenna (10m/6m/2m/70cm). It's mounted to a Comet CP-5M mobile mount
> on my Saturn SL1. The problem I have is that I cannot get it to
> tune. I figure that it's an insufficient RF ground. I've tried
> running braid from a good ground location in the trunk to the mount
> (good metal to metal contact on the "car" end of the braid). Still
> nothing.
>
> So I was wondering if there would be a way to tune the antenna off the
> car. I was thinking of creating a ground plane with several 1/4
> wavelength wires on each of the bands, and then adjusting the antenna
> to bring it into tune. That way I would know if the ground braid I
> put into the car is working well enough.
>
> Does this make sense? Or is it a wasted effort, and I should spend my
> time on improving the ground in the car? What would you do?
>
> 73,
> Patrick N3EO

4789. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 22:40:00 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40620e93_1@corp.newsgroups.com>
Source record: 97862

alhearn wrote:
> My question is what determines where that peak occurs?

Mathematically, it will be where the SWR circle is tangent
to the reactance arc. The higher the SWR, the higher the
maximum possible reactance and the closer it is to the
anti-resonance point.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4790. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 22:43:15 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40620f54_1@corp.newsgroups.com>
Source record: 97863
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Terry Given wrote:
> Why do you feel it necessary to abuse everyone with whom you disagree?

For exactly the same reason the posts are anonymous?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4791. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-24 23:42:34 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <K1p8c.1594$w54.9895@attbi_s01>
Source record: 97864

I used to run mobile in a SL-1 using Hamsticks and the Hustler mobile
antennas.

Where and how did you mount the antenna?

I used a lip mount on the trunk hood [which is metal] and three
different ground straps from the trunk hood to various points on the frame.

Deacon Dave, W1MCE

Patrick Gardella wrote:

> I'm stumped on a problem I've been having with a Comet UHV-4 quad band
> antenna (10m/6m/2m/70cm). It's mounted to a Comet CP-5M mobile mount
> on my Saturn SL1. The problem I have is that I cannot get it to
> tune. I figure that it's an insufficient RF ground. I've tried
> running braid from a good ground location in the trunk to the mount
> (good metal to metal contact on the "car" end of the braid). Still
> nothing.
>
> So I was wondering if there would be a way to tune the antenna off the
> car. I was thinking of creating a ground plane with several 1/4
> wavelength wires on each of the bands, and then adjusting the antenna
> to bring it into tune. That way I would know if the ground braid I
> put into the car is working well enough.
>
> Does this make sense? Or is it a wasted effort, and I should spend my
> time on improving the ground in the car? What would you do?
>
> 73,
> Patrick N3EO

4792. Re: 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 01:51:31 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0403241751.cc92f96@posting.google.com>
Source record: 97865

"aunwin" <aunwin@insightbb.com> wrote in message news:<ln06c.30814 to the

COMPUTOR COMPARISONS

ROTATABLE LOOP/DIPOLE VERT LOOP/DIPOLE BEVERAGE

10 DEG -13 -5 -9

20 DEG -8 -3 -7

30 DEG -5 -3.3 -6.5

40 DEG -2.4 -4 -8

50 DEG -1.8 -6 -13

60 DEG -0.8 -8 -30

70 DEG -0.6 -11

80 DEG -0.0 -15

90 DEG -0.0

NOTE OUTSIDE CURVE = ZERO
0dB = 2.15dBi Frequency 1.9 MHz

All above perfect ground
Rotatable dipole @ 65 feet
Vert Dipole 2 feet above ground
Beverage 10 feet above ground
Note that Beverage has beam pattern with good f/b
Dipoles basically circular pattern and good for transmit and receive

ART UNWIN KB9MZ

4793. EZNEX Modeling Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 01:59:23 UTC
From: George <look@signature_to.reply>
Message-ID: <%1r8c.55503$aT1.28688@newsread1.news.pas.earthlink.net>
Source record: 97866

Has anyone here modeled physically shortened (i.e. - helix wound) VHF antenna elements using EZNEC? I'm looking for suggestions how to do this.

George
K6GW

4794. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 03:02:57 UTC
From: Larry Gagnon <lagagnon@fakeuniserve.com>
Message-ID: <1064iv11s4jhv38@corp.supernews.com>
Source record: 97867

On 24 Mar 2004 14:12:07 -0800, Patrick Gardella <pgardella@yahoo.com> wrote:
> I'm stumped on a problem I've been having with a Comet UHV-4 quad band
> antenna (10m/6m/2m/70cm). It's mounted to a Comet CP-5M mobile mount
> on my Saturn SL1. The problem I have is that I cannot get it to
> tune. I figure that it's an insufficient RF ground. I've tried
> running braid from a good ground location in the trunk to the mount
> (good metal to metal contact on the "car" end of the braid). Still
> nothing.

Those Saturn's are plastic panelled aren't they? There is 80% of your answer right there! If I were you I would try to run a thick braid directly to the car FRAME from your antenna ground point, as there is probably little real metal in that trunk. The frame would connect all large pieces of metal in your car to your antenna ground.

I would also do the same at the rig end, directly to the engine block and firewall panel.

> So I was wondering if there would be a way to tune the antenna off the
> car. I was thinking of creating a ground plane with several 1/4
> wavelength wires on each of the bands, and then adjusting the antenna
> to bring it into tune. That way I would know if the ground braid I
> put into the car is working well enough.

Tuning the antenna away from the car would only prove that the antenna is tuneable, in the very unlikely chance there is something wrong with it. That I doubt very much.

Patrick, I'm afraid that with that car, despite doing the above, that you might never get as good a ground or signal as someone with a metal panelled car. But then I have heard some good signals from mobile antennas mounted to fiberglass recreational vehicles, so you never know!

Good luck with your efforts.

Larry Gagnon VE7EA

****
to reply via email remove "fake"

4795. Beverage antenna for the american continent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 03:04:12 UTC
From: Kelly <nospam@dxtuners.com>
Message-ID: <M_r8c.87328$dP1.254028@newsc.telia.net>
Source record: 97868

Hello antenna news group.

I have made my first Beverage antenna and its 400 meters long.
Its absolutely outstanding so I just had to show the rest of the world what
a Beverage really can do.
I put my receiver with the Beverage up on the DX-Tuners network
(http://dxtuners.com) so anyone can try and tune it.

But I heard recently that the Beverage concept is copyrighted??? Is this
true? If so, what does that mean?

Best regards

Kelly Lindman

4796. Re: Beverage antenna for the american continent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 03:40:29 UTC
From: Harv Nelson <harv@wherever.net>
Message-ID: <406254AD.8010602@wherever.net>
Source record: 97719

Kelly wrote:

>
> But I heard recently that the Beverage concept is copyrighted??? Is this
> true? If so, what does that mean?
>

:-)

It means that Budwieser is gonna sue your ass if you use their cans to
build the thing!

:-)

Harv, AI9NL

4797. Re: Beverage antenna for the american continent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 03:43:45 UTC
From: Harv Nelson <harv@wherever.net>
Message-ID: <H6ydnXpfQ_AcyP_dRVn-ug@centurytel.net>
Source record: 97720

Kelly wrote:

> But I heard recently that the Beverage concept is copyrighted??? Is this
> true? If so, what does that mean?
>

:-)

It means that Budwieser is gonna sue your ass if you use their cans to
build the thing!

:-)

Harv, AI9NL

4798. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 06:06:14 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403242206.4964180a@posting.google.com>
Source record: 97721

NOTICE: After reading an "off-topic" complaint from one of the antenna guys, I started replying with rec.radio.amateur.antenna deleted from the Send To list.

This doesn't work if you bookmark this thread: Google recovers the bookmark by FIRST group in a list; thus, you don't see posts with the first group missing unless you search in one of the other groups.

Worse, even if you search and read under one of the other groups, if you bookmark there, you get the thread under antenna, with other postings in the thread missing.

Sorry, antenna guy, I tried, but I want to be sure this one gets seen.

Bruce in Alaska <bruceg@btpost.net> wrote in message news:<bruceg-E231BF.09215524032004@netnews.worldnet.att.net>...

>> In article <4032bf27.0403231322.65c4e5b1@posting.google.com>,
>> jwill@AstraGate.net (John Michael Williams) wrote:
>>
>
>>> > but what would happen is that the uncombusted atoms
>>> > of the TNT would be just accelerated away by the shock
>>> > of detonation.
>>> >
>>> > Eventually, they might be combusted, but not as part of
>>> > the detonation. So, their combustion energy contribution
>>> > isn't counted as part of the explosion.
>
>>
>> The above is just plain NONSENSE.

You are exaggerating.

>> When TNT Detonates, it is the
>> detonation wave front that causes the cyclic ring of tolulene to
>> break and release the bonding energy of the molecule. The detonation
>> wave front is traveling faster than the the molecules can move on their
>> own, so they don't move, they just get slammed by the detonation wave.

OK. Maybe here you are not exaggerating.

Detonation creates a SHOCK, not a "wave"; a wave is a cyclic vibration at or below the speed of sound (disregarding electromagnetic waves).

A detonation is an aerodynamic (or, if you prefer,
hydrodynamic) process, not a "wave", and it
exceeds the speed of sound. Typical shock speeds for a
solid high explosive are over 9 km/s, whereas the speed
of sound in the fastest solid (e. g., carbonate rock)
is below 7 km/s. In a typical solid high explosive, sound
speed would be under 3 km/s. In nitroglycerine, it would
be under 2 km/s.

Your criticism doesn't make sense to me: If there is a
SHOCK (I assume you are referring to bonding electrons?)
it will transfer momentum to atoms in its path, and each
in just one direction, depending on the location of the
first energy-yielding bond. Each atom will be accelerated
in one direction (ignoring subsequent collisions).

I agree the shock will progress
faster than the atoms, but the atoms will be accelerated.

What are these atoms? They are the atoms, or if you prefer,
small molecules, NOT combusted as well as others not detonated,
and some previously detonated. They will move in all directions
away from their original locations. The heat liberated by the
detonation reaction, if nothing else, will have accelerated
them to high speeds.

If you think about it, that's what I wrote above.

>> There is a GIANT difference between combustion and detonation. TNT
>> does NOT combust when it decomposes in a detonation.
>>
>> Bruce in alaska

I didn't say anything inconsistent with that, did I?

John
jwill@AstraGate.net
John Michael Williams

4799. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 06:25:34 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <kV6MT9AetnYAFwuu@jmwa.demon.co.uk>
Source record: 97722
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

I read in sci.electronics.design that maxfoo <maxfooHeadFromButt@punkass
.com> wrote (in <5uv360d4entn3kvk2mec1odjbsji38nusm@4ax.com>) about
'Cellphones and Bombs', on Wed, 24 Mar 2004:
>a dirty nuke wouldn't physically damage any sacred sites. just
>contaminate the area for thousands of years so no one could live there.

Sounds like a possible solution, maybe extended to all the disputed
territories. As long as they were evacuated before the event. If no-one
can live there, no-one can encroach on others' areas.

Not meant seriously.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4800. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 07:09:33 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403242309.fd7f4cf@posting.google.com>
Source record: 97723

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40620e93_1@corp.newsgroups.com>...
> alhearn wrote:
> > My question is what determines where that peak occurs?
>
> Mathematically, it will be where the SWR circle is tangent
> to the reactance arc.

That is not in general true; do you have reason to believe it's true
for the impedance of a dipole? Consider what happens when you change
the reference impedance for the SWR measurement.

> The higher the SWR, the higher the
> maximum possible reactance and the closer it is to the
> anti-resonance point.

What's the reactance at the anti-resonance point? Is highest SWR at
anti-resonance, or at maximum reactance, or at some point between?

4801. ladder line J-pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 07:28:15 UTC
From: Dustin <fordman@btc-bci.com>
Message-ID: <kSv8c.143$LQ4.99061@news.uswest.net>
Source record: 97724

Hello, I am going to be building a few J-poles out of 450 ohm 18 gauge ladder line, I was wanting to mount them into PVC pipe, but havnt seen any plans for doing this? does anyone know of a link to a site where this has been done or tell me how much they think this will change my SWR readings? Thank you very much.

Dustin
KC8ZEm

4802. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 07:29:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40628A5B.F308C559@cwis.net>
Source record: 97725

Patrick,
Sorry, tuning the antenna 'off of' the car won't work
(miracles
do happen, but don't count on it). The most likely problem is
as
you thought, a not so good 'ground', but maybe not. Does
anything
you do change the tuning of the antenna at all? Maybe not get
it
to where you want it (freq.), but does change it's resonant
freq?
If not, then there's something else 'going on' besides the
inadequate
grounding/counterpoise. Make sure you have a good connection
through
the mount, no shorts/opens except as they should be, etc. And
you
probably should do something about the grounding/counterpoise,
maybe
clip a wire to the base of the mount as a counterpoise to see
what
difference it makes (just lay it on the surface of the car for
now).
The length of the counterpoise isn't that critical, but too long
is
'better' than too short. Changing the location of the mount is
also
something you might try.
Good luck...
'Doc

4803. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 09:28:58 UTC
From: Ian Buckner <Ian_Buckner@agilent.com>
Message-ID: <1080206939.687245@cswreg.cos.agilent.com>
Source record: 97726
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"Richard Henry" <rphenry@home.com> wrote in message
news:Fnh8c.1267$Q45.417@fed1read02...
>
> I remember the lox-barbecue page (which unfortunately seems to have
been
> taken down) warned against soaking the charcoal briquets in the
liquid
> oxygen.
>
> "The people in charge have requested this web site be removed"
>
That's a shame - I thought it was a good example of there still being
a sense of adventure out there.

regards
Ian

;-)

4804. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 11:43:58 UTC
From: bill.sloman@ieee.org
Message-ID: <7c584d27.0403250343.38ee6299@posting.google.com>
Source record: 97728
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Bruce in Alaska <bruceg@btpost.net> wrote in message
news:<bruceg-E231BF.09215524032004@netnews.worldnet.att.net>...
> In article <4032bf27.0403231322.65c4e5b1@posting.google.com>,
> jwill@AstraGate.net (John Michael Williams) wrote:
>
> > but what would happen is that the uncombusted atoms
> > of the TNT would be just accelerated away by the shock
> > of detonation.
> >
> > Eventually, they might be combusted, but not as part of
> > the detonation. So, their combustion energy contribution
> > isn't counted as part of the explosion.
>
> The above is just plain NONSENSE.

Not true.

> When TNT Detonates, it is the
> detonation wave front that causes the cyclic ring of tolulene to
> break and release the bonding energy of the molecule.

It isn't the "detonation wave front" that disrupts the
tri-nitrotoluene molecule, but the local heating. The detonation wave
front is just another consequence of the local heating.

> The detonation
> wave front is traveling faster than the the molecules can move on their
> own, so they don't move, they just get slammed by the detonation wave.

They actually get heated by the heat radiated from the ignition point
(which travels at the speed of light), as well as by the impact of the
molecules heated up at the initial ignition point.

The detonation wave front is a "supersonic shock wave" which is to say
it is moving exactly as fast as molecules can move on their own,
because it consists of the energetic molecules produced by the
rearrangement of tri-nitrotoluene into water, carbon monoxide, carbon
and nitrogen.

> There is a GIANT difference between combustion and detonation. TNT
> does NOT combust when it decomposes in a detonation.

There certainly is a giant difference between combustion and
detonation. The carbon monoxide and the carbon particles produced by a
detonation may well react with atmospheric oxygen after the
detonation, but this is a much slower process and doesn't add much to

the damage produced by the initial blast.

Bill Sloman, Nijmegen

4805. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 11:48:50 UTC
From: acepilot <acepilot@bloomer.net>
Message-ID: <YBz8c.527$KG2.1321@reggie.win.bright.net>
Source record: 97727

I'll take that as a compliment! I never see a reason to get all bent
out of shape and start name calling anyway. Guess I'm a "Live and let
live" pacifist ;)

Scott
N0EDV

Steve Nosko wrote:
> Yikes! Double Yikes!! RE: the latest on this thread.
>
> Agreement and a non adversarial discussion of the technology. Good example
> fellas. Keep up the good work.

4806. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 11:58:36 UTC
From: acepilot <acepilot@bloomer.net>
Message-ID: <6Lz8c.528$KG2.1240@reggie.win.bright.net>
Source record: 97729

Again I say, thanks for the compliment! I am by no means an expert on this topic or antennas in general. I just love antennas! Plus, I was trying to recall, from my (shorter by the day) memory how our ELF antennas worked. I haven't worked there for just shy of 9 years...and I can't even remember what I had for dinner last night ;)

I've often thought of giving the crossed dipoles (I guess you call it a turnstile antenna) a try on 75M since a 2 element yagi or quad there might be a bit unwieldy :O Now if I could only remember the math formula to figure the direction of steering by knowing the phase difference between the feeds of each antenna. I do remember it was fairly simple and used sine, cosine, or tangent. Maybe I'll have to ask a buddy still working there if he can dig the info up in the books there. Actually, he worked for the company who built the site in the 1980's so he might even be able to pull it from memory. I don't think that information would be classified :)

Scott

Cecil Moore wrote:

> Steve Nosko wrote:
>
>> Agreement and a non adversarial discussion of the technology. Good
>> example
>> fellas. Keep up the good work.
>
>
> When both sides are technically correct, there can be no valid argument.
> :-)

4807. Re: Beverage antenna for the american continent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 13:07:12 UTC
From: ricknj10@hotmail.com
Message-ID: <4062d81e.103874031@news.optonline.net>
Source record: 97730

>But I heard recently that the Beverage concept is copyrighted??? Is this
>true? If so, what does that mean?

Kelly, Don't confuse copyrighting with a patent.
I am only a layman, so lawyers will tell me I am all wrong, but
basically I think all you are talking about is that something someone
wrote (such as a magazine article), if they indicate it is
copyrighted, means you cannot copy their material. It has nothing to
do with your rights to do anything you want with a Beverage antenna.
In fact, you can copyright your netnews postings if you want !! (see
below)

BTW - I also have a Beverage. Mine is 500 ft long in NJ, pointed
towards Europe and it does great. Many 80 and 160 m signals down in
the noise on a dipole are Q5 with the Bev. Also brings in AM
broadcast signals to the NE fantastic.

73,
Rick K2XT
(above article copyright 2004, all rights reserved !!!!)

4808. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 13:42:26 UTC
From: mark <markus@nospam.com>
Message-ID: <4062E1BE.729D5404@nospam.com>
Source record: 97731
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

good explanation bruce !

one of the reasons TNT became the product of choice over other
explosives such as nitro. Easy to transport and very stable

http://mooni.fccj.org/~ethall/explode/explode.htm

Trinitrotoluene is a high explosive that is
unaffected by ordinary shocks and
therefore must be set off by a detonator. TNT
is often mixed with other
explosives such as ammonium nitrate to form
amatol. Because it is insensitive to
shock and must be exploded with a detonator,
it is the most favored explosive
used in munitions and construction.
Why do nitro groups (NO2) lead to unstable
compounds?
Nitrogen has charge of +1 and nitro group have
a strong tendency to withdraw
(pull) electrons from other parts of the
compound. Attaching three nitro groups to
a compound leads to an extremely unstable
situation.

markus

Bruce in Alaska wrote:

> In article <4032bf27.0403231322.65c4e5b1@posting.google.com>,
> jwill@AstraGate.net (John Michael Williams) wrote:
>
> > but what would happen is that the uncombusted atoms
> > of the TNT would be just accelerated away by the shock
> > of detonation.
> >
> > Eventually, they might be combusted, but not as part of
> > the detonation. So, their combustion energy contribution
> > isn't counted as part of the explosion.
>
> The above is just plain NONSENSE. When TNT Detonates, it is the
> detonation wave front that causes the cyclic ring of tolulene to
> break and release the bonding energy of the molecule. The detonation
> wave front is traveling faster than the the molecules can move on their
> own, so they don't move, they just get slammed by the detonation wave.

> There is a GIANT difference between combustion and detonation. TNT
> does NOT combust when it decomposes in a detonation.
>
> Bruce in alaska
> --
> add a <2> before @

4809. coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 14:56:04 UTC
From: rlcqqqq@yahoo.com
Message-ID: <b24cac7c.0403250656.6e6793d9@posting.google.com>
Source record: 97732

Hello, I am looking to put up my first HF antenna. I have considered a trap dipople in the attic, but seeing this is a one story house and only 25 feet long it would only be about 15 feet off the ground and more trap than radiator. I have also considered a mass produced verticle to go on the existing tripod on the roof, but as I am currently on medical leave it is not in the budget. My plan is to run an approximately 80 foot wire from the existing tripod on top of the house length wise accross the backyard to either a pole erected at the fence line, or a tree on the other side of the fence line. My question would be, can I feed this wire from 50 ohm coax at the house end? What kind of matching network would be needed at the antenna? Would a matching network be needed at the antenna, or can I use an antenna tuner in the shack only? I am trying to avoid a center fed dipole, as I would require a center strain relief pole in the center of the back yard. This is a city lot, were the property is longer than it is wide. Also, would a counterpoise be needed, and can you explain to me what a counterpoise is, what it is made of, and it's purpose? Any suggestions appreciated. Any pointing to further info is appreciated.
Thanks,
Paul

4810. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 15:06:21 UTC
From: aRKay <noemail@foobar.com>
Message-ID: <noemail-BB1EE7.09062325032004@newssvr24-ext.news.prodigy.com>
Source record: 97733

I wonder if there is anything other than the $8.95 Radio Shack contact or tuner cleaner that can be used on the Control Unit 'Calibrate' control? How about WD-40 or sylicon spay dry it out with air?

By messing with it the meter sometimes displays the correct location of the beam. Per the previous responses I realize the problem is probably with calibration control located in the rotor - I am not ready to climb the tower and remove the rotor. That is big deal!

Dick - AA5VU

4811. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 15:39:45 UTC
From: Arnold <pigs@pink.floyd>
Message-ID: <53D8c.15264$qH5.887859@twister.southeast.rr.com>
Source record: 97734

On 25 Mar 2004 06:56:04 -0800, Paul stood up and said:
> Hello, I am looking to put up my first HF antenna. I have considered a
> trap dipople in the attic, but seeing this is a one story house and
> only 25 feet long it would only be about 15 feet off the ground and
> more trap than radiator. I have also considered a mass produced
> verticle to go on the existing tripod on the roof, but as I am
> currently on medical leave it is not in the budget. My plan is to run
> an approximately 80 foot wire from the existing tripod on top of the
> house length wise accross the backyard to either a pole erected at the
> fence line, or a tree on the other side of the fence line. My question
> would be, can I feed this wire from 50 ohm coax at the house end? What
> kind of matching network would be needed at the antenna? Would a
> matching network be needed at the antenna, or can I use an antenna
> tuner in the shack only? I am trying to avoid a center fed dipole, as
> I would require a center strain relief pole in the center of the back
> yard. This is a city lot, were the property is longer than it is wide.
> Also, would a counterpoise be needed, and can you explain to me what a
> counterpoise is, what it is made of, and it's purpose? Any suggestions
> appreciated. Any pointing to further info is appreciated.
> Thanks,
> Paul

Sounds like a job for a random wire antenna tuner. I've never used one
but I do know some people who have and with good success. As the name
suggests, you simply connect a length of wire to the tuner and tune it to
the band you want to transmit on. I suppose you could use the center
conductor of a coax as a feed to the wire. MFJ sells these tuners. You
could probably find one at a ham fest as well.

4812. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 16:14:02 UTC
From: richardharrison@webtv.net
Message-ID: <25448-4063054A-200@storefull-3254.bay.webtv.net>
Source record: 97735

Scott, N0EDV wrote:
"O Now if I could only remember the math formula to figure the direction of steering---."

All the simple options are bidirectional except the omni which results from 90-degree phasing between the two dipoles.

You know that used separately, maximum radiation is broadside to the energized dipole.

Fed in-phase or out-of-phase, the crossed dipoles have lobes at 45-degrees and 225-degrees, or at 135-degrees and 315-degrees. The figure-8 pattern is the same as from a single dipole but shifted plus or minus 45-degrees, depending on in-phase or out-of-phase feed of the two dipoles.

Patterns of the crossed dipoles are similar to the oscilloscope display of the same signal fed to both sets of defllection plates but with a variable or selected phase angle between the plates.

Just by selecting one dipole or the other you could have a north-south or east-west pattern.

By quadrature feed of the two dipoles you get a near circullar pattern from the crossed dipoles.

From two dipoles and a 90-degree delay for a non-directional pattern, and with some switching you get 5 radiation patterns. That`s pretty versatile.

To get the 90-degree phase shift, a T-network with equal reactances in all branches is often used. For a 90-degree lag, coils X1 and X2 are in series with the load. Capacitor X3 connects between junction of the coils and the other side of the line.

For a 90-degree lead, replace the coils with capacitors, and replace the capacitor with a coil in the T-network.

It`s easy to remember the reactance values.

X1=X2=X3=Zo= sq rt (ZinZL)

The reactances may well be 50-ohms if we have a match to the usual load impedance.

To adjust the phase lag of the T-network by as much as plus or minus 15-degrees without significantly affecting the magnitude of the shifter`s output, X1 and X2 are often ganged variable inductors.

An imperfection in the phase shifter may result from uncertainty about its input and output impedances. Nevertheless, many T-network phase shifters are in use.

Best regards, Richard Harrison, KB5WZI

4813. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 16:35:37 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4063094C.6D8E66F1@shaw.ca>
Source record: 97736

aRKay wrote:
>
> I wonder if there is anything other than the $8.95 Radio Shack contact
> or tuner cleaner that can be used on the Control Unit 'Calibrate'
> control? How about WD-40 or sylicon spay dry it out with air?

Silicon spray is not a cleaner and will do little if anything and could possibly do harm. It is not a moisture problem either so need to dry it out. WD-40 works well as a contact cleaner and will do the trick. Fooling around with it and occasionally seeing the correct beam position still points to the pot in the rotor unit -- it is dirty, but does make intermittent contact at which time you do see the correct position.

There are no shortcuts. If cleaning the calibration control pot does not fix the problem, then you have to climb the mast! Better now than winter -- it won't get any better just sitting up there.

You can always position a mirror outside which will give you a convenient view of the antenna position through a handy window. Don't laugh! That's what I did until I got the replacement part.

Irv
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4814. Re: ladder line J-pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 16:36:29 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <40630981.E33B51FB@shaw.ca>
Source record: 97737

Dustin wrote:
>
> Hello, I am going to be building a few J-poles out of 450 ohm 18 gauge
> ladder line, I was wanting to mount them into PVC pipe, but havnt seen any
> plans for doing this? does anyone know of a link to a site where this has
> been done or tell me how much they think this will change my SWR readings?
> Thank you very much.
>
> Dustin
> KC8ZEm

Didn't change my SWR at all, or at least it wasn't a noticeable amount.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/
Visit my very special website at http://members.shaw.ca/finkirv4/
Visit my CFSRS/CFIOG ONLINE OLDTIMERS website at http://members.shaw.ca/finkirv5/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4815. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 16:52:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40630eb3_4@corp.newsgroups.com>
Source record: 97738

Tom Bruhns wrote:
> Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>alhearn wrote:
>>>My question is what determines where that peak occurs?
>>
>>Mathematically, it will be where the SWR circle is tangent
>>to the reactance arc.

> That is not in general true; do you have reason to believe it's true
> for the impedance of a dipole?

When the dipole is at maximum feedpoint reactance, can the SWR be calculated? Of course. Will that point, when plotted on a Smith Chart lie on the SWR circle? Of course. Will it also lie on a reactance arc? of course. Will the SWR circle be tangent to that reactance arc? Of course. Will the un-normalized value of the maximum feedpoint reactance be constant? Of course, assuming nothing changes except Z0.

> Consider what happens when you change
> the reference impedance for the SWR measurement.

It doesn't matter. The Smith Chart reference changes and therefore the SWR changes but *the value of the antenna feedpoint impedance stays the same*. The new SWR circle is still tangent to the reactance arc at the same value of un-normalized reactance even though the normalized reactance value has changed. Xmax/Z01 is different from Xmax/Z02 but Xmax has not changed (assuming Z0 is the only change).

>>The higher the SWR, the higher the
>>maximum possible reactance and the closer it is to the
>>anti-resonance point.
>
> What's the reactance at the anti-resonance point?

Always zero, by definition. Examples: A full-wave center-fed dipole or a half-wave end-fed monopole. ("Anti-resonant" is what we called such antennas at Texas A&M 50 years ago.)

> Is highest SWR at
> anti-resonance, or at maximum reactance, or at some point between?

If the Z0 of your transmission line is equal to the feedpoint impedance at anti-resonance, the lowest SWR will occur at anti-resonance. If the Z0 of your transmission line is equal to the feedpoint impedance at maximum reactance, the lowest SWR will occur at maximum reactance. :-)

Depends upon the Z0 of the transmission line. If you choose a Z0 that
is the square root of the resonant impedance times the anti-resonant
impedance, the SWR at resonance and anti-resonance will be the same.
For a dipole that Z0 value is usually between 450 ohms and 600 ohms.
That's why anti-resonance is no problem for ladder-line/open-wire.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4816. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 17:00:52 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40631099_4@corp.newsgroups.com>
Source record: 97739

acepilot wrote:
> I've often thought of giving the crossed dipoles (I guess you call it a
> turnstile antenna) a try on 75M since a 2 element yagi or quad there
> might be a bit unwieldy :O Now if I could only remember the math
> formula to figure the direction of steering by knowing the phase
> difference between the feeds of each antenna.

A turnstile has a fixed 90 degree relationship between the two dipoles.
This makes it somewhat of an NVIS antenna good for satellite communications.
On 75m, a low dipole does approximately the same thing. If you are thinking
of changing the phasing away from 90 degrees, it would technically not be
defined as a "turnstile".
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4817. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 17:19:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3v4am$5l1$1@hercules.btinternet.com>
Source record: 97740

Cec, & Co.

Zo of an antenna wire seems to be an important parameter in your
discussions. Knowledge of its value would appear to be essential before
continuing with calculations. Otherwise nobody will get nowhere.

So how is the value of Zo obtained (without bringing Terman et al into it)?

Reg, G4FGQ

4818. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 17:36:46 UTC
From: richardharrison@webtv.net
Message-ID: <6392-406318AE-69@storefull-3256.bay.webtv.net>
Source record: 97741

Tom Bruhns wrote:
"What`s the reactance at the anti-resonance point? Is highest SWR at anti-resonance or at maximum reactance or at some point between?"

I don`t quite understand the questions but that`s no inhibition.

The anti-resonance point must be at the drivepoint of an end-fed 1/2-wave element because anti-resonance is the frequency at which the impedance of the system is very high.

If the system is anti-resonant, reactance is zero.

Highest SWR comes from greatest mismatch. It gets no worse that from an open or short circuit. The original question concerned 1/4-wave and 1/2-wave resonances.

SWR is highest at the reflection point because it is a creature of the reflected wave`s reaction with the incident wave, and nowhere can the reflected wave be stronger than at the tip of the antenna.

The open circuit at the tip has some capacitance, but the only effect of this reactance is to shift the standing wave pattern along the antenna according to transmission line analogy. Unlike a transmission line, the impedance seen by a wave traveling in either direction along an antenna varies from one end to the other.

As usual, I hope to learn something from this thread.

Best regards, Richard Harrison, KB5WZI

4819. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 18:19:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40632316_2@corp.newsgroups.com>
Source record: 97742

Paul wrote:
> My plan is to run
> an approximately 80 foot wire from the existing tripod on top of the
> house length wise accross the backyard to either a pole erected at the
> fence line, or a tree on the other side of the fence line. My question
> would be, can I feed this wire from 50 ohm coax at the house end? What
> kind of matching network would be needed at the antenna?

Is this a single band antenna?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4820. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 18:24:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4063244e$1_2@corp.newsgroups.com>
Source record: 97743

Reg Edwards wrote:

> Cec, & Co.
> Zo of an antenna wire seems to be an important parameter in your
> discussions.

Why do you say that? The only thing I have dealt with is
a constant feedpoint impedance at any one frequency.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4821. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 18:31:08 UTC
From: Terry Given <the_domes@xtra.co.nz>
Message-ID: <1Yn8c.15554$rw6.294006@news.xtra.co.nz>
Source record: 97860
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"DarkMatter" <DarkMatter@thebarattheendoftheuniverse.org> wrote in message
news:kdn060pnn9kei66vv8t0r7dasc43j90au3@4ax.com...
> On Tue, 23 Mar 2004 09:50:00 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> Gave us:
>
> >John Michael Williams wrote:
> >> I share this skepticism. Burning TNT probably would produce 10x more
> >> free energy than detonating it.
> >
> >When you detonate it, what happens to the 90% lost energy?
> >Fails to actually detonate?
>
> First, tell me how one "burns TNT". It is a high explosive. I
> think its "burn rate" would be pretty fast, and not manageable.
>
> That guy's empty skull cavity has a lot of free space in it.

Why do you feel it necessary to abuse everyone with whom you disagree?
especially as the half-dozen or so posts below clearly indicate that you are
WRONG.

4822. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 19:16:04 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c3vb97$6dc$1@newshost.mot.com>
Source record: 97744

"'Doc" <w5lz@cwis.net> wrote in message news:40628A5B.F308C559@cwis.net...
>
>
> Patrick,
> Sorry, tuning the antenna 'off of' the car won't work
> (miracles do happen, but don't count on it). The most likely problem is
> as you thought, a not so good 'ground', but maybe not. Does
> anything you do change the tuning of the antenna at all? Maybe not get
> it to where you want it (freq.), but does change it's resonant
> freq? If not, then there's something else 'going on' besides the
> inadequate
> grounding/counterpoise. Make sure you have a good connection
> through the mount, no shorts/opens except as they should be, etc. And
> you probably should do something about the grounding/counterpoise,
> maybe clip a wire to the base of the mount as a counterpoise to see
> what difference it makes (just lay it on the surface of the car for
> now). The length of the counterpoise isn't that critical, but too long
> is 'better' than too short. Changing the location of the mount is
> also something you might try.
> Good luck...
> 'Doc

4823. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 19:22:07 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c3vbki$6kd$1@newshost.mot.com>
Source record: 97745

Perhaps I should enter the text BEFORE hitting the send button, eh?

Doc has a good idea here with an "external" ground/counterpoise ae a
test.

However, I would ask: How are you determining when it is tuned? What
are you using to determine if it is tuned?

I don't think this talk about connecting braid to the FRAME is good.
The antennas are usually designed to have a ground-plane right at the base
of the antenna and a length of braid can be easily more than a quarter wave
at 2M and 440 and the frame is far from the antenna base. With plastic
paneled cars it is common to put some sort of foil or plate inside the body
to provide the ground plane.

--
Steve N, K,9;d, c. i My email has no u's.

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:c3vb97$6dc$1@newshost.mot.com...
>
> "'Doc" <w5lz@cwis.net> wrote in message news:40628A5B.F308C559@cwis.net...
> >
> >
> > Patrick,
> > Sorry, tuning the antenna 'off of' the car won't work
> > (miracles do happen, but don't count on it). The most likely problem is
> > as you thought, a not so good 'ground', but maybe not. Does
> > anything you do change the tuning of the antenna at all? Maybe not get
> > it to where you want it (freq.), but does change it's resonant
> > freq? If not, then there's something else 'going on' besides the
> > inadequate
> > grounding/counterpoise. Make sure you have a good connection
> > through the mount, no shorts/opens except as they should be, etc. And
> > you probably should do something about the grounding/counterpoise,
> > maybe clip a wire to the base of the mount as a counterpoise to see
> > what difference it makes (just lay it on the surface of the car for
> > now). The length of the counterpoise isn't that critical, but too long
> > is 'better' than too short. Changing the location of the mount is
> > also something you might try.
> > Good luck...
> > 'Doc
>
>

4824. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 19:37:02 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40633534_2@corp.newsgroups.com>
Source record: 97746

Reg Edwards wrote:
> Cec, & Co.
> Zo of an antenna wire seems to be an important parameter in your
> discussions.

Here's an example of what I have been talking about. The feedpoint impedance of my 130 ft. dipole (according to EZNEC) is:

60+j0 ohms at 3.63 MHz - resonance

2513+j2314 at 6.575 MHz - maximum reactance

5000+j0 at 7.118 MHz - anti-resonance

Assuming the antenna is fed with Z0 = 550 ohm open-wire line, the SWR ranges from 8.5:1 to 9.2:1 and the impedance at a current maximum point on the ladder-line ranges from 60 ohms to 65 ohms. The feedpoint impedances from 3.63 MHz (resonance) to 7.118 MHz (anti-resonance) describe an imperfect semi-circle on a Smith Chart normalized for 550 ohms.

If one plots the feedpoint impedances for all the different bands on a Smith Chart normalized for SQRT(Rresonant * Ranti-resonant), it will resemble an imperfect SWR circle (or imperfect spiral). By feeding my dipole only at the current-maximum points, I achieve a near-perfect match on all amateur HF bands without an antenna tuner.

At least for my multi-band dipole, it appears that the anti-resonant feedpoint impedance is about 100 times the resonant feedpoint impedance. The feedpoint impedance at the maximum reactance point is about 5000/2+j5000/2, i.e. the R is about half the anti-resonant resistance and the Xmax is about half the anti-resonant resistance times 'j'. These are my rules-of-thumb for my dipole.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4825. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 20:09:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c3ve90$c0s$1@sparta.btinternet.com>
Source record: 97747

You have two options.

(1) Locate an automatic remote-controlled tuner, outdoors, between the end of the antenna wire and the coax line to the shack.

(2) Bring the antenna wire right into the shack and use an ordinary manual tuner between the antenna wire and the rig.

You'll probably notice little difference between the two. And what difference there is will be due to the different lengths of a random antenna wire.

For a single-band antenna just connect a fixed L-match network between antenna and coax or between antenna and rig.

Whatever you do you will need a ground. A counterpoise is a sort of poor-man's artificial ground. It is a horizontal wire a few feet above ground level and has resonant properties. Just a single low radial. It is really a part of the antenna.

Reg, G4FGQ

4826. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 20:29:27 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <g7g660d285pld0k1p980tacoh9hnohku63@4ax.com>
Source record: 97748
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On Thu, 25 Mar 2004 09:28:58 -0000, "Ian Buckner"
<Ian_Buckner@agilent.com> wrote:

>"Richard Henry" <rphenry@home.com> wrote in message
>news:Fnh8c.1267$Q45.417@fed1read02...
>>
>> I remember the lox-barbecue page (which unfortunately seems to have
>been
>> taken down) warned against soaking the charcoal briquets in the
>liquid
>> oxygen.
>>
>> "The people in charge have requested this web site be removed"
>>
>That's a shame - I thought it was a good example of there still being
>a sense of adventure out there.
>
People concerned with being sued.

This rated highly on the "don't try this at home" scale.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

4827. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 20:52:41 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <406346eb$1_7@corp.newsgroups.com>
Source record: 97749

Reg Edwards wrote:
> Whatever you do you will need a ground. A counterpoise is a sort of
> poor-man's artificial ground. It is a horizontal wire a few feet above
> ground level and has resonant properties. Just a single low radial. It is
> really a part of the antenna.

Yep, a lossy part.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4828. Re: Beverage antenna for the american continent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 21:03:53 UTC
From: Kelly <nospam@dxtuners.com>
Message-ID: <ZOH8c.87390$dP1.254537@newsc.telia.net>
Source record: 97750

Ok Rich. Thanks for the answer. I must have ment the Beverage antenna
patent, which I read somewhere.
It sure is an awesome antenna. Yesterday Latin America was wide open but it
was only me that made a logging.
I have equipped my remotely controlled MW Tuner with a user log button so
that people can log what they hear for others to see.

In addition I have also messed with an array of EWE antennas on my farm,
also remotely controlled by users.
And even though I am not a skilled DXer, peope who use it say the EWE is
extreme and less noisy.
I have some picture of this array here
http://www.dxtuners.com/index.jsp?ib_page=29

73
Kelly, SM7NHC

"Rick " <ricknj10@hotmail.com> skrev i meddelandet
news:4062d81e.103874031@news.optonline.net...
>
> >But I heard recently that the Beverage concept is copyrighted??? Is this
> >true? If so, what does that mean?
>
> Kelly, Don't confuse copyrighting with a patent.
> I am only a layman, so lawyers will tell me I am all wrong, but
> basically I think all you are talking about is that something someone
> wrote (such as a magazine article), if they indicate it is
> copyrighted, means you cannot copy their material. It has nothing to
> do with your rights to do anything you want with a Beverage antenna.
> In fact, you can copyright your netnews postings if you want !! (see
> below)
>
> BTW - I also have a Beverage. Mine is 500 ft long in NJ, pointed
> towards Europe and it does great. Many 80 and 160 m signals down in
> the noise on a dipole are Q5 with the Bev. Also brings in AM
> broadcast signals to the NE fantastic.
>
> 73,
> Rick K2XT
> (above article copyright 2004, all rights reserved !!!!)
>

4829. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 21:06:34 UTC
From: Dave <noone@nowhere.com>
Message-ID: <SqudnZXEls141P7dRVn_iw@crocker.com>
Source record: 97751

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40633534_2@corp.newsgroups.com...
> 5000+j0 at 7.118 MHz - anti-resonance

making up terms again cecil?? I have never heard of 'anti-resonance' and
don't see it in my references here... i would say it is just resonant at the
second harmonic, just because the impedance is high doesn't mean it is
'anti' anything, or anything else special. it is just plain resonant at
7118.

4830. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 21:22:34 UTC
From: jgboyles@aol.com
Message-ID: <20040325162234.16845.00000107@mb-m28.aol.com>
Source record: 97752

>making up terms again cecil?? I have never heard of 'anti-resonance' and
>don't see it in my references here

I have heard the term used before. I typed anti resonance into Google and got
296,000 hits. I don't think the term was made up.
73 Gary N4AST

4831. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 22:15:22 UTC
From: pgardella@yahoo.com
Message-ID: <57d04feb.0403251415.36f49a6c@posting.google.com>
Source record: 97753

Thanks, Dave. The mount is on the trunk lip. I've got the
grounding strap running
from the mount set screws to the frame of the car.

So you basically ensured that the trunk lid had good contact with the
rest of the car?

73,
Patrick N3EO

Dave Shrader <david.shrader@comcast.net> wrote in message
news:<K1p8c.1594$w54.9895@attbi_s01>...
> I used to run mobile in a SL-1 using Hamsticks and the Hustler mobile
> antennas.
>
> Where and how did you mount the antenna?
>
> I used a lip mount on the trunk hood [which is metal] and three
> different ground straps from the trunk hood to various points on the frame.
>
> Deacon Dave, W1MCE
>
> Patrick Gardella wrote:
>
> > I'm stumped on a problem I've been having with a Comet UHV-4 quad band
> > antenna (10m/6m/2m/70cm). It's mounted to a Comet CP-5M mobile mount
> > on my Saturn SL1. The problem I have is that I cannot get it to
> > tune. I figure that it's an insufficient RF ground. I've tried
> > running braid from a good ground location in the trunk to the mount
> > (good metal to metal contact on the "car" end of the braid). Still
> > nothing.
> >
> > So I was wondering if there would be a way to tune the antenna off the
> > car. I was thinking of creating a ground plane with several 1/4
> > wavelength wires on each of the bands, and then adjusting the antenna
> > to bring it into tune. That way I would know if the ground braid I
> > put into the car is working well enough.
> >
> > Does this make sense? Or is it a wasted effort, and I should spend my
> > time on improving the ground in the car? What would you do?
> >
> > 73,
> > Patrick N3EO

4832. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 22:21:01 UTC
From: Dave <noone@nowhere.com>
Message-ID: <E-udnS4_0orHxv7dRVn-hg@crocker.com>
Source record: 97754

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040325162234.16845.00000107@mb-m28.aol.com...
> >making up terms again cecil?? I have never heard of 'anti-resonance' and
> >don't see it in my references here
>
> I have heard the term used before. I typed anti resonance into Google and
got
> 296,000 hits. I don't think the term was made up.
> 73 Gary N4AST

it would appear from a quick check that many of those 'anti-resonance'
references are mechanical (preventing resonance), quantum mechanical(some
kind of spin resonance), optical(something about lithography masks), or at
best electro-mechanical (lots of piezo-electric references in there), i did
see one that was explaining electrical resonance as mechanical analogies
that used that term. and, oh yes, there was another discussion group that
had latched onto it as an alternate term for a 'parallel resonant' circuit.

4833. Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 22:26:17 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <42n6609ja3gca5a7frk1o1uchpu80t8b3a@4ax.com>
Source record: 97755

Is there a simple way to test a mechanical attenuator, like the
HP-355D?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

4834. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 22:26:59 UTC
From: pgardella@yahoo.com
Message-ID: <57d04feb.0403251426.7a897168@posting.google.com>
Source record: 97756

Thanks, Doc.

I don't have an antenna analyzer, so I can't check the resonant
freq that way. I was relying on an SWR meter (my shack one).
Nothing at all changes when I adjust the antenna. SWR doesn't
move. I may try to borrow an analyzer from someone to check
that out.

The mount and cable are fine. Just got a new 2m/70cm dual
band antenna to use until I can get the UHV-4 working.
It has a nice SWR of around 1.3 on 2m.

On the UHV-4 antenna, I can't get below an SWR on 2m of
around 5 or 6, even though it's supposed to be ground
independant (1/2 wavelength). I can't adjust the 2m/70cm
at all anyway. It's fixed.

So as you said, there may be something else wrong with the
antenna itself. I may just ship it back to Comet to see what they
can find out. That high an SWR is just wrong on 2m.

But I may try the counterpoise initially, just to find out.

73,
Patrick N3EO

'Doc <w5lz@cwis.net> wrote in message news:<40628A5B.F308C559@cwis.net>...
> Patrick,
> Sorry, tuning the antenna 'off of' the car won't work
> (miracles do happen, but don't count on it). The most
> likely problem is as you thought, a not so good 'ground',
> but maybe not. Does anything you do change the
> tuning of the antenna at all? Maybe not get it
> to where you want it (freq.), but does change it's resonant
> freq?
> If not, then there's something else 'going on' besides the
> inadequate grounding/counterpoise. Make sure you have
> a good connection through the mount, no shorts/opens
> except as they should be, etc. And you probably should
> do something about the grounding/counterpoise, maybe
> clip a wire to the base of the mount as a counterpoise to see
> what difference it makes (just lay it on the surface of the
> car for now).
> The length of the counterpoise isn't that critical, but too long
> is 'better' than too short. Changing the location of the
> mount is also something you might try.

> Good luck...
> 'Doc

4835. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-25 23:00:16 UTC
From: The other John Smith <jocjo-john@yooha.com>
Message-ID: <4wJ8c.998$lt2.510@newsread1.news.pas.earthlink.net>
Source record: 97757

"Paul" <rlcqqqq@yahoo.com> wrote in message
news:b24cac7c.0403250656.6e6793d9@posting.google.com...
> Hello, I am looking to put up my first HF antenna. I have considered a
> trap dipople in the attic, but seeing this is a one story house and
> only 25 feet long it would only be about 15 feet off the ground and
> more trap than radiator. I have also considered a mass produced
> verticle to go on the existing tripod on the roof, but as I am
> currently on medical leave it is not in the budget. My plan is to run
> an approximately 80 foot wire from the existing tripod on top of the
> house length wise accross the backyard to either a pole erected at the
> fence line, or a tree on the other side of the fence line. My question
> would be, can I feed this wire from 50 ohm coax at the house end? What
> kind of matching network would be needed at the antenna? Would a
> matching network be needed at the antenna, or can I use an antenna
> tuner in the shack only? I am trying to avoid a center fed dipole, as
> I would require a center strain relief pole in the center of the back
> yard. This is a city lot, were the property is longer than it is wide.
> Also, would a counterpoise be needed, and can you explain to me what a
> counterpoise is, what it is made of, and it's purpose? Any suggestions
> appreciated. Any pointing to further info is appreciated.
> Thanks,
> Paul

Hi, Paul -

See The ARRL Handbook, 2002, 79th edition, page 20.17. There you will see "A Resonant Feed-Line Dipole." What is shown is a 1/4-wave wire end-fed by 50 Ohm coax. A quarter wavelength from the wire/coax connection is a several-turn coil made of the coax and then the coax continues toward the shack another 1/2 wavelength.

This may not be what you want since it is resonant, I guess, for a single band, but thot I would mention it.

John

4836. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 00:04:45 UTC
From: dplatt@radagast.org
Message-ID: <1066sst41190523@corp.supernews.com>
Source record: 97758

>I wonder if there is anything other than the $8.95 Radio Shack contact
>or tuner cleaner that can be used on the Control Unit 'Calibrate'
>control? How about WD-40 or sylicon spay dry it out with air?

I've heard that WD-40 tends to become gummy after some amount of time,
and can attract and hold dust and grit. Probably not what you want
for electrical contacts.

I often use Caig DeOxIt for this sort of cleaning / lubrication /
treatment process.

>By messing with it the meter sometimes displays the correct location of
>the beam. Per the previous responses I realize the problem is probably
>with calibration control located in the rotor - I am not ready to climb
>the tower and remove the rotor. That is big deal!

If the actual problem is a messed-up position pot / sensor in the
rotor, then it's likely that nothign you can do down at the control
box is going to make much difference. I'd guess that by operating the
"calibrate" switch at the box, you may be sending some small voltage
or current spikes up the wire to the sensor, and temporarily bridging
over the grid or dirt or oxidation or whatever else is fouling the
sensor. If this is the case, the only real remedy is to clean or
replace the fouled sensor.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4837. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 00:51:54 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40637efe_7@corp.newsgroups.com>
Source record: 97759

Dave wrote:

> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>5000+j0 at 7.118 MHz - anti-resonance
>
> making up terms again cecil?? I have never heard of 'anti-resonance' and
> don't see it in my references here... i would say it is just resonant at the
> second harmonic, just because the impedance is high doesn't mean it is
> 'anti' anything, or anything else special. it is just plain resonant at
> 7118.

There's lots of thing of which I am ignorant but I don't make postings
about those things. The first four books I picked up had information on
anti-resonance. Are you familiar with books? :-) A web search for
"anti-resonance" turned up 700 hits. Perhaps you don't need a book.

_Radio_Handbook_, 20th edition, by Bill Orr: "In radio circuits, parallel
resonance (MORE CORRECTLY TERMED ANTIRESONANCE) is more frequently
encountered than series resonance; ..." emphasis mine

_The_ARRL_Handbook_, 17th edition, page 14-5: "A capacitor connected across
a cavity provides an ANTI-RESONANT notch below the resonant frequency (f0),..."
emphasis mine

_Electronic_Fundamentals_and_Applications_, John D. Ryder, page 287 under
section 9-13. Parallel-Resonant Circuits: "The total admittance of the
parallel-resonant (SOMETIMES CALLED ANTIRESONANT) circuit is ..."
emphasis mine

_IEEE_Dictionary_: "antiresonant frequency - Usually in reference to a
crystal unit or the parallel combination of a capacitor and inductor."

Since the resonant feedpoint impedance of a 1/2WL dipole acts somewhat
like a series resonant circuit, at Texas A&M we called that the resonant
frequency. Since the resonant feedpoint impedance of a one-wavelength
dipole acts somewhat like a parallel resonant circuit, at Texas A&M we
called that the anti-resonant frequency. Differentiating between the resonant
frequency and anti-resonant frequency gives one additional information
about the impedance to be matched. "Resonant" = low, "Anti-resonant" = high.
It's a useful concept. You really should try it.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4838. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 00:58:49 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4063809d_7@corp.newsgroups.com>
Source record: 97760

Dave wrote:
> ... and, oh yes, there was another discussion group that
> had latched onto it as an alternate term for a 'parallel resonant' circuit.

According to the IEEE Dictionary, that's exactly what it is. And the
feedpoint of a one-wavelength center-fed dipole acts a lot like a
parallel resonant circuit. Somehow, saying that the resonant feedpoint
impedance of your dipole is 6000 ohms leaves something to be desired.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4839. Re: Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 01:02:41 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <RiL8c.94004$Cb.1232833@attbi_s51>
Source record: 97761

"Ken" <cprstn54zz@att.net> wrote in message
news:42n6609ja3gca5a7frk1o1uchpu80t8b3a@4ax.com...
> Is there a simple way to test a mechanical attenuator, like the
> HP-355D?
>
> Ken KC2JDY
>
The 355's are a piece of cake. You can do it with DC and a voltmeter.

W4ZCB

4840. Re: Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 02:42:19 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <bd5760do6pnue4ahqu38ltfhen556icps0@4ax.com>
Source record: 97762

On Fri, 26 Mar 2004 01:02:41 GMT, "Harold E. Johnson"
>The 355's are a piece of cake. You can do it with DC and a voltmeter.

Hmmm. I tried it with an ohmmeter and didn't get what I expected.
Resistance increased to around 100 ohms and stayed there from around
60 dB up.

So, if I put 5VDC across one center pin and ground, I should be
reading voltages to ground at the other pin that correspond to the dB
setting on the dial?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

4841. SURPLUS ANTENNA WIRE For Sale on eBay

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 03:43:40 UTC
From: rfpexec@yahoo.com
Message-ID: <676011a0.0403251943.22955014@posting.google.com>
Source record: 97763

Hi,

I have listed "10 lots" of Surplus 3/16 19-strand Antenna Wire on
eBay.com

Click on this link to see the pictures and listings:
http://search.ebay.com/search/search.dll?query=surplus+antenna+wire&ht=1&sosortproperty=1&
from=R10&BasicSearch=

If the link does not work for you, go to ebay.com and do a search for:
surplus antenna wire

Thanks,

Bill

4842. Re: Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 04:08:15 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4063aec8_2@news1.prserv.net>
Source record: 97764

Well, 5 volts is a little higher than I would apply to a precision attenuator (E squared /R = W) = 1/2 watt, which is a little tough on that input quarter watt resistor.

First, terminate the output in 50 ohms. Then the input will read 50 ohms at any setting. If it doesn't, you've got problems.

Otherwise, yes, 1 volt in, and calculate the output voltage (across 50 ohms!) for each dB step.

Personally, I use a network analyzer at the top rated frequency of the attenuator and let the cal lab keep it calibrated.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Ken" <cprstn54zz@att.net> wrote in message
news:bd5760do6pnue4ahqu38ltfhen556icps0@4ax.com...
> On Fri, 26 Mar 2004 01:02:41 GMT, "Harold E. Johnson"
> >The 355's are a piece of cake. You can do it with DC and a voltmeter.
>
>
> Hmmm. I tried it with an ohmmeter and didn't get what I expected.
> Resistance increased to around 100 ohms and stayed there from around
> 60 dB up.
>
> So, if I put 5VDC across one center pin and ground, I should be
> reading voltages to ground at the other pin that correspond to the dB
> setting on the dial?
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

4843. Flakey Ham IV Control Unit F-I-X-E-D !!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 04:44:04 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-B8EBE5.22440425032004@newssvr23-ext.news.prodigy.com>
Source record: 97765

First, I want to thank everyone that responded to my posting regarding the flakey meter that seemed to have a mind of it own with the needle dropping to the South (full right) side.

I pulled the cover tonight and put some tissue around to absorb the over spray. I then sprayed-the-hell out Calibration pot with Radio Shack contact cleaner and gave it a real work out with the power OFF. After it was dry, I turned on the power and the needle for the first time in two months showed the location of the beam. Yea! I no longer have to go outside with a flashlight to see where the beam is pointed.

The above is the good new and what I thought was the problem. When i replaced the cover and pushed on the top, the needle dropped back to South. Pulled the cover and the problem was the with the reflective tape I installed several months ago to help with a luminescence issue with the 28 volt lamp. (This was another long shaggy dog story about a 12 volt bulb burning a hole in the plastic meter case that had to be replaced). The fix was easy to just remove part of the reflective tape that was touching the lamp solder joint. Replaced the cover with a thin 1/4" strip of reflective tape on the edge by the lamp. Something tells me this may have been most of the problem.

The rotor and control unit are now working FB.

Dick - AA5VU

4844. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 05:35:29 UTC
From: Dave Cole <davidwcole@earthlink.net>
Message-ID: <BC891CF7.43E0%davidwcole@earthlink.net>
Source record: 97766
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

in article 40606301_7@corp.newsgroups.com, Cecil Moore at
Cecil.A.Moore@ieee.ONEDOT.org wrote on 3/23/04 10:15:

> DarkMatter wrote:
>> First, tell me how one "burns TNT". It is a high explosive. I
>> think its "burn rate" would be pretty fast, and not manageable.
>
> If one arranged the TNT into a fuse, how fast would it burn?

Depends on whether you ignite it (Zippo, etc.) -moderate speed for a fuse-
or detonate it (initiator, blasting cap, etc.) -very fast... think
primacord.
HTH
Dave Cole

4845. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 05:41:16 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <1oP8c.13216$_U.11124@lakeread05>
Source record: 97767

"Paul" <rlcqqqq@yahoo.com> wrote in message
news:b24cac7c.0403250656.6e6793d9@posting.google.com...
> Hello, I am looking to put up my first HF antenna. I have considered a
> trap dipople in the attic, but seeing this is a one story house and
> only 25 feet long it would only be about 15 feet off the ground and
> more trap than radiator. I have also considered a mass produced
> verticle to go on the existing tripod on the roof, but as I am
> currently on medical leave it is not in the budget. My plan is to run
> an approximately 80 foot wire from the existing tripod on top of the
> house length wise accross the backyard to either a pole erected at the
> fence line, or a tree on the other side of the fence line. My question
> would be, can I feed this wire from 50 ohm coax at the house end? What
> kind of matching network would be needed at the antenna? Would a
> matching network be needed at the antenna, or can I use an antenna
> tuner in the shack only? I am trying to avoid a center fed dipole, as
> I would require a center strain relief pole in the center of the back
> yard. This is a city lot, were the property is longer than it is wide.
> Also, would a counterpoise be needed, and can you explain to me what a
> counterpoise is, what it is made of, and it's purpose? Any suggestions
> appreciated. Any pointing to further info is appreciated.
> Thanks,
> Paul

Paul,

If the reason you are really "trying to avoid a center-fed dipole" is because you would need a strain relief pole in the middle, check your premises. They are incorrect. You do not need any such strain relief pole. A good high strength (5/16") dacron line with standing rigging at both ends will hold any 1kw rated Balun nearly horizontal between two points much farther than you have to reach. The line is the stain relief so the wire antennas feel only their own weight. The dacron carries weight of the Balun and the feedline hanging underneath it.

Tuning a randon wire will be a decent compromise unless a specific band or frequency is your target, where the dipole, although directional, would outperform it.

Jack
Virginia Beach

4846. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 05:47:43 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403252147.7061060a@posting.google.com>
Source record: 97768

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40630eb3_4@corp.newsgroups.com>...
> Tom Bruhns wrote:
> > Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >
> >>alhearn wrote:
> >>>My question is what determines where that peak occurs?
> >>
> >>Mathematically, it will be where the SWR circle is tangent
> >>to the reactance arc.
> >
> > That is not in general true; do you have reason to believe it's true
> > for the impedance of a dipole?
>
> When the dipole is at maximum feedpoint reactance, can the SWR be
> calculated? Of course. Will that point, when plotted on a Smith Chart
> lie on the SWR circle? Of course. Will it also lie on a reactance arc?
> of course. Will the SWR circle be tangent to that reactance arc?
> Of course.

I'm sorry, Cecil, but you lost me there. For any given SWR circle,
there are only two (complex conjugate) points at which reactance arcs
are tangent. Why would we think that the point of max reactance on
the antenna impedance curve will necessarily be at the point of
tangency? The antenna impedance arc of the simple dipole I modelled
indeed does not lie tangent to the max reactance arc at the same point
as the SWR circle that's tangent that reactance arc.

In any event, I don't see that this tells us anything about _why_ the
dipole shows max reactance at that particular frequency.

4847. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 11:58:15 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <rVU8c.11210$JO3.17937@attbi_s04>
Source record: 97619

Nope! Cecil's not making up terms.

You just missed a point in your education.

Dave wrote:

> "Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
> news:40633534_2@corp.newsgroups.com...
>
>>5000+j0 at 7.118 MHz - anti-resonance
>
>
> making up terms again cecil?? I have never heard of 'anti-resonance' and
> don't see it in my references here... i would say it is just resonant at the
> second harmonic, just because the impedance is high doesn't mean it is
> 'anti' anything, or anything else special. it is just plain resonant at
> 7118.
>
>

4848. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 12:06:16 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <Y0V8c.11689$w54.96546@attbi_s01>
Source record: 97620

Patrick Gardella wrote:

> Thanks, Dave. The mount is on the trunk lip. I've got the
> grounding strap running
> from the mount set screws to the frame of the car.

I ran three different ground strap, 1.5 inches wide, from the trunk lip/lid to the car frame. First, I burnished the finish off the lip right under the antenna mount. I added a strap from that point to the nearest point of metal connected to the frame at the wheel well.

Next I loosened the two trunks lip supports, hinges, and burnished the finish off under them. A strap was connected from one mount to the metal that houses the Saturn's speakers [rear deck]. The second strap was fastened to a burnished surface under the latch for the trunk mount.

All burnished surface/strap locations were weather sealed with "Coax Seal" from HRO.

Note: the radio, IC706 MKIIg, was bolted to the rear deck between the speakers and the remote head was installed at the drivers seat. The bolt locations were burnished to bare metal.

>
> So you basically ensured that the trunk lid had good contact with the
> rest of the car?
>
> 73,
> Patrick N3EO
>
>
> Dave Shrader <david.shrader@comcast.net> wrote in message
news:<K1p8c.1594$w54.9895@attbi_s01>...
>
>>I used to run mobile in a SL-1 using Hamsticks and the Hustler mobile
>>antennas.
>>
>>Where and how did you mount the antenna?
>>
>>I used a lip mount on the trunk hood [which is metal] and three
>>different ground straps from the trunk hood to various points on the frame.
>>
>>Deacon Dave, W1MCE
>>
>>Patrick Gardella wrote:
>>

>>
>>>I'm stumped on a problem I've been having with a Comet UHV-4 quad band
>>>antenna (10m/6m/2m/70cm). It's mounted to a Comet CP-5M mobile mount
>>>on my Saturn SL1. The problem I have is that I cannot get it to
>>>tune. I figure that it's an insufficient RF ground. I've tried
>>>running braid from a good ground location in the trunk to the mount
>>>(good metal to metal contact on the "car" end of the braid). Still
>>>nothing.
>>>
>>>So I was wondering if there would be a way to tune the antenna off the
>>>car. I was thinking of creating a ground plane with several 1/4
>>>wavelength wires on each of the bands, and then adjusting the antenna
>>>to bring it into tune. That way I would know if the ground braid I
>>>put into the car is working well enough.
>>>
>>>Does this make sense? Or is it a wasted effort, and I should spend my
>>>time on improving the ground in the car? What would you do?
>>>
>>>73,
>>>Patrick N3EO

4849. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 13:24:55 UTC
From: rlcqqqq@yahoo.com
Message-ID: <b24cac7c.0403260524.437a6194@posting.google.com>
Source record: 97621

"Jack Painter" <223bthp@cox.net> wrote in message
news:<1oP8c.13216$_U.11124@lakeread05>...
>
> Paul,
>
> If the reason you are really "trying to avoid a center-fed dipole" is
> because you would need a strain relief pole in the middle, check your
> premises. They are incorrect. You do not need any such strain relief pole. A
> good high strength (5/16") dacron line with standing rigging at both ends
> will hold any 1kw rated Balun nearly horizontal between two points much
> farther than you have to reach. The line is the stain relief so the wire
> antennas feel only their own weight. The dacron carries weight of the Balun
> and the feedline hanging underneath it.
>
> Tuning a randon wire will be a decent compromise unless a specific band or
> frequency is your target, where the dipole, although directional, would
> outperform it.
>
> Jack
> Virginia Beach
Hello, very ggod suggestion, I never thought of that. Now here is my
question to that. In using your idea of the dacron rope holding up the
antenna, can I run the coax parallel with the leg of the dipole along
the dacron rope that is closest to the house to the balun? Would that
give any ill effects? Or would the coax have to run along the ground
underneath the antenna and come up to the antenna and connect at the
balun at a 90 degree angle? I am trying to avoid lines or poles in the
middle of the backyard, little one is almost old enough to run around
backyard.
Thanks
Paul

4850. Re: Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 14:02:12 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <EJW8c.99032$_w.1300718@attbi_s53>
Source record: 97622

> Hmmm. I tried it with an ohmmeter and didn't get what I expected.
> Resistance increased to around 100 ohms and stayed there from around
> 60 dB up.
>
> So, if I put 5VDC across one center pin and ground, I should be
> reading voltages to ground at the other pin that correspond to the dB
> setting on the dial?

Sure. with 1 volt in, turn to 20 dB attenuation and the voltmeter should
read 0.1 volt.
Bear in mind, the resistors in there are rated 0.5 watt, so don't go
applying 100 volts!
Most often, a damaged step attenuator will have only the first step damaged.
It sacrifices itself and protects subsequent stages.

AHA! Also, don't forget to terminate the attenuator in 50 ohms. That may
have been where you were having trouble. Essentially, the "voltmeter" needs
to present 50 ohms to the pad or things will NOT be nice.

W4ZCB

4851. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 14:02:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <40643809.55613544@cwis.net>
Source record: 97623

Paul,
Another suggestion, end feed a center fed dipole. That
doesn't
make much sense, but thats because I don't know how to describe
it.
In effect, run the coax ~through~ one half of the dipole to the
center where the feed point is. One way is to double the braid
back
onto it's self. The folded back braid makes up half the dipole,
the
center conductor is the 'other' half. I'm sure there are better
descriptions and pictures somewhere, I'll see if I can find one.
'Doc

4852. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 14:12:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1068ej9k62v67ee@corp.supernews.com>
Source record: 97624

It's possible to get exact self and mutual impedances from EZNEC. I'll explain the method for two identical elements.

Excite the two elements with equal, in-phase currents. Record the feedpoint impedance of either element (they should be the same) as Z0 (= R0 + jX0). Then change the phase of one of the currents to 180 degrees, so the elements are fed exactly out of phase. Record the feedpoint impedances with this excitation as Z180 (= R180 + jX180).

The mutual impedance Zm = (Z0 - Z180) / 2

The self impedance can also be found as Zs = (Z0 + Z180) / 2

For example, use the Cardioid.EZ EZNEC example file. Change the phase of the second source to zero, click Src Dat, and note the element impedance Z0 = 56.11 - j14.22. Change the phase of the second source to 180, click Src Dat again, and note the impedance Z180 = 16.54 + j16.37. The mutual Z is then (56.11 - 16.54) - j(-14.22 - 16.37) = 19.8 - j15.3. The self Z is 36.3 + j1.1. These values can be used in SIMPFEED program Lewall1.

As it turns out, you can also calculate the exact self and mutual impedances from the feedpoint impedances of two elements fed 90 degrees out of phase. For identical elements fed with equal magnitude 90 degree phased currents, where Z1 is the feedpoint impedance of the leading element (that is, element 2 is fed at -90 degrees relative to element 1) and Z2 is the feedpoint impedance of the lagging element,

Rm = (X2 - X1) / 2
Xm = (R1 - R2) /2

and

Rs = (R1 + R2) / 2
Xs = (X1 + X2) / 2

Caution: Don't think that because the self impedance is the average of the two feedpoint impedances in the above two special cases, that it's always true. It isn't.

Going back to the Cardioid model as it comes with EZNEC, note that Z1 = 21.03 - j18.71 and Z2 = 51.61 + j20.86 when the elements are fed at 90 degrees. So

Rm = (20.86 - -18.71) / 2 = 19.8
Xm = (21.03 - 51.61) / 2 = -15.3
Rs = (21.03 + 51.61) / 2 = 36.3
Xs = (-18.71 + 20.86) / 2 = 1.1

exactly the values calculated before. Note that the values of mutual impedance are very close to the values from the graph in Chapter 8 of the ARRL Antenna Book.

The equations for these special cases are derived from the more general equations which can be found in Chapter 8 of the ARRL Antenna Book, and numerous other references. In the 20th Edition of the Antenna Book, they're Eq 20 and 21 on p. 8-19. Equations can easily be derived for two dissimilar elements from feedpoint impedances with in-phase and out-of-phase excitation with equal currents. And although it's possible to derive equations for self and mutual Z from the feedpoint impedances of more complex arrays, it requires more "measurements" in order to have enough equations for the increased number of unknowns.

Roy Lewallen, W7EL

Cecil Moore wrote:
> acepilot wrote:
>
>> Cecil, I think you were implying that the dipoles you modeled were
>> parallel to each other, correct? Our ELF antennas were dipoles that
>> were perpendicular to each other. In theory, there should be minimal
>> interaction between them because of the nulls off of each end of the
>> antennas, correct? Somebody else mentioned that the antennas, when
>> driven, feed power into each other. Placing them at 90 degrees to
>> each other should minimize interaction, would it not?
>
>
> Yep, that's true, and a turnstile is an example. But for a phased beam,
> one needs maximum interaction. The dipoles in my example are 1/4WL
> apart, parallel, and in the same horizontal plane.
>
> Incidentally, one of the disadvantages of Roy's SIMPFEED program is
> that one needs to know the mutual coupling impedance between the
> elements. For a two-element system, with identical elements, there
> is a way to use EZNEC to calculate (estimate) the mutual coupling
> impedance, Rm +/- jXm.
>
> For two identical (resonant) elements, the feedpoint impedances reported
> by EZNEC will be of the form, (Rs +/- Xm) +/- jRm, where Rs is the
> resonant resistance of a single element alone (second element
> open-circuited).
>
> For instance, in my earlier example of two 33 ft dipoles, 33 ft apart
> at a height of 66 ft, fed 90 degrees apart - the feedpoint impedances
> are:
>
> 109+j34 and 29-j34
>
> That makes Rm = 34 ohms and makes Rs (109+29)/2 = 69 ohms, which
> makes Xm = -j39 ohms. Those Rm and Xm values can then be plugged
> into Roy's SIMPFEED program to obtain the length of the feedlines.

>
> Note that two phased 20m dipoles work just fine as a beam on 17m.
> All it takes is different phasing of the feedlines.

4853. Re: SURPLUS ANTENNA WIRE For Sale on eBay

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 14:13:02 UTC
From: hurstjsj@verizon.net
Message-ID: <ba105bd.0403260613.63d0c49e@posting.google.com>
Source record: 97625

You don't really believe what you're advertising do you Bill?
Ebay quote:
"The antenna wire that is sold at most radio stores is thin #14 gauge
4-strand wire which has very little surface area.
What you are bidding on here is 3/16 inch (about #4 gauge) 19-strand
copper wire. The difference is in the surface area (skin effect) of
the wire. The more surface area you have the more gain and the broader
banded your antenna will be. This heavy duty wire has about 9 square
inches of surface area per linear foot.
If you are planning to build a dipole, windom, Swiss vertical, or any
type of wire antenna, this is the wire you want to use. It will give
you a superior signal because of the vastly increased surface area
(skin effect). "

John, KU6X

rfpexec@yahoo.com (Bill Hansen) wrote in message
news:<676011a0.0403251943.22955014@posting.google.com>...
> Hi,
>
> I have listed "10 lots" of Surplus 3/16 19-strand Antenna Wire on
> eBay.com
>
> Click on this link to see the pictures and listings:
> http://search.ebay.com/search/search.dll?query=surplus+antenna+wire&ht=1&sosortproperty=
1&from=R10&BasicSearch=
>
> If the link does not work for you, go to ebay.com and do a search for:
> surplus antenna wire
>
> Thanks,
>
> Bill

4854. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 14:40:20 UTC
From: pgardella@yahoo.com
Message-ID: <57d04feb.0403260640.5a9a6528@posting.google.com>
Source record: 97626

I am trying to get an SWR that will actually read on my SWR meter. :) Right
now it's off the scale on 10m and 6m. It's around 5 or 6 on 2m. I don't have
a meter for 70cm.

FWIW this antenna is a quad band: 10m/6m/2m/70cm . My dual band (2m/70cm)
works just fine.

Patrick

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:<c3vbki$6kd$1@newshost.mot.com>...
> Perhaps I should enter the text BEFORE hitting the send button, eh?
>
> Doc has a good idea here with an "external" ground/counterpoise ae a
> test.
>
> However, I would ask: How are you determining when it is tuned? What
> are you using to determine if it is tuned?
>
> I don't think this talk about connecting braid to the FRAME is good.
> The antennas are usually designed to have a ground-plane right at the base
> of the antenna and a length of braid can be easily more than a quarter wave
> at 2M and 440 and the frame is far from the antenna base. With plastic
> paneled cars it is common to put some sort of foil or plate inside the body
> to provide the ground plane.
>
> --
> Steve N, K,9;d, c. i My email has no u's.
>
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:c3vb97$6dc$1@newshost.mot.com...
> >
> > "'Doc" <w5lz@cwis.net> wrote in message news:40628A5B.F308C559@cwis.net...
> > >
> > >
> > > Patrick,
> > > Sorry, tuning the antenna 'off of' the car won't work
> > > (miracles do happen, but don't count on it). The most likely problem is
> > > as you thought, a not so good 'ground', but maybe not. Does
> > > anything you do change the tuning of the antenna at all? Maybe not get
> > > it to where you want it (freq.), but does change it's resonant
> > > freq? If not, then there's something else 'going on' besides the
> > > inadequate
> > > grounding/counterpoise. Make sure you have a good connection
> > > through the mount, no shorts/opens except as they should be, etc. And

> > > you probably should do something about the grounding/counterpoise,
> > > maybe clip a wire to the base of the mount as a counterpoise to see
> > > what difference it makes (just lay it on the surface of the car for
> > > now). The length of the counterpoise isn't that critical, but too long
> > > is 'better' than too short. Changing the location of the mount is
> > > also something you might try.
> > > Good luck...
> > > 'Doc
> >
> >

4855. Re: SURPLUS ANTENNA WIRE For Sale on eBay

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 15:10:10 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20040326101010.03590.00000163@mb-m01.aol.com>
Source record: 97627

Looks like Billy fell off the CB tree.

4856. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 15:53:08 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40645239_5@corp.newsgroups.com>
Source record: 97628

Tom Bruhns wrote:
> I'm sorry, Cecil, but you lost me there. For any given SWR circle,
> there are only two (complex conjugate) points at which reactance arcs
> are tangent. Why would we think that the point of max reactance on
> the antenna impedance curve will necessarily be at the point of
> tangency?

Note: I am talking about the frequencies between the 1/2WL resonant point and the one-wavelength (anti)resonant point for a fixed dipole. There will exist a maximum reactance point between those two frequencies. By definition of the bi-linear transformation rules involving the Smith Chart, the maximum reactance point will be located at the point where the SWR circle is tangent to the reactance arc. It simply cannot be located anywhere else.

It's an obvious geometrical thing, Tom. The SWR circle is centered at the center of the Smith Chart. The reactance arc (circle) is centered somewhere else outside of the Smith Chart. Where these two circles are tangent, the reactance is at a maximum, by definition. If the two circles are not tangent and not touching, then that cannot possibly be the maximum reactance point. If the two circles are not tangent and intersect at two points, then that cannot possibly be the maximum reactance point. In the latter case, the maximum reactance point lies between those two intersection points.

> The antenna impedance arc of the simple dipole I modelled
> indeed does not lie tangent to the max reactance arc at the same point
> as the SWR circle that's tangent that reactance arc.

Sorry, you did something wrong or don't understand what I am saying. It is impossible for the maximum reactance point not to be tangent to the reactance arc at the maximum reactance point. On the inductive top part of the Smith Chart, between 1/2WL and 1WL, if the circles intersect at more than one point, you are not at the maximum reactance point. If the circles intersect at one and only one point, they are tangent, by definition, and you are at the maximum reactance point. If they don't intersect at all, you are not at the maximum reactance point.

> In any event, I don't see that this tells us anything about _why_ the
> dipole shows max reactance at that particular frequency.

Because it's an obvious geometrical thing, Tom. It simply cannot be any other frequency and can be proved with relatively simple geometry.

EXAMPLE: 1/2WL resonant feedpoint impedance is 50+j0 ohms.
One-wavelength (anti)resonant feedpoint impedance is 5000 ohms.
Maximum reactance point has a feedpoint impedance of 2500+j2500 ohms.

The SWR circle (at the frequency of maximum reactance) will pass through
the 2500+j2500 ohm point. Do you disagree?

The reactance arc (at the frequency of maximum reactance) will pass
through the 2500+j2500 ohm point. Do you disagree?

ERGO: The SWR circle will be tangent to the reactance arc at the
2500+j2500 ohm point no matter what Z0 is being used. Do you
disagree?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4857. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 16:10:36 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <1CY8c.13431$_U.6255@lakeread05>
Source record: 97629

Paul wrote
> Hello, very ggod suggestion, I never thought of that. Now here is my
> question to that. In using your idea of the dacron rope holding up the
> antenna, can I run the coax parallel with the leg of the dipole along
> the dacron rope that is closest to the house to the balun? Would that
> give any ill effects? Or would the coax have to run along the ground
> underneath the antenna and come up to the antenna and connect at the
> balun at a 90 degree angle? I am trying to avoid lines or poles in the
> middle of the backyard, little one is almost old enough to run around
> backyard.
> Thanks
> Paul

Paul,

The little one pulling the feedline off the balun is a hazard not considered in most antenna planning! Maybe that s/b a standard allowance in line-strength and coax-connection type ;-)

I would avoid the radiation into a feedline that running alongside the wire antenna would surely make. You could try letting the center-feed hang down several feet below the antenna wire then draw it back up to the roof top and henceforth down into the shack.

Maybe Doc's reply can elaborate how his compromise works, but it seems to be a lot less efficient that the standard dipole, which would then send you back to the end (or start) fed random wire idea.

Best,

Jack

4858. Re: Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 17:07:43 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <mno860ta2js5nhnjapciiel2dktgvo0bal@4ax.com>
Source record: 97630

On Fri, 26 Mar 2004 01:02:41 GMT, "Harold E. Johnson"
<W4ZCB@mchsi.com> wrote:
>The 355's are a piece of cake. You can do it with DC and a voltmeter.

Thanks.

Follow-up question: Are the connectors standard chassis mounts? Or
are they some proprietary HP item? I would like to replace one, but
they are not listed in the manual as being one of the replaceable
parts.

Ken C

Ken
(to reply via email
remove "zz" from address)

4859. Re: Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 17:45:28 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <Y_Z8c.100227$_w.1310766@attbi_s53>
Source record: 97631

> Follow-up question: Are the connectors standard chassis mounts? Or
> are they some proprietary HP item? I would like to replace one, but
> they are not listed in the manual as being one of the replaceable
> parts.

Well, they probably suspect that some nut would overheat the precision resistor inside, or move one of the "fudge" tabs that are in there to provide a controlled capacity that allows them to rate the things to the frequency they do. (Some are DC to 500 MHz and some are DC to 1 GHz.) A good attenuator IS a precision piece of test equipment and should be well cared for.

I've never replaced one, but the thread count is the same as some bulkhead BNC's that I have, and would expect them to be replaceable if you took care to NOT do at least one of the above. Look at the replacement connector and ascertain that it is the same as the one you wish to replace before taking that giant leap. That particularly pertains to LENGTH of the threaded portion of the connector as well as the thread count itself. There's not a lot of spare room on the inside. Just might require some machine shop turning of available BNC connectors.

I have a few that were from cannibalized test equipment. HP 312's, 313's and old 8640's. some of those have SMA and SMB connectors that were swedged into the cast frame and were immoveable without drilling out and retapping for a larger connector. You might investigate what you have from that point of view, since if they're already swedged BNC's, you can't install type "N"'s as a one way replacement, there's not enough room.

W4ZCB

4860. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 18:24:06 UTC
From: rlcqqqq@yahoo.com
Message-ID: <b24cac7c.0403261024.9baae38@posting.google.com>
Source record: 97632

'Doc <w5lz@cwis.net> wrote in message news:<40643809.55613544@cwis.net>...
> Paul,
> Another suggestion, end feed a center fed dipole. That
> doesn't
> make much sense, but thats because I don't know how to describe
> it.
> In effect, run the coax ~through~ one half of the dipole to the
> center where the feed point is. One way is to double the braid
> back
> onto it's self. The folded back braid makes up half the dipole,
> the
> center conductor is the 'other' half. I'm sure there are better
> descriptions and pictures somewhere, I'll see if I can find one.
> 'Doc
Wow, that is a very interesting concept. An antenna consisting of all
coax. That would solve a lot of configuration problems, and leave the
backyard clear of obsticles other than the antenna over head. Has
anyone had experience with one of these? Although that would be quite
a bit of coax for an 80 foot run, plus lead in to the shack, but that
would solve a lot of problems. What would the coax size have to be?
Could rg-8u be used? I wil have to check the cost though. Thanks for
the suggestions.
Paul

4861. Re: Antenna pattern from two antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 18:25:17 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403261025.40e7fa25@posting.google.com>
Source record: 97633

acepilot <acepilot@bloomer.net> wrote in message
>
> I've often thought of giving the crossed dipoles (I guess you call it a
> turnstile antenna) a try on 75M since a 2 element yagi or quad there
> might be a bit unwieldy :O

I've used turnstiles on 75m off and on for quite a few years. If you
are looking for gain over a dipole, don't bother. You won't see it.
You will only have the gain of a dipole when fed in phase, or 180
degrees out. "Changes direction".
The gain when fed 90 degrees out will be less than a dipole, being the
pattern becomes nearly omnidirectional. Don't let this totally scare
you away though..
Myself, I think the turnstile is one of the best NVIS antennas you can
use on the lower hf bands. If you want gain over a dipole, run them
parallel, and change phase. You'll see more gain over a dipole, if
thats what you want. MK

4862. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 18:33:07 UTC
From: rlcqqqq@yahoo.com
Message-ID: <b24cac7c.0403261033.4cf29e54@posting.google.com>
Source record: 97634

'Doc <w5lz@cwis.net> wrote in message news:<40643809.55613544@cwis.net>...
> Paul,
> Another suggestion, end feed a center fed dipole. That
> doesn't
> make much sense, but thats because I don't know how to describe
> it.
> In effect, run the coax ~through~ one half of the dipole to the
> center where the feed point is. One way is to double the braid
> back
> onto it's self. The folded back braid makes up half the dipole,
> the
> center conductor is the 'other' half. I'm sure there are better
> descriptions and pictures somewhere, I'll see if I can find one.
> 'Doc
Doc, I found some info on the antenna you describe. It can found at
<http://www.xs4all.nl/~pa0nhc/antenne/cobra80/cobra.htm>
And the weird thing is he had the exact same problem I'm having. I
think this is the solution to my problem. Thanks
Paul
KC9EYE
Hobart, IN

4863. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 19:00:25 UTC
From: The other John Smith <jocjo-john@yooha.com>
Message-ID: <d5%8c.2560$lt2.2266@newsread1.news.pas.earthlink.net>
Source record: 97635

It is called a coaxial antenna. It is usually used in the vertically
polarized orientation, but don't let that stop you from using it in any
other orientation.

"'Doc" <w5lz@cwis.net> wrote in message news:40643809.55613544@cwis.net...
>
>
> Paul,
> Another suggestion, end feed a center fed dipole. That
> doesn't
> make much sense, but thats because I don't know how to describe
> it.
> In effect, run the coax ~through~ one half of the dipole to the
> center where the feed point is. One way is to double the braid
> back
> onto it's self. The folded back braid makes up half the dipole,
> the
> center conductor is the 'other' half. I'm sure there are better
> descriptions and pictures somewhere, I'll see if I can find one.
> 'Doc

4864. Flakey Ham IV Control Unit F-I-X-E-D !!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 19:13:42 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-FF2382.13134326032004@newssvr23-ext.news.prodigy.com>
Source record: 97636

First, I want to thank everyone that responded to my posting regarding the flakey meter that seemed to have a mind of it own with the needle dropping to the South (full right) side.

I pulled the cover tonight and put some tissue around to absorb the over spray. I then sprayed-the-hell out Calibration pot with Radio Shack contact cleaner and gave it a real work out with the power OFF. After it was dry, I turned on the power and the needle for the first time in two months showed the location of the beam. Yea! I no longer have to go outside with a flashlight to see where the beam is pointed.

The above is the good new and what I thought was the problem. When i replaced the cover and pushed on the top, the needle dropped back to South. Pulled the cover and the problem was the with the reflective tape I installed several months ago to help with a luminescence issue with the 28 volt lamp. (This was another long shaggy dog story about a 12 volt bulb burning a hole in the plastic meter case that had to be replaced). The fix was easy to just remove part of the reflective tape that was touching the lamp solder joint. Replaced the cover with a thin 1/4" strip of reflective tape on the edge by the lamp. Something tells me this may have been most of the problem.

The rotor and control unit are now working FB.

Dick - AA5VU

4865. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 19:42:29 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403261142.3b8f7814@posting.google.com>
Source record: 97637

I agree that it's an obvious geometrical thing...and it could be that I'm simply not understanding what you're trying to communicate. But...do a simulation of the "dipole1.ez" that ships with EZNec, after first changing the number of segments to 31 so it doesn't complain. Find the frequency between 300MHz and 600MHz which maximized the reactance. I believe you will find it at about 494MHz, and the reactance is +j866.0 ohms. At that frequency, the resistive part is 1085 ohms. Put that on a Smith chart whose reference resistance is 50 ohms. Draw a constant-SWR circle (35.542; magnitude of rho = .9453) through that point. Note that there are two constant-reactance arcs tangent to that SWR circle, and note that they are NOT tangent at the antenna's impedance point. In fact, it's reasonably easy to calculate them as +/-j887.8. Now change the reference impedance to 2000 ohms, and note that the constant SWR circle which passes through the antenna max-reactance impedance point is nowhere near the point that SWR circle is tangent to a reactance arc. The SWR for 1085+j866 referred to 2000 ohms is 2.296, magnitude of rho = .3932. The constant SWR circle in this case is tangent to reactance arcs of +/-j1860.28.

I certainly agree that the point where a reactance arc is tangent with an SWR circle is the maximum reactance on that SWR circle, but that's not necessarily (and generally is NOT) also a point on the curve representing antenna feedpoint impedance versus frequency. -- Did I miss something fundamental here? Are we not discussing how the antenna feedpoint impedance changes with frequency, and specifically the frequency between half and full wave resonances at which the antenna feedpoint reactance is maximum?

And still, all this does NOTHING to tell us WHY the antenna's reactance reaches maximum at that particular frequency. Again, maybe I missed it, but I didn't see anything in your swr circles and reactance arcs explanation that even mentioned frequency.

Example: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:<40645239_5@corp.newsgroups.com>...
> Tom Bruhns wrote:
> > I'm sorry, Cecil, but you lost me there. For any given SWR circle,
> > there are only two (complex conjugate) points at which reactance arcs
> > are tangent. Why would we think that the point of max reactance on
> > the antenna impedance curve will necessarily be at the point of
> > tangency?
>
> Note: I am talking about the frequencies between the 1/2WL resonant
> point and the one-wavelength (anti)resonant point for a fixed dipole.
> There will exist a maximum reactance point between those two

> frequencies. By definition of the bi-linear transformation rules
> involving the Smith Chart, the maximum reactance point will be
> located at the point where the SWR circle is tangent to the
> reactance arc. It simply cannot be located anywhere else.
>
> It's an obvious geometrical thing, Tom. The SWR circle is centered at
> the center of the Smith Chart. The reactance arc (circle) is centered
> somewhere else outside of the Smith Chart. Where these two circles are
> tangent, the reactance is at a maximum, by definition. If the two circles
> are not tangent and not touching, then that cannot possibly be the maximum
> reactance point. If the two circles are not tangent and intersect at two
> points, then that cannot possibly be the maximum reactance point. In the
> latter case, the maximum reactance point lies between those two intersection
> points.
>
> > The antenna impedance arc of the simple dipole I modelled
> > indeed does not lie tangent to the max reactance arc at the same point
> > as the SWR circle that's tangent that reactance arc.
>
> Sorry, you did something wrong or don't understand what I am
> saying. It is impossible for the maximum reactance point not to be
> tangent to the reactance arc at the maximum reactance point. On the
> inductive top part of the Smith Chart, between 1/2WL and 1WL, if the
> circles intersect at more than one point, you are not at the maximum
> reactance point. If the circles intersect at one and only one point,
> they are tangent, by definition, and you are at the maximum reactance
> point. If they don't intersect at all, you are not at the maximum
> reactance point.
>
> > In any event, I don't see that this tells us anything about _why_ the
> > dipole shows max reactance at that particular frequency.
>
> Because it's an obvious geometrical thing, Tom. It simply cannot be any
> other frequency and can be proved with relatively simple geometry.
>
> EXAMPLE: 1/2WL resonant feedpoint impedance is 50+j0 ohms.
> One-wavelength (anti)resonant feedpoint impedance is 5000 ohms.
> Maximum reactance point has a feedpoint impedance of 2500+j2500 ohms.
>
> The SWR circle (at the frequency of maximum reactance) will pass through
> the 2500+j2500 ohm point. Do you disagree?
>
> The reactance arc (at the frequency of maximum reactance) will pass
> through the 2500+j2500 ohm point. Do you disagree?

Certainly the +j2500 ohm reactance arc will pass through 2500+j2500.
But that reactance arc is not tangent to the SWR circle that passes
through that point, necessarily. Draw the chart with Zref set to
10,000 ohms, and you'll instantly see this. Draw the chart with
Zref=50 ohms, and it will be difficult to see, but in fact if you go

through the calcs, I believe you'll find a slight discrepancy even there! The point of tangency is not exactly where R=X, though it's close for high SWR. But try it for a low SWR circle, and it will be visually obvious on the Smith chart. For example, on a 50 ohm chart, SWR=1.63 will be tangent to +/-j25 ohm reactance arcs, but at roughly 55 ohms resistive, no where near 25 ohms resistive.

>
> ERGO: The SWR circle will be tangent to the reactance arc at the
> 2500+j2500 ohm point no matter what Z0 is being used. Do you
> disagree?

Sure do. See numerical examples above.

4866. Re: Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 20:01:26 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c422a8$4ii$1@newshost.mot.com>
Source record: 97638

"Ken" <cprstn54zz@att.net> wrote in message
news:bd5760do6pnue4ahqu38ltfhen556icps0@4ax.com...
> On Fri, 26 Mar 2004 01:02:41 GMT, "Harold E. Johnson"
> >The 355's are a piece of cake. You can do it with DC and a voltmeter.
>
>
> Hmmm. I tried it with an ohmmeter and didn't get what I expected.
> Resistance increased to around 100 ohms and stayed there from around
> 60 dB up.
>.....> Ken KC2JDY

...does .."...on up" mean 60, 70, 80, 90. I don't remember the 355. Must
be a "D" ??

HOLD ON! Did you guys miss this part ? For a resistive attenuator, With
it set between 20dB and 60dB DC resistance will read very close to 50 ohms
from either center pin to ground. Then as the attenuation is reduced to its
minimum the resistance will climb. Both ends should read the same.

Figuring quickly (no pads or ohm meter handy) I may have this wrong, but in
true Usenet fashion will try anyway... Couldn't do it, so I cheated...

Using:
http://www.temcom.com/pages/dBCalc_en.html

Pad Rin (R1 + R3 Output open ckt)
1dB 436
3 150.5
6 83.6
10 61

355C Coaxial Step Attenuator Agilent 355
DC to 1 GHz, 0 to 12 dB in 1 dB steps, BNC connection standard.

355D Coaxial Step Attenuator Agilent 355
DC to 1 GHz, 120 dB in 10 dB steps, BNC connectors.

4867. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 20:35:58 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40649486_2@corp.newsgroups.com>
Source record: 97639

Tom Bruhns wrote:
> I certainly agree that the point where a reactance arc is tangent with
> an SWR circle is the maximum reactance on that SWR circle, but that's
> not necessarily (and generally is NOT) also a point on the curve
> representing antenna feedpoint impedance versus frequency. -- Did I
> miss something fundamental here?

I suspect you missed that my input to the discussion assumes a thin wire
at HF frequencies. Try an HF dipole with a thin wire and see what you get.
It will be approximately the same curve as Fig. 10, page 2-10, ARRL Antenna
Book, 15th edition. Since this is the graph of an end-fed antenna, the
dipole response can be obtained by multiplying the frequencies by 2.
Everything I have said has been extrapolated from that graph in the
ARRL Antenna Book which is, as I said before, an "imperfect circle or
imperfect spiral".

> Are we not discussing how the
> antenna feedpoint impedance changes with frequency, and specifically
> the frequency between half and full wave resonances at which the
> antenna feedpoint reactance is maximum?

Yes, that's true. Now try it with a thin wire on HF. I believe what
you will find is that at the maximum reactance point, the resistance
is approximately half of the one-wavelength (anti)resonant value.
At the maximum reactance point, the resistance and reactance are
approximately equal. Since the maximum reactance value lies between
two points of pure resistance, doesn't it make sense that it might
be approximately where the resistance is half of the maximum value
of resistance?

Maybe you should just tell us why you disagree with Fig. 10 in the
ARRL Antenna Book, 15th edition, page 2-10.

If you want to see a dipole feedpoint impedance Vs frequency, it
is illustrated in Figs. 2-5, Page 2-3,4, ARRL Antenna Book CD,
version 2.0. Unfortunately, they plotted reactance on a linear
scale and resistance on a log scale and thus messed up the
shape of the "imperfect circle or imperfect spiral". Even with
that, one can see that the point of maximum reactance approximately
equals the resistance at that point and is approximately half the
value of the maximum resistance.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!

------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4868. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 20:51:04 UTC
From: tdonaly@aol.com
Message-ID: <20040326155104.15684.00000152@mb-m04.aol.com>
Source record: 97640

Tom Bruhns wrote,

(Snip)
>
>And still, all this does NOTHING to tell us WHY the antenna's
>reactance reaches maximum at that particular frequency. Again, maybe
>I missed it, but I didn't see anything in your swr circles and
>reactance arcs explanation that even mentioned frequency.
>

In Constantine Balanis book _Antenna Theory Analysis and Design_
second edition Section 8.5 page 411, there are a couple of charts of
resistance and reactance that illustrate the original question. On
the facing page (page 410) equations are given for R and X at
current maximum points on a dipole. If these equations are
correct it's not hard to believe that their respective maxima don't
coincide since the equations are different. If anyone wants to
understand where the equations come from he can read chapter
eight in all its gory entirety. It's not simple and requires more than
just a familiarity with a Smith chart. Cecil should read before he
thinks.
73,
Tom Donaly, KA6RUH

4869. I NEED YOUR HELP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 21:37:05 UTC
From: "Gary C. Cash" <cash@in-tch.com>
Message-ID: <c427nomjl1@news.tamerica.net>
Source record: 97641
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,tnn.radio.a

TO ALL RADIO AMATEURS:

I, ALONG WITH A FRIEND OF MINE, W7ARO (Ed Bodenberger), ARE TRYING TO
COMPILE A LIST OF AMATEUR RADIO OPERATORS AND THEIR CALLSIGNS FOR HISTORICAL
PURPOSES. ALL OF THE FOLLOWING NAMES ARE THOSE OF SILENT KEYS FOR WHICH WE
HAVE NO CALLSIGN AVAILABLE AND ALL ARE FROM MONTANA. IF YOU HAVE AT SOMETIME
WORKED ANY OF THESE INDIVIDUALS AND HAVE RECORD OF A CALLSIGN YOU RESPONSE
WOULD BE GREATLY APPRECIATED.

TOM GIBSON
HAROLD PETERSON
ED BINGLER
RON WRIGHT
BILL MONEYSMITH
PHIL HAGMAN
OSCAR RICE

73's
GARY
WQ7S
cash@in-tch.com

4870. coax antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 21:55:12 UTC
From: Joseph Fenn <jfenn@lava.net>
Message-ID: <Pine.BSI.4.58.0403261148480.24762@malasada.lava.net>
Source record: 97642

Way back in the '50's they had some kind of a coax antenna that
consisted of two sections of coax a 1/4 wavlength long, flatop
but cant remember how it was fed by another rg8u section.
I think the radiating part of the coax had the center conductor
running straight thru from end to end, but the shielding only
was carefully severed at the middle of the line and the feed line
was then connected to the severed sheilds. Am not sure now
as my memory is hazy this late in the game, but that Antenna
did produce an outstanding signal on the freqcy it was cut for.
Joe/kh6jf

****
* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
****

4871. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 22:06:31 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403261406.5e0b4bfa@posting.google.com>
Source record: 97643

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40645239_5@corp.newsgroups.com>...
...
> The SWR circle (at the frequency of maximum reactance) will pass through
> the 2500+j2500 ohm point. Do you disagree?
>
> The reactance arc (at the frequency of maximum reactance) will pass
> through the 2500+j2500 ohm point. Do you disagree?
>
> ERGO: The SWR circle will be tangent to the reactance arc at the
> 2500+j2500 ohm point no matter what Z0 is being used. Do you
> disagree?

Re: that specific example, using a reference impedance of 50 ohms...

magnitude of rho for 2500.00+j2500.00 = .9801999804
magnitued of rho for 2500.25+j2500.00 = .9801999801
magnitude of rho for 2500.50+j2500.00 = .9801999800
magnitude of rho for 2500.75+j2500.00 = .9801999801
magnitude of rho for 2501.00+j2500.00 = .9801999804

The point of tangency to an SWR circle for the +j2500.00 arc is
therefore NOT at 2500.00+j2500.00. It will be much more obvious if
you recalculate things at a higher reference impedance, say 1000 ohms.
Then following the +j2500 reactance arc, mag(rho) reaches a minimum
when Z is about 2692+j2500. And in any event, I think it highly
unlikely that the antenna's resistance when the reactance peaks at
2500 ohms will be exactly 2500 ohms as well.

4872. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 22:20:24 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4064acfe$1_2@corp.newsgroups.com>
Source record: 97644

Tdonaly wrote:
> Cecil should read before he thinks.

Tom, why do you require 6 decimal point precision out
of a ballpark rule-of-thumb estimate? The maximum reactance
point of a thin-wire dipole is in the neighborhood of the maximum
reactance point of the SWR circle as proved by the graphs in the
ARRL Antenna Book CD. The maximum reactance is approximately equal
to 1/2 the maximum resistance. The resistance at the maximum reactance
point is approximately equal to 1/2 the maximum resistance. If someone
carries those ballpark concepts around in his head, he will be
reasonably close to reality. It's all cut-and-try after that.

Exactly what agenda forces you to sacrifice your reputation trying to
find some unusual esoteric exception to my statements? (Never mind,
I already know the answer.)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4873. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 22:29:59 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4064af3d$1_2@corp.newsgroups.com>
Source record: 97645

Tom Bruhns wrote:
> Re: that specific example, using a reference impedance of 50 ohms...
>
> magnitude of rho for 2500.00+j2500.00 = .9801999804
> magnitued of rho for 2500.25+j2500.00 = .9801999801
> magnitude of rho for 2500.50+j2500.00 = .9801999800
> magnitude of rho for 2500.75+j2500.00 = .9801999801
> magnitude of rho for 2501.00+j2500.00 = .9801999804
>
> The point of tangency to an SWR circle for the +j2500.00 arc is
> therefore NOT at 2500.00+j2500.00.

Good Lord, Tom, do you have to stoop so low as to argue over
0.0000000003? I said it was a ballpark rule-of-thumb estimate
to start with. Just what agenda are you following that requires
greater than 0.0000000003 accuracy out of a ballpark rule-of-
thumb estimate? No need to answer - I already know the answer.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4874. Re: I NEED YOUR HELP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 22:54:41 UTC
From: K3HVG <jeepp@adelphia.net>
Message-ID: <keOdnaZWPtwNLvndRVn-hA@adelphia.com>
Source record: 97646
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,tnn.radio.a

I'm not certain, maybe just a coincidence, but there's a Tom Gibson I know/met who's has some ties to Montana. He may have worked up there for some time. This fellow was also a maritime operator and is currently (I hope!) an officer on the museum ship John Brown (Liberty Ship in Baltimore). Last time I saw Tom was aboard last year. Might this be the same person?

Gary C. Cash wrote:
> TO ALL RADIO AMATEURS:
>
> I, ALONG WITH A FRIEND OF MINE, W7ARO (Ed Bodenberger), ARE TRYING TO
> COMPILE A LIST OF AMATEUR RADIO OPERATORS AND THEIR CALLSIGNS FOR HISTORICAL
> PURPOSES. ALL OF THE FOLLOWING NAMES ARE THOSE OF SILENT KEYS FOR WHICH WE
> HAVE NO CALLSIGN AVAILABLE AND ALL ARE FROM MONTANA. IF YOU HAVE AT SOMETIME
> WORKED ANY OF THESE INDIVIDUALS AND HAVE RECORD OF A CALLSIGN YOU RESPONSE
> WOULD BE GREATLY APPRECIATED.
>
> TOM GIBSON
> HAROLD PETERSON
> ED BINGLER
> RON WRIGHT
> BILL MONEYSMITH
> PHIL HAGMAN
> OSCAR RICE
>
> 73's
> GARY
> WQ7S
> cash@in-tch.com
>
>
>
>

4875. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 22:57:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s3d960dt66ghpc35t3lmidbar8scoa27ul@4ax.com>
Source record: 97647

On Fri, 26 Mar 2004 16:29:59 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>No need to answer - I already know the answer.

On Fri, 26 Mar 2004 16:20:24 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>(Never mind,
>I already know the answer.)

Who would've thougth otherwise? Foolish boys.

4876. Re: coax antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 22:58:39 UTC
From: Jesse <NOSPAMtouhey@olypen.com>
Message-ID: <1069dd165oa0h9a@corp.supernews.com>
Source record: 97648

"Joseph Fenn" <jfenn@lava.net> wrote in message
news:Pine.BSI.4.58.0403261148480.24762@malasada.lava.net...
> Way back in the '50's they had some kind of a coax antenna that
> consisted of two sections of coax a 1/4 wavlength long, flatop
> but cant remember how it was fed by another rg8u section.
> I think the radiating part of the coax had the center conductor
> running straight thru from end to end, but the shielding only
> was carefully severed at the middle of the line and the feed line
> was then connected to the severed sheilds. Am not sure now
> as my memory is hazy this late in the game, but that Antenna
> did produce an outstanding signal on the freqcy it was cut for.
> Joe/kh6jf
>
>
> **
> * Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *

> **

The antenna was called a "Bazooka". It was claimed to have 10db gain over
a dipole, with much less QRN pickup. In reality, it had less gain than a
standard dipole at the same height, and of course,
less QRN pickup.
73, Jesse
W6KKT
>

4877. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-26 23:31:28 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4064bda6_3@corp.newsgroups.com>
Source record: 97649

Cecil Moore wrote:
> Good Lord, Tom, do you have to stoop so low as to argue over
> 0.0000000003? I said it was a ballpark rule-of-thumb estimate
> to start with. Just what agenda are you following that requires
> greater than 0.0000000003 accuracy out of a ballpark rule-of-
> thumb estimate? No need to answer - I already know the answer.

In case anyone has forgotten, here's what I said in an earlier posting:

At least for my multi-band dipole, it appears that the anti-resonant
feedpoint impedance is about 100 times the resonant feedpoint impedance.
The feedpoint impedance at the maximum reactance point is about 5000/2+j5000/2,
i.e. the R is about half the anti-resonant resistance and the Xmax is about
half the anti-resonant resistance times 'j'. These are my rules-of-thumb for
my dipole.

Does everyone understand the meaning of "appears", "about", and "rules-of-thumb"?
In my world, 20% accuracy out of a rule-of-thumb is pretty good. Does anyone else
(besides Tom) have rules-of-thumb that achieve 0.0000000003 accuracy?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4878. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 00:13:35 UTC
From: tdonaly@aol.com
Message-ID: <20040326191335.04330.00000131@mb-m17.aol.com>
Source record: 97650

Cecil wrote,
>
>Tdonaly wrote:
>> Cecil should read before he thinks.
>
>Tom, why do you require 6 decimal point precision out
>of a ballpark rule-of-thumb estimate? The maximum reactance
>point of a thin-wire dipole is in the neighborhood of the maximum
>reactance point of the SWR circle as proved by the graphs in the
>ARRL Antenna Book CD.
> The maximum reactance is approximately equal
>to 1/2 the maximum resistance. The resistance at the maximum reactance
>point is approximately equal to 1/2 the maximum resistance. If someone
>carries those ballpark concepts around in his head, he will be
>reasonably close to reality. It's all cut-and-try after that.
>

Cecil, I know you have the Balanis book and that you even took a course from the great man, himself. You can crack the book and look at the curves as well as anyone can. You can also read the rest of the explanation, and, with a lot of work, puzzle it out and improve your understanding so you don't have to rely on rules of thumb that get you into arguments like this.

>Exactly what agenda forces you to sacrifice your reputation trying to
>find some unusual esoteric exception to my statements? (Never mind,
>I already know the answer.)

I don't have a reputation. If I did it wouldn't mean anything to me anyway. Balanis is hardly an "unusual esoteric exception." If you think I have an "agenda" you're letting your paranoia get the better of you. (No, I'm not looking for a job on Kerry's campaign committee.)

>--
>73, Cecil http://www.qsl.net/w5dxp
>

73,
Tom Donaly, KA6RUH

4879. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 00:24:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c4i9605s7if0qtv80k9foac53rchp2oqhj@4ax.com>
Source record: 97651

On Fri, 26 Mar 2004 17:31:28 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Does anyone else
>(besides Tom) have rules-of-thumb that achieve 0.0000000003 accuracy?
E = I ï¿½ R

4880. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 00:41:29 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <S--dnYGilOU2UPndRVn-ug@comcast.com>
Source record: 97652

"'Doc" <w5lz@cwis.net> wrote in message news:40643809.55613544@cwis.net...
>
>
> Paul,
> Another suggestion, end feed a center fed dipole. That
> doesn't
> make much sense, but thats because I don't know how to describe
> it.
> In effect, run the coax ~through~ one half of the dipole to the
> center where the feed point is. One way is to double the braid
> back
> onto it's self. The folded back braid makes up half the dipole,
> the
> center conductor is the 'other' half. I'm sure there are better
> descriptions and pictures somewhere, I'll see if I can find one.
> 'Doc

That might be an original idea, a sleeve vertical mounted horizontally.

Tam/WB2TT

4881. Re: coax antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 00:48:48 UTC
From: Joseph Fenn <jfenn@lava.net>
Message-ID: <Pine.BSI.4.58.0403261445350.26871@malasada.lava.net>
Source record: 97653

Thanks Jesse yep thats the one all right! A fellow about a mile
from me had one setup in 1952 and he used a Johnson Viking Desk
type 500w rig. I had a 3 el beam cut for 21 mhz and darned if he
did'nt just about run neck and neck with me on signal reports.
I was useing the old Globe King 500 watt job at the time.
Joe/KH6JF

****
* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
****

On Fri, 26 Mar 2004, Jesse wrote:

>
> "Joseph Fenn" <jfenn@lava.net> wrote in message
> news:Pine.BSI.4.58.0403261148480.24762@malasada.lava.net...
> > Way back in the '50's they had some kind of a coax antenna that
> > consisted of two sections of coax a 1/4 wavlength long, flatop
> > but cant remember how it was fed by another rg8u section.
> > I think the radiating part of the coax had the center conductor
> > running straight thru from end to end, but the shielding only
> > was carefully severed at the middle of the line and the feed line
> > was then connected to the severed sheilds. Am not sure now
> > as my memory is hazy this late in the game, but that Antenna
> > did produce an outstanding signal on the freqcy it was cut for.
> > Joe/kh6jf
> >
> >
> > **********
> > * Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
>
>
> > **********
>
> The antenna was called a "Bazooka". It was claimed to have 10db gain over
> a dipole, with much less QRN pickup. In reality, it had less gain than a
> standard dipole at the same height, and of course,
> less QRN pickup.
> 73, Jesse
> W6KKT
> >
>
>
>

4882. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 01:14:03 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4064d5b1$1_2@corp.newsgroups.com>
Source record: 97655

Tdonaly wrote:
> ... so you don't have to rely on rules of thumb that get you
> into arguments like this.

Nice try at obfuscation, Tom, but I have previously identified my postings as only rules of thumb. You attempted to hold my rules of thumb to 0.00000000003 accuracy. Doesn't that make you feel the least bit silly? That's stretching things pretty far to try to prove that anyone who believes in reflected waves is crazy. Have you figured out how standing waves can occur without the existence of reflected waves yet? I've been holding my breath for that proof you promised.

If my rules of thumb are within 20% accuracy, I consider that pretty good.

And here I repeat my rules of thumb. The ratio of the resonant feedpoint impedance to the antiresonant impedance of a dipole is about 100 to 1. The maximum reactance point between those two frequencies is about Rmax/2+jRmax/2. If you can't prove that rule of thumb is less than 20% accurate, you have no argument.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4883. Re: coax end fed wire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 01:15:16 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <4064D5A4.E2DE2CB@cwis.net>
Source record: 97654

Paul,
I've used one of these things when portable. Worked
better than the mobile antenna, but I did use a tuner
(wasn't all that worried about losses at the time, no
harm to the tuner).
To keep the weight/cost/bulk down I used RG-58 coax (it
was going to be wound up and thrown in the trunk). If I
were going to make it a 'permanent' (no such thing!) antenna
I might use something larger, but I doubt it.
The center 'feed point' was weather proofed by sealing it
with some kind of 'goo', can't remember what it was, probably
silicon. Also found that winding a 'choke' a few feet from
the end where it came out of the folded back braid cut down
on RFI problems. Not that they were 'bad', but it didn't
hurt anything either.
I wouldn't count on it ever being a 'DX antenna' (whatever
that means), but it is an alternative...
'Doc

4884. Re: coax antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 01:29:05 UTC
From: White Rover <deltapapa1@hotmail.com>
Message-ID: <cN49c.247$3k6.71@newsfe2-gui.server.ntli.net>
Source record: 97656

Try this link and I am only a G1 http://www.qsl.net/we6w/ant0.html

"Joseph Fenn" <jfenn@lava.net> wrote in message
news:Pine.BSI.4.58.0403261148480.24762@malasada.lava.net...
> Way back in the '50's they had some kind of a coax antenna that
> consisted of two sections of coax a 1/4 wavlength long, flatop
> but cant remember how it was fed by another rg8u section.
> I think the radiating part of the coax had the center conductor
> running straight thru from end to end, but the shielding only
> was carefully severed at the middle of the line and the feed line
> was then connected to the severed sheilds. Am not sure now
> as my memory is hazy this late in the game, but that Antenna
> did produce an outstanding signal on the freqcy it was cut for.
> Joe/kh6jf
>
>
> **
> * Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
> **
>

4885. Will displacement current form a close loop ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 01:47:01 UTC
From: ieeestd802@yahoo.com
Message-ID: <43908fc6.0403261747.1a946099@posting.google.com>
Source record: 97657

Folks:

I have one question. We know normal conductor current form a close
loop,
is this also true for displacement current ?

In the following diagram, assume a an b are two long conductor wires,
form a close loop and source AC current flows in them, c and d are
another two long conductor wires, form a close loop too. There is no
source current in this loop. We want to investigate the induced
displacement due to source current in ab loop.

a b
+ -

+ -
c d

If we denote displacement current
from a to c as I_ac
from b to c as I_bc
from a to d as I_ad
from b to d as I_bd

Will I_ab = - I_bc ? (I do not think so, am I right ?)
Does this depend on the shape of abcd ?

Let I_c = I_ac + I_bc, total displacement current to c,
Let I_d = I_ad + I_bd, total displacement current to d,

will I_c = - I_d ?
Does this depend on the shape of abcd ?

If displacement current must form a close loop, I think I_c = - I_d
must true, but is this the case ?

Thanks.

Bow && Bow && Bow

4886. Re: I NEED YOUR HELP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 04:12:27 UTC
From: Larry Gagnon <lagagnon@fakeuniserve.com>
Message-ID: <1069vpblfkob4e9@corp.supernews.com>
Source record: 97658

On Fri, 26 Mar 2004 14:37:05 -0700, Gary C. Cash <cash@in-tch.com> wrote:
> TO ALL RADIO AMATEURS:
>
> I, ALONG WITH A FRIEND OF MINE, W7ARO (Ed Bodenberger), ARE TRYING TO
> COMPILE A LIST OF AMATEUR RADIO OPERATORS AND THEIR CALLSIGNS FOR HISTORICAL
> PURPOSES. ALL OF THE FOLLOWING NAMES ARE THOSE OF SILENT KEYS FOR WHICH WE
> HAVE NO CALLSIGN AVAILABLE AND ALL ARE FROM MONTANA. IF YOU HAVE AT SOMETIME
> WORKED ANY OF THESE INDIVIDUALS AND HAVE RECORD OF A CALLSIGN YOU RESPONSE
> WOULD BE GREATLY APPRECIATED.
>
> 73's
> GARY
> WQ7S
> cash@in-tch.com
>
Gary: just a little subtle hint if you don't mind. On email and
newsgroups please do not use capital letters. It is considered to be
shouting and bad form. Also it is against usenet etiquette to do post to
multiple groups as you have done.

Cheers,

Larry VE7EA
--
****
to reply via email remove "fake"

4887. Re: Testing and tuning mobile antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 04:46:51 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <%G79c.11221$Ag7.1628@newssvr22.news.prodigy.com>
Source record: 97659

"Patrick Gardella" <pgardella@yahoo.com> wrote in message
news:57d04feb.0403251426.7a897168@posting.google.com...
> Thanks, Doc.
>
> I don't have an antenna analyzer, so I can't check the resonant
> freq that way. I was relying on an SWR meter (my shack one).
> Nothing at all changes when I adjust the antenna. SWR doesn't
> move. I may try to borrow an analyzer from someone to check
> that out.
>
> The mount and cable are fine. Just got a new 2m/70cm dual
> band antenna to use until I can get the UHV-4 working.
> It has a nice SWR of around 1.3 on 2m.
>
> On the UHV-4 antenna, I can't get below an SWR on 2m of
> around 5 or 6, even though it's supposed to be ground
> independant (1/2 wavelength). I can't adjust the 2m/70cm
> at all anyway. It's fixed.

Verify that the screw-off connector (NMO or 259) is actually
making contact... what you're describing (super high swr on
HF, high swr on 2m) points to a piece of unterminated coax
with no antenna on the end! Try reading swr without the UHV4
connected... same reading? Bad connection...

--
Steve
KI5YG
.

4888. Reactive musings

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 05:18:46 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403262118.438224e@posting.google.com>
Source record: 97660

Cecil got me thinking about writing exact expressions for the maximum reactance for a given SWR, or equivalently for a given magnitude of reflection coefficient. Barring clerical errors (and I've checked a couple sample cases that seem OK), the following should be true.

Given r = magnitude of reflection coefficient in a system with a real-valued reference impedance Z0, the maximum reactance will occur when the reflection coefficient is

Rho = [2*r^2 + j*r*(1-r^2)]/(1+r^2)

Minimum reactance is obviously the complex conjugate of that.

The corresponding impedance is

Z = Z0 * (1+r^2 + j*2*r)/(1-r^2)

This may be commonly available in texts, or otherwise well known, but I don't recall seeing it before, so thought I'd post it.

(Maximum and minimum resistance should be obvious)

Cheers,
Tom

4889. Re: 'Q" does have a use in radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 05:25:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ra3a60lgcbtiqptvsf9pi7q0mp870735ao@4ax.com>
Source record: 97661

On 24 Mar 2004 17:51:31 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>"aunwin" <aunwin@insightbb.com> wrote in message news:<ln06c.30814 to the
>
>COMPUTOR COMPARISONS

Note additional column at end for comparison:

> ROTATABLE LOOP/DIPOLE VERT LOOP/DIPOLE BEVERAGE KB7QHC Vertical
>
>10 DEG -13 -5 -9 +4.66 dBi
>
>20 DEG -8 -3 -7 +4.21 dBi
>
>30 DEG -5 -3.3 -6.5 +3.44 dBi
>
>40 DEG -2.4 -4 -8 +2.29 dBi
>
>50 DEG -1.8 -6 -13 +0.68 dBi
>
>60 DEG -0.8 -8 -30
>
>70 DEG -0.6 -11
>
>80 DEG -0.0 -15
>
>90 DEG -0.0
>
> NOTE OUTSIDE CURVE = ZERO
> 0dB = 2.15dBi Frequency 1.9 MHz
>
>All above perfect ground
>Rotatable dipole @ 65 feet
>Vert Dipole 2 feet above ground
>Beverage 10 feet above ground
>Note that Beverage has beam pattern with good f/b
>Dipoles basically circular pattern and good for transmit and receive
>
>ART UNWIN KB9MZ

Hi Art,

I don't see to much to crow about. What point were you trying to
illustrate? You don't really describe the antennas very well, but it
doesn't seem to matter much given the numbers above. It does

illustrate how extremely poor dipoles do at 160M. A simple vertical seems to be considerably more effective than the three antennas you offer. By my comparisons up to 50 degrees, the KB7QHC Vertical has at LEAST 2.4 dB more gain than ANY of the three; at a more interesting angle of 10 degrees, the vertical shows an easy gain of +9 to +17 dB.

As for being on topic, what has this got to do with Q?

73's
Richard Clark, KB7QHC

4890. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 05:36:30 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403262136.4eb01cd5@posting.google.com>
Source record: 97662

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<40649486_2@corp.newsgroups.com>...

> Yes, that's true. Now try it with a thin wire on HF. I believe what
> you will find is that at the maximum reactance point, the resistance
> is approximately half of the one-wavelength (anti)resonant value.
> At the maximum reactance point, the resistance and reactance are
> approximately equal. Since the maximum reactance value lies between
> two points of pure resistance, doesn't it make sense that it might
> be approximately where the resistance is half of the maximum value
> of resistance?

That's pretty approximate, Cecil. From EZNec for a 10 meter 1mm diam
wire, I got about 2570+j2277 at 27.00MHz. The resistive and reactive
parts differ by over ten percent.

Be that as it may, if you evaluate the SWR tangency thing for a high
reference impedance, you will see that it's a GROSS error, not a tiny
one. You said it wouldn't change with changes in reference impedance,
but it does, and in a major way. Yes, the error is tiny for your
assumed 2500+j2500 evaluated against Z0 of 50 ohms, but the error is
huge if you evaluate against Z0 of, say, 2000 ohms.

And we're still back to not having said anything about _why_ the
reactance peaks at the frequency it does relative to the half- and
full-wave resonances.

Cheers,
Tom

4891. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 06:40:02 UTC
From: "R. Steve Walz" <rstevew@armory.com>
Message-ID: <40652261.DAC@armory.com>
Source record: 97663
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

maxfoo wrote:
>
> On Wed, 24 Mar 2004 15:29:28 -0600, "Stephen J. Rush" <steverush1@cox.net>
> wrote:
>
> >On Thu, 18 Mar 2004 08:18:55 -0800, Jan Panteltje wrote:
> >
> >> Unil the terrorists get nukes, then there will be no Jerusalem.
> >> It is as predictable as a TTL timer, only one outcome possible.
> >> It is probably far to late for Israel to change that outcome.
> >
> >Jerusalem is probably the only city in the region that _isn't_ a potential
> >nuke target. Too many sites sacred to both sides.
>
> a dirty nuke wouldn't physically damage any sacred sites. just contaminate the
> area for thousands of years so no one could live there.

But everyone knows that if Jerusalem goes, Mecca, Medina, Teheran,
Islamabad and a half dozen other Moslem cities get nuked. This
from the insiders in Israeli physics I have known when I was
married into a Jewish family for 20 years.

-Steve
--
-Steve Walz rstevew@armory.com ftp://ftp.armory.com/pub/user/rstevew
Electronics Site!! 1000's of Files and Dirs!! With Schematics Galore!!
http://www.armory.com/~rstevew or http://www.armory.com/~rstevew/Public

4892. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 12:23:25 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40657294$1_5@corp.newsgroups.com>
Source record: 97664
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

DarkMatter wrote:

> Dave Cole <davidwcole@earthlink.net> wrote:

>>Cecil.A.Moore@ieee.ONEDOT.org wrote:
>>
>>>DarkMatter wrote:
>>>>First, tell me how one "burns TNT". It is a high explosive. I
>>>>think its "burn rate" would be pretty fast, and not manageable.
>>>
>>>If one arranged the TNT into a fuse, how fast would it burn?
>>
>>Depends on whether you ignite it (Zippo, etc.) -moderate speed for a fuse-
>>or detonate it (initiator, blasting cap, etc.) -very fast... think
>>primacord. HTH Dave Cole
>
> Learn how to quote properly. I did not ask this question.

Since my heading is identified by '>>' any quote with '>>>' is mine.
Your heading is identified by '>>>' so your quotes use '>>>>'.
Everything above *is* quoted properly.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4893. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 12:51:52 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4065793f_5@corp.newsgroups.com>
Source record: 97665

Tom Bruhns wrote:
> That's pretty approximate, Cecil. From EZNec for a 10 meter 1mm diam
> wire, I got about 2570+j2277 at 27.00MHz. The resistive and reactive
> parts differ by over ten percent.

For an approximation that I carry around in my head, 20% accuracy
is good enough for me.

> Be that as it may, if you evaluate the SWR tangency thing for a high
> reference impedance, you will see that it's a GROSS error, not a tiny
> one. You said it wouldn't change with changes in reference impedance,
> but it does, and in a major way.

Actually, what I said is that the maximum reactance point on an SWR
circle doesn't depend upon Z0 and proved it with equations.
Xmax/Z01 = X1 normalized for Z01. Xmax/Z02 = X2 normalized for Z02.
X1 and X2 are different but Xmax is the same value no matter what the Z0.

> Yes, the error is tiny for your
> assumed 2500+j2500 evaluated against Z0 of 50 ohms, but the error is
> huge if you evaluate against Z0 of, say, 2000 ohms.

That wouldn't be a logical thing to do. The highest Z0 commonly available
to hams is around 600 ohms. The higher the SWR, the more accurate is this
approximation. Conversely, the lower the SWR the more inaccurate is
this approximation. Since I encounter SWR's in the general range of
10-25, it works pretty well for me.

> And we're still back to not having said anything about _why_ the
> reactance peaks at the frequency it does relative to the half- and
> full-wave resonances.

Why am I sitting at my computer right now? Because I'm not somewhere
else? :-) The reactance seems to peak about 85% of the way between the
1/2WL frequency and the one-wavelength frequency. QED folks seem to
be satisfied with just an equation which doesn't ask or answer, _why?_.
They say, "That's just the way it is."
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4894. Re: Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 14:11:03 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <0h2b60h57coi8vbbu44kfvvhtiojr52m1f@4ax.com>
Source record: 97666

On Fri, 26 Mar 2004 17:45:28 GMT, "Harold E. Johnson"
<W4ZCB@mchsi.com> wrote:
>I've never replaced one, but the thread count is the same as some bulkhead
>BNC's that I have, and would expect them to be replaceable if you took care
>to NOT do at least one of the above. Look at the replacement connector and
>ascertain that it is the same as the one you wish to replace before taking
>that giant leap. That particularly pertains to LENGTH of the threaded
>portion of the connector as well as the thread count itself. There's not a
>lot of spare room on the inside. Just might require some machine shop
>turning of available BNC connectors.

It *is* a standard bulkhead/chassis mount. Same threads and depth.
It was a little too tight until I wetted the threads with a little
WD-40. Then it went in easy as could be. Hardest part was removing
what felt like 50 little base screws. This thing is built to
withstand 50 g.

BTW, do you have a spare foot or two to sell? I am sure if I order
from HP it will be 25 cents per, plus $12 s&h.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

4895. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 14:26:14 UTC
From: Jan Panteltje <pNaonSptaemltje@yahoo.com>
Message-ID: <c442tl$lc4$1@news.wplus.net>
Source record: 97667
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

On a sunny day (Sat, 27 Mar 2004 06:40:02 GMT) it happened "R. Steve Walz"
<rstevew@armory.com> wrote in <40652261.DAC@armory.com>:

>But everyone knows that if Jerusalem goes, Mecca, Medina, Teheran,
>Islamabad and a half dozen other Moslem cities get nuked.
When I look at hthis statement closer, you see that now we have
lost Baghdad, and if teh US 'frees' ahum more Islam countries z(say keeps
pushing Iran, the currwent CIA operations in Siria, everytime the balance
for a Israeli targets for a 'strike back' decreases.
Lowwer threshold.
People who have nothing to lose do NOT go by any rules.
IMO Bush Jr want, before he leaves offcide, a worldwide fire started.
This to help his weaopon producing friends.
Same as Vietnam was for no reason at all....
So he may light middle east, China Taiwan, or both, or something else.
Here is a mirror for the US.
Its ugly.
But on the other hand, humanity has always been that way.
The beauty in it is it makes the species strong, PROVIDED there are
survivers.
But it would be more beautiful if people could live in peace.
We do have, as humans, a brain that alows us to view the world from
the others perspective.
Maybe we should put energy into making people use that part.
JP

4896. FA: Treasure Trove of Bird Equipment and other Ham Stuff!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 14:31:57 UTC
From: Chuck <chuck@chuck.com>
Message-ID: <iMmdnWdYIasvDfjdRVn-ig@comcast.com>
Source record: 97668

Up for auction is a veritable treasure trove of Bird equipment,
including 2 Model 43 meters, lots of slugs, cases, a Bird Coaxwitch
Model 74 and other good "stuff"

Please check it out, and thanks for looking!

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=lokarbo&page=1&rows=999

73, Chuck

4897. Re: Testing an attenuator?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 15:01:56 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <EHg9c.109350$po.779100@attbi_s52>
Source record: 97569

> BTW, do you have a spare foot or two to sell? I am sure if I order
> from HP it will be 25 cents per, plus $12 s&h.
>
THAT bothered me for a minute, was wondering a foot of what.

No I don't, but if you order some, we could dollar average, I'd like a
dozen.

W4ZCB

4898. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 16:28:22 UTC
From: tdonaly@aol.com
Message-ID: <20040327112822.04303.00000167@mb-m29.aol.com>
Source record: 97570

Cecil wrote,
>
>Tdonaly wrote:
>> ... so you don't have to rely on rules of thumb that get you
>> into arguments like this.
>
>Nice try at obfuscation, Tom, but I have previously identified my postings
>as only rules of thumb. You attempted to hold my rules of thumb to
>0.00000000003
>accuracy. Doesn't that make you feel the least bit silly? That's stretching
>things pretty far to try to prove that anyone who believes in reflected waves
>is crazy. Have you figured out how standing waves can occur without the
>existence
>of reflected waves yet? I've been holding my breath for that proof you
>promised.
>

I think you've got your Toms mixed up, Cecil. I haven't said anything about
0.000...003 accuracy. The rest of your post you'll have to take up with
Tom Bruhns, although I think your comments on whether or not I "believe
in" reflected waves is unmitigated balderdash.
I'm going to quit posting on this, Cecil. Your replies are
irrational and it's clear that the strain of dealing with two Toms at once
is too hard on your head.
73,
Tom Donaly, KA6RUH

4899. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 16:50:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4065b13f$1_3@corp.newsgroups.com>
Source record: 97571

Tdonaly wrote:
> ... I think your comments on whether or not I "believe
> in" reflected waves is unmitigated balderdash.

Have you changed your mind from last time?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4900. force 12 model EF-240SD ???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 16:57:36 UTC
From: Mark Choate <aa0yy@sbcglobal.net>
Message-ID: <4oi9c.2644$dE1.2000@newssvr23.news.prodigy.com>
Source record: 97572

looking for assembly instruction on what I believe is model# EF 240SD made by force 12.

this is a 2 element yagi on 40m.

back in 1998 I purchase 2 antennas from force 12. one was a tribander, the other this 2 el on 40m. The tribander was put into use right away. however the 40m just sat in a box.... a box with NO markings or model numbers at all on it... til recently. When the box was opened, NO assembly instructions were found. I contacted force 12, explained my problem to them. they said that would be happy to mail the instructions FOR 25 BUCKS! I reminded them that I spent better part of a thousand dollars with their outfit and didn't think asking for the assembly instructions were too much to ask. Their reply was, ahuh.... 25 dollars plus postage and we'll be happy to help you. goodbye.

anyone got this antenna that I might get a copy of the assenbly instructions?

Thanks for the read,
Mark Choate

4901. force 12 model EF 240 SD Help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 17:08:09 UTC
From: Mark Choate <aa0yy@sbcglobal.net>
Message-ID: <Zxi9c.2645$pH1.431@newssvr23.news.prodigy.com>
Source record: 97573

Thanks for the read,

I am in need of assembly instructions for what I believe to be a EF 240 SD antenna. Its a force 12 ... 2 elements on 40m.

back in 1998 I purchased 2 antennas from force 12, one a tribander that immediately got installed, the other this 2 el 40m yagi. the 40m sat in a box..... a box that had NO markings/model number etc on it.... till recently. When I opened up the box there were no instructions.... ziltch! I contacted force 12 and explain my problem. They said for 25 dollars plus postage they would be happy to send them. I reminded them that I just spent close to a thousand dollars with their company and that assembly instructions should not be too much to ask. They responded with.... ahuh, 25 dollars sir.... goodbye.

does anyone have asssembly instructions for this antenna. the force 12 website has no help for me.... neither does the staff for that matter without an addition 25 bucks

Thanks in advance,

Mark aa0yy

4902. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 18:10:36 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4065c3f5$1_5@corp.newsgroups.com>
Source record: 97574

Tdonaly wrote:
> I think you've got your Toms mixed up, Cecil. I haven't said anything about
> 0.000...003 accuracy.

I didn't say you did, Tom. That "you" I used was plural. Maybe
I should have said "y'all"?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4903. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 18:49:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ppib609d25ivad2ogk823fk7q6pnpge79p@4ax.com>
Source record: 97575

On Sat, 27 Mar 2004 12:10:36 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Tdonaly wrote:
>> I think you've got your Toms mixed up, Cecil. I haven't said anything about
>> 0.000...003 accuracy.
>
>I didn't say you did, Tom. That "you" I used was plural. Maybe
>I should have said "y'all"?

On Fri, 26 Mar 2004 19:14:03 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Nice try at obfuscation,

The plural "you" is inclusive, which is still a miss-attribution.
This compounds the error.

4904. Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 19:28:33 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c44kl2$2d1a24$1@ID-225206.news.uni-berlin.de>
Source record: 97576

Can I use a long wire at 6m with a random wire antenna tuner?
The wire is about 1/4 mile long, and off the ground about 6 foot,
(old electrified fence line on top of a fence)
Any Idea what the pattern would be? or if it would work?

Thanks

4905. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 19:38:06 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403271138.5bc073b6@posting.google.com>
Source record: 97577

Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:<4065793f_5@corp.newsgroups.com>...

> For an approximation that I carry around in my head, 20% accuracy
> is good enough for me.

Ah, we started out with exact geometric relationships that defined
precise points, and now we're down to 20% accuracy being OK. I got
it. Thanks.

Cheers,
Tom

4906. compact motorized telescoping antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 20:10:18 UTC
From: Jonathan Barraclough <solar-flight@earthlink.net>
Message-ID: <Kcl9c.3101$Dv2.3073@newsread2.news.pas.earthlink.net>
Source record: 97578

Hello everyone,

This is my first post. I'm developing a product that needs a very compact automatic/motorized
telescoping antenna. Something similar to a car power antenna but smaller and more compact. I was wondering if in anyone's antenna experience you've ever run across something like that? If so, could someone please direct me to where I could find such a thing?

Thanks,
Jonathan B.

4907. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 20:25:35 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4065e3a2_1@corp.newsgroups.com>
Source record: 97579

Richard Clark wrote:
> The plural "you" is inclusive, which is still a miss-attribution.
> This compounds the error.

Not necessarily, Richard. I can say to an Oklahoma State basketball player, "You won your last game", even though he sat on the bench the entire game and didn't score any points. All members of the same team are guilty by association if not by actions.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4908. Re: Reactive musings

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 20:38:32 UTC
From: richardharrison@webtv.net
Message-ID: <24985-4065E648-14@storefull-3253.bay.webtv.net>
Source record: 97580

Tom Bruhns wrote:
"Minimum reactance is obviously the complex conjugate of that (Rho)."

Fine, but from Terman`e Fig. 4-7 on page 96 of his 1955 edition it appears reactance is maximum nearly everywhere except at 1/4-wave intervals starting at 1/4-wave back from the antenna tip. It flips from inductive to capacitive or vice versa abruptly at these resonant points. Phase jumps 180-degrees at each minimum as shown in Fig.4-7b, on page 96.

Terman says on page 94 of his 1955 edition:
"When the load impedance does not equal the characteristic impedance, the phase of the resulting line voltage (or current) then oscillates around the phase of the voltage (or current) of the incident wave, as illustrated in Fig. 4-5. The phase shift under these conditions tends to be concentrated in regions where the voltage (or current) goes through a minimum; this is increasingly the case as the reflected wave approaches equality with the incident wave."

Terman refers behavior of antennas to this transmission line behavior. The standing wave has loss in an antenna as in a lossy transmission lline, but loss in an antenna includes radiation in addition to loss from conversion to heat. At the open-circuit end of a radiating element, there is a reflection due to the abrupt impedance change at the antenna tip. Maximum SWR must occur at the antenna tip.

On page 97, Terman says:

S = 1+absolute Rho / 1-absolute Rho
S = SWR
Rho = reflection coefficient

or

Absolute refl;ection coefficient = S-1 / S+1

Terman says:
"This relationship is illustrated graphically in Fig. 4-9."

Fig. 4-9 shows SWR=1 when the absolute value of Rho=0 (no reflection), and SWR=20 when the absolute value of Rho=0.88.

In the case of an open circuit antenna tip, Rho must approach 1.0 unless the tip is located near ground on an antenna such as an inverted Vee, for example, which has its tips near the earth. Capacitive coupling may account for continuation of current to some extent through the gap.

Terman says on page 98:
"The expression "Transmission-line impedance" applied to a point on a transmission line signifies the vector ratio of the line voltage to line current at that particular point. This is the impedance that would be obtained if the transmission line were cut at the point in question, and the impedance looking toward the load were measured on a bridge."

The impedance is high at an antenna tip and low 1/4-wave back from the tip. Impedance is a voltage to current ratio. Voltage is high where impedance is high. Current is low where voltage is high, and vice versa.

Edmund A. Laport in "Radio Antenna Engineering" shows a use for the antenna Q number to determine if the support insulators for a horizontal dipole with a shunt (delta) center feed is likely to break down from too-high voltage.

Current is sinusoidal, starting from the virtual (full 1/4-wave from the feed) tip end, that is to ignore the missing 5% or so for end effects, and to start the sine distribution at where the tip end would be had the antenna not been discounted. Maximum current is at the center of the dipole. Maximum current departs from sinusoidal distribution within about plus or minus 10% from the middle of the dipole, but it`s no big deal.

"---the voltage to ground at the end of a dipole Vm will be QVa/2, where Va is the balanced voltage applied to the central feed point. Va=IaZa, the the antenna current at the feed point times the feed point impedance."

The balanced antenna driving voltage in Ed`s example on page 241 is:
Va=IaRa=7.25x95=690 volts rms unmodulated.
The potential from one end of the dipole to ground is then:
Vend=QVa/2=3950 volts
Obviously, Q in the calculation was 11.44
This 3950 volts is the working potential for strain insulators which will support the dipole. To allow for 100% amplitude modulation, this value must be doubled.

Q is important as the multiplication factor for the antenna feedpoint voltage to find what voltage is to be expected at the open-circuit end of an antenna element.

Best regards, Richard Harrison, KB5WZI

4909. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 20:55:52 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4065eab0$1_1@corp.newsgroups.com>
Source record: 97581

Tom Bruhns wrote:
> Ah, we started out with exact geometric relationships that defined
> precise points, and now we're down to 20% accuracy being OK.

Nope, we started out with a simple rule-of-thumb and here it is:

> Originating the thread, alhearn wrote:
>> Why does the reactance peak occur slightly earlier than
>> half-wavelength?

I responded:
> Since the monopole is purely resistive around 1/4WL and
> around 1/2WL, i.e. the reactance is zero at those two
> points, it is simply impossible for it to be be any
> other way.

Sure looks like a simple relatively innocent rule-of-thumb to me.
Absolutely nothing said about exact geometric relationships that
define precise points. You then caused the thread to wander in
the direction of 0.0000000003 accuracy while I was thinking 20%.

I've looked back over my postings and I didn't explicitly state
what I was thinking. I thought it was implicit but I didn't explain my
differentiation between the value of maximum reactance for a dipole Vs
the value of maximum reactance for the SWR circle. My rule-of-thumb is
that they are close enough to being the same point, that for ballpark
conceptual visualization, they can be thought of as being the same point.
I apologize for not being clear on that point. It took me some time to
realize that extreme accuracy was the cornerstone of your argument
against my rule-of-thumb statements.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4910. Re: I NEED YOUR HELP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 21:02:07 UTC
From: "J. Yazel" <jyazel@netset.com>
Message-ID: <srqb6093v1d0lg7t4othdl09ud1fq6076d@4ax.com>
Source record: 97582
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,tnn.radio.a

On Fri, 26 Mar 2004 14:37:05 -0700, "Gary C. Cash" <cash@in-tch.com> wrote:

>TO ALL RADIO AMATEURS:
>
>I, ALONG WITH A FRIEND OF MINE, W7ARO (Ed Bodenberger), ARE TRYING TO
>COMPILE A LIST OF AMATEUR RADIO OPERATORS AND THEIR CALLSIGNS FOR HISTORICAL
>PURPOSES. ALL OF THE FOLLOWING NAMES ARE THOSE OF SILENT KEYS FOR WHICH WE
>HAVE NO CALLSIGN AVAILABLE AND ALL ARE FROM MONTANA. IF YOU HAVE AT SOMETIME
>WORKED ANY OF THESE INDIVIDUALS AND HAVE RECORD OF A CALLSIGN YOU RESPONSE
>WOULD BE GREATLY APPRECIATED.
>
>TOM GIBSON
>HAROLD PETERSON
>ED BINGLER
>RON WRIGHT
>BILL MONEYSMITH
>PHIL HAGMAN
>OSCAR RICE
>
>73's
>GARY
>WQ7S
>cash@in-tch.com
> ==

Hi Gary,

I can't help you yet, but in the meantime, please don't use
all capital letters. It is considered to be shouting.

Thanks and 73s.

Jack W8RAG

4911. Re: Testing and tuning mobile antennas - GOT IT!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 22:23:33 UTC
From: pgardella@yahoo.com
Message-ID: <57d04feb.0403271423.78e67e19@posting.google.com>
Source record: 97583

There is a reason why people post on usenet. They get answers.

And Steve, you have solved a years worth of puzzling and tweaking.
The SWR was the same with or without an antenna. The antenna
is bad. From the PL259 to the antenna I get no connectivity.
I just tested it with a VOM.

Why is it that the simple things are the last things you check.

Now does anyone know how to take a UHV-4 apart? ;)

73,
Patrick N3EO

" Stephen Cowell" <scowell@sbcglobal.net> wrote in message
news:<%G79c.11221$Ag7.1628@newssvr22.news.prodigy.com>...
> "Patrick Gardella" <pgardella@yahoo.com> wrote in message
> news:57d04feb.0403251426.7a897168@posting.google.com...
> > Thanks, Doc.
> >
> > I don't have an antenna analyzer, so I can't check the resonant
> > freq that way. I was relying on an SWR meter (my shack one).
> > Nothing at all changes when I adjust the antenna. SWR doesn't
> > move. I may try to borrow an analyzer from someone to check
> > that out.
> >
> > The mount and cable are fine. Just got a new 2m/70cm dual
> > band antenna to use until I can get the UHV-4 working.
> > It has a nice SWR of around 1.3 on 2m.
> >
> > On the UHV-4 antenna, I can't get below an SWR on 2m of
> > around 5 or 6, even though it's supposed to be ground
> > independant (1/2 wavelength). I can't adjust the 2m/70cm
> > at all anyway. It's fixed.
>
> Verify that the screw-off connector (NMO or 259) is actually
> making contact... what you're describing (super high swr on
> HF, high swr on 2m) points to a piece of unterminated coax
> with no antenna on the end! Try reading swr without the UHV4
> connected... same reading? Bad connection...
> __
> Steve
> KI5YG
> .

4912. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 23:13:50 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <OUn9c.112370$po.789185@attbi_s52>
Source record: 97584

Cecil, as an engineer of a few years experience you should know that a scientist can never be allowed to build a bridge ... it will never be finished because you can never close the flex seams that are used for thermal expansion/contraction. While engineers finish the job by getting close enough to walk/drive off.

In a more general tone for the general reader of the list. All engineering/science deals with tolerances. Engineers accept close enough to specifications. Scientists want to understand why another significant digit after the decimal point is not relevant!! :-0

Deacon Dave, W1MCE

I've managed both engineers and applied scientists in my 40+ years of engineering design. Both disciplines have much to offer.

+ + +

Cecil Moore wrote:

> Tom Bruhns wrote:
>
>> Ah, we started out with exact geometric relationships that defined
>> precise points, and now we're down to 20% accuracy being OK.
>
>
> Nope, we started out with a simple rule-of-thumb and here it is:
>
>> Originating the thread, alhearn wrote:
>>
>>> Why does the reactance peak occur slightly earlier than
>>> half-wavelength?
>
>
> I responded:
>
>> Since the monopole is purely resistive around 1/4WL and
>> around 1/2WL, i.e. the reactance is zero at those two
>> points, it is simply impossible for it to be be any
>> other way.
>
>
> Sure looks like a simple relatively innocent rule-of-thumb to me.
> Absolutely nothing said about exact geometric relationships that
> define precise points. You then caused the thread to wander in
> the direction of 0.0000000003 accuracy while I was thinking 20%.

>
> I've looked back over my postings and I didn't explicitly state
> what I was thinking. I thought it was implicit but I didn't explain my
> differentiation between the value of maximum reactance for a dipole Vs
> the value of maximum reactance for the SWR circle. My rule-of-thumb is
> that they are close enough to being the same point, that for ballpark
> conceptual visualization, they can be thought of as being the same point.
> I apologize for not being clear on that point. It took me some time to
> realize that extreme accuracy was the cornerstone of your argument
> against my rule-of-thumb statements.

4913. Re: Testing and tuning mobile antennas - GOT IT!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 23:22:35 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <%0o9c.107995$1p.1537796@attbi_s54>
Source record: 97585

Patrick Gardella wrote:

> There is a reason why people post on usenet. They get answers.
>
SNIP
>
> Why is it that the simple things are the last things you check.

SNIP ... Wrong comment!! The Problem item is ALWAYS the last thing you check!!! I've retired from engineering which included a four year sojourn into professional photography. My medium format camera is/was defective. I check and replaced the battery that runs the shutter. Still defective so off to the repair shop. I received a call from the repair shop yesterday, Friday, describing the defect and requesting approval to repair. ???Are you ready??? The replacement battery was defective!!!!

I'm red faced!! I'm also $85 poorer for the want of a $3 lithium battery :-) or :-(

Moral[s] to the story: It's always the last thing ... It's always the simplest thing ... It's always the most embarassing thing ... etc.

W1MCE

4914. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 23:30:32 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40660ef2_5@corp.newsgroups.com>
Source record: 97586

Dave Shrader wrote:
> Cecil, as an engineer of a few years experience you should know that a
> scientist can never be allowed to build a bridge ... it will never be
> finished because you can never close the flex seams that are used for
> thermal expansion/contraction. While engineers finish the job by getting
> close enough to walk/drive off.

There's a dirty little engineering secret in there, Dave. If you don't give the engineer a budget and a deadline, he will keep on improving his design forever. It's the operations (profit) arm of a company that forces the engineer to give up and say it's close enough. Engineers are just low-paid scientist wanabees. If engineers had the same dollar/time budget as the scientists, you wouldn't be able to tell the difference in them except maybe in the level of performance. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4915. Re: Testing and tuning mobile antennas - GOT IT!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 23:34:10 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40660fcb$1_5@corp.newsgroups.com>
Source record: 97587

Dave Shrader wrote:
> Moral[s] to the story: It's always the last thing ...

It's a no-brainer, Dave. When one diagnoses the problem, one stops
looking. One would be stupid to continue after the "last thing". :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4916. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 23:37:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eq3c609q9d8rut3kvbknqtkcrgnv1dd6vq@4ax.com>
Source record: 97588

On Sat, 27 Mar 2004 14:25:35 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Richard Clark wrote:
>> The plural "you" is inclusive, which is still a miss-attribution.
>> This compounds the error.
>
>Not necessarily, Richard.

Necessarily. Your obfuscation compounds the error further.

4917. Re: Testing and tuning mobile antennas - GOT IT!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 23:39:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qv3c60tel53mlalqvdok3c1notapu30ovv@4ax.com>
Source record: 97589

On 27 Mar 2004 14:23:33 -0800, pgardella@yahoo.com (Patrick Gardella) wrote:

>Now does anyone know how to take a UHV-4 apart? ;)

Hi Patrick,

Before you do that (what would you fix?); confirm your reading with a load in its place (terminate the connection).

73's
Richard Clark, KB7QHC

4918. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-27 23:40:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4066113a$1_5@corp.newsgroups.com>
Source record: 97590

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>
>>Richard Clark wrote:
>>>The plural "you" is inclusive, which is still a miss-attribution.
>>>This compounds the error.
>>
>>Not necessarily, Richard.
>
> Necessarily. Your obfuscation compounds the error further.

Foxnews reports that you contradicted yourself under oath. Why
should we bother paying attention to anything you have to say?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4919. Re: Testing and tuning mobile antennas - GOT IT!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 01:11:02 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <GCp9c.2661$Ju6.2348@newssvr24.news.prodigy.com>
Source record: 97591

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:qv3c60tel53mlalqvdok3c1notapu30ovv@4ax.com...
> On 27 Mar 2004 14:23:33 -0800, pgardella@yahoo.com (Patrick Gardella)
> wrote:
>
> >Now does anyone know how to take a UHV-4 apart? ;)
>
> Hi Patrick,
>
> Before you do that (what would you fix?); confirm your reading with a
> load in its place (terminate the connection).

Glad to hear my psychic powers are still up to snuff... :)

But make sure that the connection is working before
you take the antenna apart... you may be able to bend
a spring (NMO) or tweak some contact leaves (259)
and get the thing working right! Sometimes connectors
have thread problems that prevent them from bottoming
properly when screwed on.... check all these things.
Make sure there's no little piece of plastic over the
important bits, stuff like that. Check for a broken center
conductor... trunk lip mounts have been known to
do this to coax, and the bigger antenna may be pulling
the connection apart.

--
Steve
KI5YG
.

4920. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 01:15:07 UTC
From: Lloyd Mitchell <lloydm75@hotmail.com>
Message-ID: <9Up9c.23061$fl6.14748@bignews1.bellsouth.net>
Source record: 97595

Try loading it thru a tuner and let us know !!

Go for it John!

Mitch KD4HTW

"John Smith" <pani@yahoo.com> wrote in message
news:c44kl2$2d1a24$1@ID-225206.news.uni-berlin.de...
> Can I use a long wire at 6m with a random wire antenna tuner?
> The wire is about 1/4 mile long, and off the ground about 6 foot,
> (old electrified fence line on top of a fence)
> Any Idea what the pattern would be? or if it would work?
>
> Thanks
>
>

4921. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 01:16:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bh9c605ov38lahqv90g92rgcgdgi6suddu@4ax.com>
Source record: 97592

On Sat, 27 Mar 2004 13:28:33 -0600, "John Smith" <pani@yahoo.com>
wrote:

>Can I use a long wire at 6m with a random wire antenna tuner?
>The wire is about 1/4 mile long, and off the ground about 6 foot,
>(old electrified fence line on top of a fence)
>Any Idea what the pattern would be? or if it would work?
>
>Thanks
>

Hi John,

Well at least we don't need to preface this with it wouldn't be worth
the effort (it's already strung).

Basically you will see about 15dB gain along its axis, maybe 2dB
broadside and every value in between (including negative values) as
you box the compass. When modeled, it gives the picture of a
hedge-hog.

There are sooooo many lobes you are bound to see at least dipole
performance in any direction.

73's
Richard Clark, KB7QHC

4922. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 01:18:57 UTC
From: "R. Steve Walz" <rstevew@armory.com>
Message-ID: <406628A1.31E4@armory.com>
Source record: 97593
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jan Panteltje wrote:
>
> On a sunny day (Sat, 27 Mar 2004 06:40:02 GMT) it happened "R. Steve Walz"
> <rstevew@armory.com> wrote in <40652261.DAC@armory.com>:
>
> >But everyone knows that if Jerusalem goes, Mecca, Medina, Teheran,
> >Islamabad and a half dozen other Moslem cities get nuked.
> When I look at hthis statement closer, you see that now we have
> lost Baghdad, and if teh US 'frees' ahum more Islam countries z(say keeps
> pushing Iran, the currwent CIA operations in Siria, everytime the balance
> for a Israeli targets for a 'strike back' decreases.
> Lowwer threshold.
> People who have nothing to lose do NOT go by any rules.

Their lives are still important to most of them, the number who become
suicidal over political causes is actually rather small. If we simply
blew the fuck out of whatever family home and neighborhood that the
latest suicide bomber came from, these attacks would stop. Most of
the allure to brainwashing kids to carry bombs is lost when their folks
contemplate retaliation directly upon their own head. The Russians
have learned how to deal with Arabs, ask them! Promising and then
carrying out the napalming of errant neighborhoods without any
apology whatsoever would end this in nothing flat. There's absolutely
nothing whatsoever wrong with genocide if it is not intended as such,
as with the Nazi's, but incidental to the purpose, as with Eisenhower.
Always make it strictly conditional, if you do this, we will do more
of that, and we will always escalate ten-fold and upon civilians!!!
A people is utterly responsible for those who lead and represent them
and how they do so, even down to their very children!

> IMO Bush Jr want, before he leaves offcide, a worldwide fire started.
> This to help his weaopon producing friends.
> Same as Vietnam was for no reason at all....
> So he may light middle east, China Taiwan, or both, or something else.
> Here is a mirror for the US.
> Its ugly.

Agreed, re: Bush at alia, but there are many others who know better,
which was how Vietnam stopped. On the other hand, we need weapons,
we simply need to use them a bit differently.

> But on the other hand, humanity has always been that way.
> The beauty in it is it makes the species strong, PROVIDED there are
> survivers.

Nawh, I don't buy it, our nature depends far more on culture now
than genetics. It doesn't matter whether a suicide bomber is
a congenital idiot.

> But it would be more beautiful if people could live in peace.
> We do have, as humans, a brain that alows us to view the world from
> the others perspective.
> Maybe we should put energy into making people use that part.
> JP

It requires, firstly, that we either do away with, or terrify any
who would breach the peace of the world. That requires an ugly but
actually very civilized demeanor, one that will not tolerate disorder
and will not bother apologizing to anyone.

People are not perfected by appealing to them, they are perfected by
their neighbors not tolerating their deviant abusive bullshit anymore.

When they finally always get it worse than they give, they fucking
stop, and not until!

-Steve
--
-Steve Walz rstevew@armory.com ftp://ftp.armory.com/pub/user/rstevew
Electronics Site!! 1000's of Files and Dirs!! With Schematics Galore!!
http://www.armory.com/~rstevew or http://www.armory.com/~rstevew/Public

4923. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 01:23:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b5ac60phe1u5hfinchnbr6eod2a1debsl1@4ax.com>
Source record: 97594

On Sat, 27 Mar 2004 17:40:17 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>> Necessarily. Your obfuscation compounds the error further.
>
>Foxnews reports that you contradicted yourself under oath. Why
>should we bother paying attention to anything you have to say?

Just goes to show ya, you don't know how to spell either.

4924. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 03:41:20 UTC
From: Tom Ring <tarnews@taring.org>
Message-ID: <4066496b$0$435$5cbedd26@news.real-time.com>
Source record: 97596

Nope, it will be much much less than dipole in almost every direction except the direction of the wire. There is only so much energy to go around, and most of it is going in the forward or forward/backward directions, depending on termination of the wire.

"You cannu break the laws of physics, captain!" - Only a half wave dipole will act like a half wave dipole.

tom
K0TAR

Richard Clark wrote:
> On Sat, 27 Mar 2004 13:28:33 -0600, "John Smith" <pani@yahoo.com>
> wrote:
<snip>
>
> Hi John,
>
<snip>
>
> There are sooooo many lobes you are bound to see at least dipole
> performance in any direction.
>
> 73's
> Richard Clark, KB7QHC

4925. RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 04:33:30 UTC
From: Frank Alforo <alforol@dslextreme.com>
Message-ID: <106clev7kl8o861@corp.supernews.com>
Source record: 97597

Anybody have any info the material used on the stealth aircraft to absorb radar signals?

4926. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 04:47:43 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c45ldh$2dm17m$1@ID-225206.news.uni-berlin.de>
Source record: 97598

Standard stuff is a flexible plastic with powdered ferrite to match air, but
attenuate for no reflection, usually too heavy.
Stealth I think used a carbon material that matched air but had loss, also
in little hex patterns to keep the number of reflections high, more loss.
But they would not let us get that close to it 10 foot.
--Dwezil Smith

"Frank Alforo" <alforol@dslextreme.com> wrote in message
news:106clev7kl8o861@corp.supernews.com...
> Anybody have any info the material used on the stealth aircraft to absorb
> radar signals?
>
>

4927. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 04:48:12 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40665964$1_7@corp.newsgroups.com>
Source record: 97599

Frank Alforo wrote:
> Anybody have any info the material used on the stealth aircraft to absorb
> radar signals?

I heard the first thing they ever tried was horsehair.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4928. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 05:00:45 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <7c-dnWFs8KBjxvvdRVn-hQ@comcast.com>
Source record: 97600

On 27-Mar-2004, "John Smith" <pani@yahoo.com> wrote:

> Can I use a long wire at 6m with a random wire antenna tuner?
> The wire is about 1/4 mile long, and off the ground about 6 foot,
> (old electrified fence line on top of a fence)
> Any Idea what the pattern would be? or if it would work?
>
> Thanks

Take it with a grain of salt. Quick and dirty evaluation with EZNEC (Real MININEC ground, #10
Aluminum wire) shows 9.65 dBi at 10 deg elevation, vertical beamwidth of 2.7 deg., and horizontal
beamwidth of 11 deg. in the direction of the unfed end. I had to reduce the length to 1050 ft. to
keep the number of segments below EZNEC's limit of 500. I suspect that the gain and beamwidth would
not be much different at 1320 feet.

I just played around with the length trying to find a resonant point. Seems that as the length is
reduced, the resistive part of the feedpoint impedance changes from around 200 ohms to around 800
ohms while the reactive part is always negative. I placed the source at the bottom of a vertical
wire from ground to the horizontal wire. Other feedpoints might differ. Anyway, it looks like a
fairly high impedance feed.

So if you want a strong signal in the direction of the fence at 10 deg. elevation, it might be a
useful antenna. Other directions will suffer.

Ken Fowler, KO6NO

4929. RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 05:33:24 UTC
From: Dustin <fordman@btc-bci.com>
Message-ID: <Fst9c.159$1a2.102599@news.uswest.net>
Source record: 97601

Hello, I am going to be making some adaptor harnesses for my HT, they are going to have a PL-259 on one end and a SMA male end on the other, my question is are the center conductor's inside the RG-58 and RG-174 the same diameter because I see all the jumper harness's that are available commercially made of RG-174, but when I see DIY pages they are made of RG-58, and I just want to make sure. I read that RG-58 has alot less loss and is cheaper. Thanks

4930. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 05:43:33 UTC
From: Jeremy Salch <salchNOSPAM@tblx.net>
Message-ID: <c45omk$2epiip$2@ID-225834.news.uni-berlin.de>
Source record: 97602

Dustin wrote:

> Hello, I am going to be making some adaptor harnesses for my HT, they are
> going to have a PL-259 on one end and a SMA male end on the other, my
> question is are the center conductor's inside the RG-58 and RG-174 the
same
> diameter because I see all the jumper harness's that are available
> commercially made of RG-174, but when I see DIY pages they are made of
> RG-58, and I just want to make sure. I read that RG-58 has alot less loss
> and is cheaper. Thanks

rg-58 is cheaper.. bigger and has less loss

--
Registered Linux User #346565

4931. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 06:45:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2usc601olmkbot0kes72dpetssmd52imc9@4ax.com>
Source record: 97603

On Sat, 27 Mar 2004 21:41:20 -0600, Tom Ring <tarnews@taring.org>
wrote:

>Nope, it will be much much less than dipole in almost every direction
>except the direction of the wire. There is only so much energy to go
>around, and most of it is going in the forward or forward/backward
>directions, depending on termination of the wire.
>
>"You cannu break the laws of physics, captain!" - Only a half wave
>dipole will act like a half wave dipole.
>
>tom

Hello Major Tom,

Count down, systems on. You haven't modeled have you?

73's
Richard Clark, KB7QHC

4932. Re: Will displacement current form a close loop ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 07:10:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jttc60ddh0clcn4ll5m0kjrui8l4d7cm4n@4ax.com>
Source record: 97604

On 26 Mar 2004 17:47:01 -0800, ieeestd802@yahoo.com (ieee std) wrote:

>Folks:
>
>I have one question. We know normal conductor current form a close
>loop,
>is this also true for displacement current ?

Yes, current does what current is.

>In the following diagram, assume a an b are two long conductor wires,
...
>Does this depend on the shape of abcd ?

Shape has little to do with it except when it comes to becoming a
significant source of linkage or leakage (going around the apparent
"open" circuit).
>
>If displacement current must form a close loop, I think I_c = - I_d
>must true, but is this the case ?

Hi OM,

This falls into the genre of the misapplication of DC/low frequency AC
circuit analysis to systems that are significant in size with relation
to wavelength. If you keep the physical dimension very much smaller
than the electrical dimension, then it will solve just like you
expect.

On the other hand, if the physical dimension is a significant portion
of an electrical wavelength, you will encounter paradoxes if you do
not use more elaborate math. Now, as to the scale of the paradox,
that all depends upon your tolerance to error.

73's
Richard Clark, KB7QHC

4933. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 09:06:55 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <CAw9c.15750$Q45.10237@fed1read02>
Source record: 97605

"Frank Alforo" <alforol@dslextreme.com> wrote in message
news:106clev7kl8o861@corp.supernews.com...
> Anybody have any info the material used on the stealth aircraft to absorb
> radar signals?
>
>

The 297 hits on Google for "radar absorbent material" was information overload? The 3,730 hits for "RF anechoic material" frightened you? And the 70,100 hits for "stealth aircraft design" sent you scurrying here to see if we had anything for you?

At least it's nice to see you doing your homework before Sunday night.

Ed
wb6wsn

4934. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 13:38:17 UTC
From: Annette & LJ Dumas <nettski@worldnet.spinelessspammers.att.net>
Message-ID: <dzA9c.29594$tY6.874161@bgtnsc04-news.ops.worldnet.att.net>
Source record: 97606

The heck with 6 meters, you've got a near-ideal Beverage! Go for 160M!

73

Joe D
N2LJD
"John Smith" <pani@yahoo.com> wrote in message
news:c44kl2$2d1a24$1@ID-225206.news.uni-berlin.de...
> Can I use a long wire at 6m with a random wire antenna tuner?
> The wire is about 1/4 mile long, and off the ground about 6 foot,
> (old electrified fence line on top of a fence)
> Any Idea what the pattern would be? or if it would work?
>
> Thanks
>
>

4935. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 13:38:59 UTC
From: Tom Ring <tarnews@taring.org>
Message-ID: <4066d57d$0$436$5cbedd26@news.real-time.com>
Source record: 97607

Enough so I don't have to model the obvious. I alpha tested 3 different modeling programs for the author in the early 90's, currently own 5 if I remember correctly, have modeled hundreds of yagis, built dozens, and tons of other, non-yagi radiating structures. And designed and built the highest gain 432 antenna ever tested at Central States VHF Conference. :)

If most of the energy is going off the end(s), there can't be much left to go off the sides, therefore it can't perform like a dipole off the sides. Those little spikes are very misleading, and very narrow. Apply an averaging function 2 or 3 degrees wide on the spikes and the nulls, and you'll see a much truer picture.

The physics doesn't lie - antenna patterns are a have to add up to 100% of the input power (ignoring losses). If, picking nice round numbers, 90% is in 5 degrees off the end, then only 10% is available for th.

tom
K0TAR

Richard Clark wrote:

> On Sat, 27 Mar 2004 21:41:20 -0600, Tom Ring <tarnews@taring.org>
> wrote:
>
>
>>Nope, it will be much much less than dipole in almost every direction
>>except the direction of the wire. There is only so much energy to go
>>around, and most of it is going in the forward or forward/backward
>>directions, depending on termination of the wire.
>>
>>"You cannu break the laws of physics, captain!" - Only a half wave
>>dipole will act like a half wave dipole.
>>
>>tom
>
>
> Hello Major Tom,
>
> Count down, systems on. You haven't modeled have you?
>
> 73's
> Richard Clark, KB7QHC

4936. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 15:43:13 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <562dnSuc08RtefvdRVn-hQ@ctc.net>
Source record: 97608

"Dustin" <fordman@btc-bci.com> wrote in message
news:Fst9c.159$1a2.102599@news.uswest.net...
> Hello, I am going to be making some adaptor harnesses for my HT, they are
> going to have a PL-259 on one end and a SMA male end on the other, my
> question is are the center conductor's inside the RG-58 and RG-174 the
same
> diameter because I see all the jumper harness's that are available
> commercially made of RG-174, but when I see DIY pages they are made of
> RG-58, and I just want to make sure. I read that RG-58 has alot less loss
> and is cheaper. Thanks

As the impedance is determined by the ratio of the outer conductor to the
center conductor (for the same insulation between them) the 174 has to have
a smaller center conductor than the 58. RG-58 does have more loss but for
less than 5 feet on two meters I doubt that you will notice it. Probably
not even on 440 mhz . If using the RG-58 try to find some with a stranded
center conductor as much of it seems to be solid wire.

4937. Use 6-meter extension on Icom IC-T90A on 2 meters and 70 CM?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 15:58:49 UTC
From: Darrell Shandrow <nu7i@azboss.net>
Message-ID: <MPG.1aaaac13b22cbc15989682@news.azboss.net>
Source record: 97609

Hi all,

I have the IC-T90A tri-band 6m/2m/70cm HT. Can anyone tell me whether or not it is safe to use the 6m antenna extension on the higher frequencies or whether I really do need to change to the smaller extension when operating on those higher frequencies?

Thanks.

4938. Portable QRP project for blind ham living in apartment.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 16:13:52 UTC
From: Darrell Shandrow <nu7i@azboss.net>
Message-ID: <MPG.1ad0abfe31832bf4989683@news.azboss.net>
Source record: 97612
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.antenna

Portable QRP Project

The purpose of this project is to research, then implement a portable ham station that can be operated by a blind person from an apartment and from other portable locations using either battery power for Field Day and other portable situations or a power supply for primary home operation. There are several ultimate goals as follows:

1. Operate from an apartment with little or no evidence that there's a ham station.
2. Operate the ARRL Field Day contest event and in other portable situations such as another person's house, amateur radio demonstration site or outside the office building at work.

Antennas

The antenna must be stealth or nearly stealth. It must also be usable by a blind person with no special test equipment available and little or no available sighted assistance. This means there must be no tuning requirements that require sight to adjust the antenna or read an SWR meter. Though sufficient performance is required to actually make contacts (we're not looking for a dummy-load here) any and all performance compromises are acceptable to reach the results described in this paragraph.

Radios and Power Requirements

The rig must be QRP to prevent unnecessary RFI and to minimize power consumption during portable operation such as Field Day. An inability to completely use all functions of the radio by a blind person is acceptable, so long as the basics of changing frequencies, listening and transmitting are possible without the need for computer control of the rig. If only basics are possible, an accessible computer control option must be available for fuller operation in a less portable situation.

The following are the goals for the radio and power requirements:
" Extremely portable light-weight radio. Should easily fit in a backpack. Radio will likely be transported on public transportation such as a city bus or carried by way of walking since blind people can't drive automobiles.
" Basic operations of the radio, including QSY, listening and transmitting must be possible without sighted assistance. Full configuration and operation of the radio must be possible with accessible computer control when the radio is not being used in a portable situation.

" Extremely portable, , safe and easy to implement battery power is required. No car batteries or other possible dangers or items that require sighted assistance to set up and maintain. Prefer battery power solution be provided with the radio or as a recognized accessory for the radio within the ham community. Potential miswiring of positive and negative terminals prevent any experimentation; it must be widely known to work out of the box by being connected to the radio.

4939. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 16:20:31 UTC
From: dplatt@radagast.org
Message-ID: <106duqf38gv8l2d@corp.supernews.com>
Source record: 97610

> Hello, I am going to be making some adaptor harnesses for my HT, they are
> going to have a PL-259 on one end and a SMA male end on the other, my
> question is are the center conductor's inside the RG-58 and RG-174 the same
> diameter because I see all the jumper harness's that are available
> commercially made of RG-174, but when I see DIY pages they are made of
> RG-58, and I just want to make sure. I read that RG-58 has alot less loss
> and is cheaper. Thanks

RG-58 has lower loss than RG-174, because RG-58's center conductor is
larger in diameter than RG-174s. You'll need to buy SMA connectors
which are specifically designed for RG-58 - this cable won't fit into
an SMA connector made for RG-174.

Because of its larger diameter, it's also likely to be stiffer than
RG-174. This means that it could put more stress on the HT's SMA
socket, if the harness is pulled or pushed sideways.

The lower loss in RG-58 isn't likely to make a significant amount of
difference for a short harness, at least not at 2-meter frequencies.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4940. Any Suggestions For Relatively Simple & Basic Antenna Modeling Prog's ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 16:25:05 UTC
From: Robert11 <rgsxrose@comcast.net>
Message-ID: <mMydncU_2Jn4YfvdRVn-gw@comcast.com>
Source record: 97611

Hello:

Would like to try some simple antenna modeling.
I truly mean relatively simple and basic.

Anyone care to suggest a very basic modeling program for a true beginner at this ?

Any free ones avail. ?

BTW: I do listening only.

Thanks,
Bob

4941. Re: Cellphones and Bombs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 16:34:13 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <88D9c.2917$pn2.1129@newssvr23.news.prodigy.com>
Source record: 97613
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

"R. Steve Walz" <rstevew@armory.com> wrote in message
news:406628A1.31E4@armory.com...
> Jan Panteltje wrote:
> >
> > On a sunny day (Sat, 27 Mar 2004 06:40:02 GMT) it happened "R. Steve
Walz"
> > <rstevew@armory.com> wrote in <40652261.DAC@armory.com>:
> >
> > >But everyone knows that if Jerusalem goes, Mecca, Medina, Teheran,
> > >Islamabad and a half dozen other Moslem cities get nuked.
> > When I look at hthis statement closer, you see that now we have
> > lost Baghdad, and if teh US 'frees' ahum more Islam countries z(say
keeps
> > pushing Iran, the currwent CIA operations in Siria, everytime the
balance
> > for a Israeli targets for a 'strike back' decreases.
> > Lowwer threshold.
> > People who have nothing to lose do NOT go by any rules.
> -----------------------
> Their lives are still important to most of them, the number who become
> suicidal over political causes is actually rather small. If we simply
> blew the fuck out of whatever family home and neighborhood that the
> latest suicide bomber came from, these attacks would stop.

Like the Palestinian attacks stopped after the Israelis started
doing what you suggest?

--
Steve
KI5YG
.

4942. Re: Any Suggestions For Relatively Simple & Basic Antenna Modeling Prog's ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 16:34:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4066fee2_2@corp.newsgroups.com>
Source record: 97614

Robert11 wrote:
> Hello:
>
> Would like to try some simple antenna modeling.
> I truly mean relatively simple and basic.
>
> Anyone care to suggest a very basic modeling program for a true beginner at
> this ?
>
> Any free ones avail. ?

The free demo version of EZNEC is available for downloading from:

http://www.eznec.com
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4943. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 17:02:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <es0e601ovj0icaprr6117vb93jafncom29@4ax.com>
Source record: 97615

On Sun, 28 Mar 2004 07:38:59 -0600, Tom Ring <tarnews@taring.org>
wrote:

>If most of the energy is going off the end(s), there can't be much left
>to go off the sides, therefore it can't perform like a dipole off the
>sides. Those little spikes are very misleading, and very narrow. Apply
>an averaging function 2 or 3 degrees wide on the spikes and the nulls,
>and you'll see a much truer picture.

The program defaulted to 5 degrees which still presented so many lobes
as to be a pin cushion. The net effect is that aside from axial
gain, off side is still pretty much dipole average. No one really
expects those sharp lobes to actually represent reality except if you
were working EME with an apeture that couldn't see ground. Such deep
nulls of only a couple degrees wide only exist in line of sight.

There's a world of difference between modeling antenna characteristics
and propagation reality.

>
>The physics doesn't lie - antenna patterns are a have to add up to 100%
>of the input power (ignoring losses). If, picking nice round numbers,
>90% is in 5 degrees off the end, then only 10% is available for th.

90% for 10% coverage does not absorb all the gain available; the
multitude of sharp lobes in excess of 2dBi is abundant proof of that.

73's
Richard Clark, KB7QHC

4944. FS: Larsen KD14 half-wave coils (140 - 173 MHz) with BNC connector

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 17:20:18 UTC
From: glapierre@REMOVEeastlink.ca
Message-ID: <40670758.2230385@news.eastlink.ca>
Source record: 97616

I have 4 of these coils, which are part of the Larsen KD 14
150 HW telescoping antenna. I do not have the telescoping antennna
part just the coils. Add up to 44" rod and make your own half wave
antenna between 140 and 173 MHz.
I use one on my 2 meter hand-held and one on my scanner.
I have 4 left over.

Only $10.00 each or $35.00 for the lot plus shipping.

Pic avaliable.

glapierre@REMOVEeastlink.ca

4945. Re: Any Suggestions For Relatively Simple & Basic Antenna Modeling Prog's ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 17:29:02 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <F4OdneHUEdnClvrd4p2dnA@comcast.com>
Source record: 97617

On 28-Mar-2004, "Robert11" <rgsxrose@comcast.net> wrote:

> Hello:
>
> Would like to try some simple antenna modeling.
> I truly mean relatively simple and basic.
>
> Anyone care to suggest a very basic modeling program for a true beginner at
> this ?
>
> Any free ones avail. ?

Antenna modeling for "listening only" is probably overkill but try the EZNEC Demo at:
http://www.eznec.com.

Ken Fowler, KO6NO

4946. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 18:03:29 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <bq4e6055qtnn5akr6st7k1ih7sqgpjsoep@4ax.com>
Source record: 97618

Use RG-174. Finding an inexpensive SMA connector for RG-58 is difficult.

Jim

"Dustin" <fordman@btc-bci.com>
shared these priceless pearls of wisdom:

->Hello, I am going to be making some adaptor harnesses for my HT, they are
->going to have a PL-259 on one end and a SMA male end on the other, my
->question is are the center conductor's inside the RG-58 and RG-174 the same
->diameter because I see all the jumper harness's that are available
->commercially made of RG-174, but when I see DIY pages they are made of
->RG-58, and I just want to make sure. I read that RG-58 has alot less loss
->and is cheaper. Thanks
->
->

Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

4947. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 18:04:52 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <tr4e605ff8iopvfg5n5v96vru396af6kqu@4ax.com>
Source record: 97519

Why would you do that? Solid has less loss. If you are worried about it flexing too much and work-hardening (or breaking) the center conductor, use a strain relief of shrink sleeving at both ends.

Jim

"Ralph Mowery" <rmowery@ctc.net>
shared these priceless pearls of wisdom:

- If using the RG-58 try to find some with a stranded
->center conductor as much of it seems to be solid wire.
->
->

Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

4948. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 18:39:10 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <iZE9c.25287$JO3.26980@attbi_s04>
Source record: 97520

Wait a flippin minute, Cecil!!

Cecil Moore wrote:

SNIP

>
> There's a dirty little engineering secret in there, Dave. If you don't
> give the engineer a budget and a deadline, he will keep on improving his
> design
> forever. It's the operations (profit) arm of a company that forces the
> engineer
> to give up and say it's close enough.

SNIP

I served as Chief Engineer on a major component of the USAF MX Missile {AKA Peacekeeper S-118] and I'm proud to claim that successful engineering includes meeting all requirements of the following equally weighted factors:

1) Meet ALL specifications.
2) Meet them on time.
3) Meet them below budget.

In six years I never requested a waiver to specification, delivered all assets to the USAF typically 30 to 60 days ahead of schedule and completed all engineering tasks at 96% to 97% of authorized budget.

Now, to give Cecil his due, the VP of Operations was intensely involved because the contract incentives, increased profit, was based on ALL THREE of these criteria.

Moral: Engineering includes technical, schedule and profit performance. Science advances the knowledge in technical fields while the cost and schedule issues are subordinate to the profit motive.

Deacon Dave, W1MCE

4949. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 18:39:54 UTC
From: dplatt@radagast.org
Message-ID: <106e6vq5r7f4k73@corp.supernews.com>
Source record: 97521

>Why would you do that? Solid has less loss. If you are worried about it
>flexing too much and work-hardening (or breaking) the center conductor, use a
>strain relief of shrink sleeving at both ends.

To my mind, the stiffer the cable, the more stress it's going to put
on the HT's SMA jack. Stiffening the cable via heatshrink tubing is
only going to make this worse, by increasing the moment arm.

SMA jacks on some HTs (e.g. the VX-5) are rather notorious for working
loose, even under the modest stress and strain of a rubber-duck
antenna. IMHO, SMA is a fine connector for intra-cabinet connections
and fixed-station applications, but it's less than ideal for antenna
connections on handhelds.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4950. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 18:48:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1c7e605m8pk0udqo7brnjsr4r0fkbainbf@4ax.com>
Source record: 97523

On Sun, 28 Mar 2004 14:39:58 -0500, "Ralph Mowery" <rmowery@ctc.net>
wrote:
> then the wire will work harden and break

Copper?

4951. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 18:50:59 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <n8F9c.25055$K91.72048@attbi_s02>
Source record: 97524

A major portion of 'stealth design' is to deflect the radar signal in directions away from the transmitter [i.e. deflect the echo]. Hence, the many flat panels on the F-117.

A secondary feature of the design is absorbent material.

A third feature is the hex filter designs in the windows/turbine aperture etc [allow rf in but keep it from getting out].

But, your basic absorbing material is found in numerous graphite epoxies whose composition is classified.

You may find useful information on basics by checking out 'space cloth'. Space cloth is used for radar dummy loads and is available in Zo that provide VSWRs from 5:1 to 1:1. At 1:1 there is no reflection.

Frank Alforo wrote:

> Anybody have any info the material used on the stealth aircraft to absorb
> radar signals?
>
>

4952. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 18:55:40 UTC
From: dplatt@radagast.org
Message-ID: <106e7tcolt77477@corp.supernews.com>
Source record: 97525

In article <1c7e605m8pk0udqo7brnjsr4r0fkbainbf@4ax.com>,
Richard Clark <kb7qhc@comcast.net> wrote:

>> then the wire will work harden and break
>
>Copper?

That's my experience, and a few minutes of Google-searching the Web comes up with numerous references stating that copper does suffer from work hardening after cold-deformation. The extent depends on the purity of the copper and on what other metals it has been alloyed with. [Lead is apparently one of the few metals not subject to work hardening.]

This process can be reversed by annealing, but that's a bit tricky to do if the copper is already part of a coaxial cable :-)

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4953. Re: Any Suggestions For Relatively Simple & Basic Antenna Modeling Prog's ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 19:10:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c477v9dba1@titan.btinternet.com>
Source record: 97526

For modelling and performance of particular types of simple antennas such as magloops, small receiving loops, loaded verticals, inverted-L's, tuning units, etc., search amongst the programs available from the following website.

There's a brief one-line description alongside each program listed.

All explained except radiation patterns which everybody knows anyway.

Download in a few seconds and run immediately. No unzipping inconvenience.

All are free gifts. High quality guaranteed.
--
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

4954. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 19:33:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f89e60tkddsng89g1ttkbdgj0vq1clgc5h@4ax.com>
Source record: 97527

On Sun, 28 Mar 2004 18:55:40 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>copper does suffer from
>work hardening after cold-deformation.

For an HT application?

> The extent depends on the
>purity of the copper

Generally 99.95% or better for simple wire. Copper pipe is another
matter, but for an HT application?

>and on what other metals it has been alloyed
>with. [Lead is apparently one of the few metals not subject to work
>hardening.]

And the lead amalgam (with tin) is the MOST likely to be found - for
an HT application.

Work hardening would require a severe kink, about the same radius of
the wire. The insulation is going to limit that bend to easily ten
times that, and typical practice to 100's of times that. And as for
repetitive (the work part of the hardening) stress, maybe for an
automatic door opener, but for an HT application? The topic
application is for jumper connections where the SMA connector is far
more likely to fail.

C'mon, now guys, let's worry about what is likely to break, not about
everything that might fail. May as well take out an
asteroid-collision policy.

73's
Richard Clark, KB7QHC

4955. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 19:39:58 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <9KudnYbR5ePggfrdRVn-tw@ctc.net>
Source record: 97522

"Jim Weir" <jim@rst-engr.com> wrote in message
news:tr4e605ff8iopvfg5n5v96vru396af6kqu@4ax.com...
> Why would you do that? Solid has less loss. If you are worried about it
> flexing too much and work-hardening (or breaking) the center conductor,
use a
> strain relief of shrink sleeving at both ends.
>
>

For less than 10 feet there is no noticable differance in the loss of a solid vers stranded center conductor for the same size coax. When used for jumpers that are going to be moved alot such as with a HT then the wire will work harden and break.. Maybe in the middle and not at the very end near the connector. More than likely it will be about 4 to 6 inches from the HT end.

4956. Re: Will displacement current form a close loop ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 19:45:37 UTC
From: ieeestd802@yahoo.com
Message-ID: <43908fc6.0403281145.643221aa@posting.google.com>
Source record: 97528

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<jttc60ddh0clcn4ll5m0kjrui8l4d7cm4n@4ax.com>...
> On 26 Mar 2004 17:47:01 -0800, ieeestd802@yahoo.com (ieee std) wrote:
>
> >Folks:
> >
> >I have one question. We know normal conductor current form a close
> >loop,
> >is this also true for displacement current ?
>
> Yes, current does what current is.
>
> >In the following diagram, assume a an b are two long conductor wires,
> ...
> >Does this depend on the shape of abcd ?
>
> Shape has little to do with it except when it comes to becoming a
> significant source of linkage or leakage (going around the apparent
> "open" circuit).
> >
> >If displacement current must form a close loop, I think I_c = - I_d
> >must true, but is this the case ?
>
> Hi OM,
>
> This falls into the genre of the misapplication of DC/low frequency AC
> circuit analysis to systems that are significant in size with relation
> to wavelength. If you keep the physical dimension very much smaller
> than the electrical dimension, then it will solve just like you
> expect.
>
> On the other hand, if the physical dimension is a significant portion
> of an electrical wavelength, you will encounter paradoxes if you do
> not use more elaborate math. Now, as to the scale of the paradox,
> that all depends upon your tolerance to error.
>
> 73's
> Richard Clark, KB7QHC

Thanks for your reply.

Do you mean that for low frequency AC circuit analysis, we can assume that
I_c = - I_d with some approximation ?

4957. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 19:45:47 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40672bc4$1_5@corp.newsgroups.com>
Source record: 97530

Dave Shrader wrote:

> Wait a flippin minute, Cecil!!
>
> Cecil Moore wrote:
>> There's a dirty little engineering secret in there, Dave. If you don't
>> give the engineer a budget and a deadline, he will keep on improving
>> his design
>> forever. It's the operations (profit) arm of a company that forces the
>> engineer to give up and say it's close enough.
>
> 1) Meet ALL specifications.
> 2) Meet them on time.
> 3) Meet them below budget.
>
> Now, to give Cecil his due, the VP of Operations was intensely involved
> because the contract incentives, increased profit, was based on ALL
> THREE of these criteria.

Heh, heh, Dave, I think you just proved my point. :-) If you had no time
or budget constraints, would you ever be 100% satisfied with any design?
I wouldn't.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4958. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 19:49:15 UTC
From: CW <clinton.magers@comcast.net>
Message-ID: <d_KdnVkchOtWtvrdRVn-hg@comcast.com>
Source record: 97529

Yes.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:1c7e605m8pk0udqo7brnjsr4r0fkbainbf@4ax.com...
> On Sun, 28 Mar 2004 14:39:58 -0500, "Ralph Mowery" <rmowery@ctc.net>
> wrote:
> > then the wire will work harden and break
>
> Copper?

4959. Re: Will displacement current form a close loop ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 20:22:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <chbe605a1f77umrmkmolt09dmmbcpuglv3@4ax.com>
Source record: 97531

On 28 Mar 2004 11:45:37 -0800, ieeestd802@yahoo.com (ieee std) wrote:
>Do you mean that for low frequency AC circuit analysis, we can assume that
>I_c = - I_d with some approximation ?

Hi OM,

Replace all nomenclature for currents with actual, physical,
representative capacitors, Assign a frequency, determine the
reactances, and solve as you would for any simple circuit.

I resist a more direct answer simply because the ASCII graphics
illustrates an ambiguous circuit:
what is the purpose of ï¿½ for AC?
why do you presume a current between two positive potentials?
are you presuming a star current flow topology
(a to b; a to c; a to d; and so forth)?

The net result is that some of your solutions negate your premises.

Something tells me you are working in the large wavelength dimension,
not the small, lumped component dimension (there are folks here too
that have similar problems). One does not normally associate
"displacement current" with linked loops as most of the electromotive
force is found in the shared fields. Beyond that, it is a matter of
surface area and separation distance if you want to do capacitive
coupling, however such current will require significant wavelength
dimensionality, otherwise it will average to 0. You are not going to
capacitively couple to the opposite loop without a return path that
has another circuit element or some phase difference enforced through
an undisclosed geometry or wavelength.

Drawing back, you seem to ignore the field coupling, and yet it will
have an impact on the displacement current (bucking it or aiding it)
which means your analysis is incomplete - you need more current
descriptions. Hence we are on the road to that more complex math.

73's
Richard Clark, KB7QHC

4960. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 21:31:49 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <rnge60tlpku5jbb0ri5r79trqgnclv6b7v@4ax.com>
Source record: 97532

On Sun, 28 Mar 2004 07:38:59 -0600, Tom Ring <tarnews@taring.org>
wrote:

>Enough so I don't have to model the obvious. I alpha tested 3 different
>modeling programs for the author in the early 90's, currently own 5 if I
>remember correctly, have modeled hundreds of yagis, built dozens, and
>tons of other, non-yagi radiating structures. And designed and built
>the highest gain 432 antenna ever tested at Central States VHF
>Conference. :)
>
>If most of the energy is going off the end(s), there can't be much left
>to go off the sides, therefore it can't perform like a dipole off the
>sides.

Suppose you modeled it as a longish dipole? One leg is a quarter wave
at six meters, the other leg is an odd number of 6-meter quarter
waves, stretching out a quarter mile?

Bob
k5qwg

> Those little spikes are very misleading, and very narrow. Apply
>an averaging function 2 or 3 degrees wide on the spikes and the nulls,
>and you'll see a much truer picture.
>
>The physics doesn't lie - antenna patterns are a have to add up to 100%
>of the input power (ignoring losses). If, picking nice round numbers,
>90% is in 5 degrees off the end, then only 10% is available for th.
>
>tom
>K0TAR
>
>Richard Clark wrote:
>
>> On Sat, 27 Mar 2004 21:41:20 -0600, Tom Ring <tarnews@taring.org>
>> wrote:
>>
>>
>>>Nope, it will be much much less than dipole in almost every direction
>>>except the direction of the wire. There is only so much energy to go
>>>around, and most of it is going in the forward or forward/backward
>>>directions, depending on termination of the wire.
>>>
>>>"You cannu break the laws of physics, captain!" - Only a half wave
>>>dipole will act like a half wave dipole.

>>>
>>>tom
>>
>>
>> Hello Major Tom,
>>
>> Count down, systems on. You haven't modeled have you?
>>
>> 73's
>> Richard Clark, KB7QHC

4961. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 21:48:46 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <5nhe60lglhtea082k9o3hdu13eqbu47j4o@4ax.com>
Source record: 97533

On Sun, 28 Mar 2004 18:55:40 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>In article <1c7e605m8pk0udqo7brnjsr4r0fkbainbf@4ax.com>,
>Richard Clark <kb7qhc@comcast.net> wrote:
>
>>> then the wire will work harden and break
>>
>>Copper?
>
>That's my experience, and a few minutes of Google-searching the Web
>comes up with numerous references stating that copper does suffer from
>work hardening after cold-deformation. The extent depends on the
>purity of the copper and on what other metals it has been alloyed
>with. [Lead is apparently one of the few metals not subject to work
>hardening.]
>
>This process can be reversed by annealing, but that's a bit tricky to
>do if the copper is already part of a coaxial cable :-)

With some experience working with drawing wire (and I don't mean
artistically) I can confirm that most metals, copper and silver
included, tend to work harden. OFHC copper is better than most copper
alloys.

Gold is one of the few that does not, which is why certain types of
jewelry and leaf can only be made with reasonably pure gold.

Annealing at the right temperature for the particular metal of alloy
will make it malleable again, but those temperatures are not
compatible with plastic or rubber insulations.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

4962. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 21:52:55 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <k2ie60p6c16ms2mdq8kib13h67nf4iklu3@4ax.com>
Source record: 97534

On Sun, 28 Mar 2004 19:33:36 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>C'mon, now guys, let's worry about what is likely to break, not about
>everything that might fail. May as well take out an
>asteroid-collision policy.
>
True.

But a couple of weeks ago, March 18th, an asteroid about 100 feet in
diameter missed the Earth by 26,500 miles.

Better pay up the premiums on that policy.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

4963. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 22:01:27 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403281401.4fafb698@posting.google.com>
Source record: 97535

"John Smith" <pani@yahoo.com> wrote in message
news:<c44kl2$2d1a24$1@ID-225206.news.uni-berlin.de>...
> Can I use a long wire at 6m with a random wire antenna tuner?
> The wire is about 1/4 mile long, and off the ground about 6 foot,
> (old electrified fence line on top of a fence)
> Any Idea what the pattern would be? or if it would work?
>
> Thanks

Sure, it would *work*, but I would rather use something else. The size
of a yagi on 6m is not too big. "appx 9 ft or so elements on average".
I built one from all hard drawn copper tubing, and welded it all
together as one piece. "plumbers delight". I have a torch...
Probably cost me $20 in copper. It will probably smoke any random or
long wire. One reason is my 6m radio is a icom ic-706mk2g. It's prone
to HF images on 6m, if you use an antenna that provides a large HF
signal level in comparison to the 6m level. Trash city on any of my HF
antennas. But you get on the yagi, with it's fairly good attenuation
of HF signals, and it cleans it right up. Also, the beam is rotatable.
The wire would be stuck in 2 directions. Or one of two if you
terminated the antenna at an end.
You can try it, but plan on a beam if you really want decent
performance. A 6m beam is small enough to mount with TV hardware and
rotors. They are real light if you use aluminum. BTW, I'd skip the
simple dipoles and verticals also...Wimpy antennas on 6m compared to a
yagi or quad....:(But also depends on the mode...I work mainly SSB in
the low end. A vertical or dipole will be trounced by my simple 3 el
yagi. Both transmit and receive. I can hear stuff on the beam that is
not there on a vertical or dipole. MK

4964. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 22:01:31 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403281401.4340a277@posting.google.com>
Source record: 97536

"John Smith" <pani@yahoo.com> wrote in message
news:<c44kl2$2d1a24$1@ID-225206.news.uni-berlin.de>...
> Can I use a long wire at 6m with a random wire antenna tuner?
> The wire is about 1/4 mile long, and off the ground about 6 foot,
> (old electrified fence line on top of a fence)
> Any Idea what the pattern would be? or if it would work?
>
> Thanks

Sure, it would *work*, but I would rather use something else. The size
of a yagi on 6m is not too big. "appx 9 ft or so elements on average".
I built one from all hard drawn copper tubing, and welded it all
together as one piece. "plumbers delight". I have a torch...
Probably cost me $20 in copper. It will probably smoke any random or
long wire. One reason is my 6m radio is a icom ic-706mk2g. It's prone
to HF images on 6m, if you use an antenna that provides a large HF
signal level in comparison to the 6m level. Trash city on any of my HF
antennas. But you get on the yagi, with it's fairly good attenuation
of HF signals, and it cleans it right up. Also, the beam is rotatable.
The wire would be stuck in 2 directions. Or one of two if you
terminated the antenna at an end.
You can try it, but plan on a beam if you really want decent
performance. A 6m beam is small enough to mount with TV hardware and
rotors. They are real light if you use aluminum. BTW, I'd skip the
simple dipoles and verticals also...Wimpy antennas on 6m compared to a
yagi or quad....:(But also depends on the mode...I work mainly SSB in
the low end. A vertical or dipole will be trounced by my simple 3 el
yagi. Both transmit and receive. I can hear stuff on the beam that is
not there on a vertical or dipole. MK

4965. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 22:58:37 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <xMI9c.2981$nK4.1726@newssvr23.news.prodigy.com>
Source record: 97537

The condition of the insulators at 6 meters may be a factor.
73
Hank WD5JFR
"John Smith" <pani@yahoo.com> wrote in message
news:c44kl2$2d1a24$1@ID-225206.news.uni-berlin.de...
> Can I use a long wire at 6m with a random wire antenna tuner?
> The wire is about 1/4 mile long, and off the ground about 6 foot,
> (old electrified fence line on top of a fence)
> Any Idea what the pattern would be? or if it would work?
>
> Thanks
>
>

4966. artificial ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 23:00:45 UTC
From: Joseph Fenn <jfenn@lava.net>
Message-ID: <Pine.BSI.4.58.0403281255230.18532@malasada.lava.net>
Source record: 97538

I remember that some types of military vehicles with radioes and useing
whip antennas had a so called "artificial" gnd thing that they threw
out on the surounging area of the vehicle that greatly enhanced
their signal coverage from the whip. I think MFJ made one of those
at one rimw or another too! Would this type gnd be of any benefit
if I am useing inverted dipoles (mostly vertical polarized). I mean
a 40' mast at the center and dual dipoles slopeing down about a 40
degree angle to the end tie points. I do use an all band tuner
(manually tuned) also to keep swr flat. Any Ideas ??
Kokomo Joe

****
* Ham KH6JF AARS/MARS ABM6JF QCWA WW2 VET WD RADIO *
****

4967. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 23:07:58 UTC
From: Frank Alforo <alforol@dslextreme.com>
Message-ID: <106emome0dkd805@corp.supernews.com>
Source record: 97539

Dave wrote:

> A major portion of 'stealth design' is to deflect the radar signal in
> directions away from the transmitter [i.e. deflect the echo]. Hence, the
> many flat panels on the F-117.
>
> A secondary feature of the design is absorbent material.
>
> A third feature is the hex filter designs in the windows/turbine
> aperture etc [allow rf in but keep it from getting out].
>
> But, your basic absorbing material is found in numerous graphite epoxies
> whose composition is classified.
>
> You may find useful information on basics by checking out 'space cloth'.
> Space cloth is used for radar dummy loads and is available in Zo that
> provide VSWRs from 5:1 to 1:1. At 1:1 there is no reflection.

I read somewhere that the absorbant material had an impedance of 377 ohm per square. J Kraus showed that space cloth of this impedance reflects 30 percent of the incident wave.
Is space cloth still manufactured? A google search turned up zero hits.

Tnx es 73, Frank

4968. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 23:17:30 UTC
From: Frank Alforo <alforol@dslextreme.com>
Message-ID: <106enagrif5o9c9@corp.supernews.com>
Source record: 97540

"Ed Price" <edprice@cox.net> wrote in message
news:CAw9c.15750$Q45.10237@fed1read02...
>
> "Frank Alforo" <alforol@dslextreme.com> wrote in message
> news:106clev7kl8o861@corp.supernews.com...
> > Anybody have any info the material used on the stealth aircraft to
absorb
> > radar signals?

> The 297 hits on Google for "radar absorbent material" was information
> overload? The 3,730 hits for "RF anechoic material" frightened you? And
the
> 70,100 hits for "stealth aircraft design" sent you scurrying here to see
if
> we had anything for you?

> At least it's nice to see you doing your homework before Sunday night.

> Ed
> wb6wsn

Tnx for the tip, Ed. Your point is well taken. But it seems to me that the same can be said for the great majority of the posts seen here. Perhaps we need a moderator to keep irksome and inane posts from cluttering up the newsgroup and provoking the ire of the members who visit here.

Frank :)

4969. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 23:21:06 UTC
From: George <look@signature_to.reply>
Message-ID: <C5J9c.5074$lt2.3665@newsread1.news.pas.earthlink.net>
Source record: 97541

I seem to remember a few years back, a guy with a similar antenna used it as a high gain end-fire on 2m EME. The moon didn't stay in the main lobe very long, but when it was there he had a pretty good EME station!

George, K6GW

"John Smith" <pani@yahoo.com> wrote in message news:c44kl2$2d1a24$1@ID-225206.news.uni-berlin.de...
> Can I use a long wire at 6m with a random wire antenna tuner?
> The wire is about 1/4 mile long, and off the ground about 6 foot,
> (old electrified fence line on top of a fence)
> Any Idea what the pattern would be? or if it would work?
>
> Thanks
>
>

4970. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 23:25:38 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1ad0bb6ff5f6c0a79896c8@news.individual.net>
Source record: 97542

In article <so37c.696$Ve2.135@newssvr23.news.prodigy.com>,
kolesnik@sbcglobal.net says...
> If I'm treading old ground please excuse the post. Today at the local
> hamfest I ran across a 20 meter Isotron that the seller touting. After
> looking at its simplicity and hearing how great it was I couldn't resist
> because it was only $10.00. So now that I have it, I'm curious as to the
> theory behind it and how an 89 turn coil of No. 12 wire on a 3/4" piece of
> PVC along with a 12" aluminum rod and a couple of aluminum plates can load
> and dissipate 1000 watts. I've seen their ads for years and always thought
> they were snake oil but at $10.00 I bit. Anyone really know the theory
> behind these things?

Just for the record, Hank, I've had an Isotron antenna and it works just
like a very expensive dummy load. Provides a good SWR match but doesn't
radiate worth a darn, and it's deaf as a post for receive.

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

4971. Re: Flakey Ham IV Control Unit F-I-X-E-D !!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 23:25:42 UTC
From: aRKay <noemail@foobar.com>
Message-ID: <noemail-7E88B2.17254228032004@newssvr24-ext.news.prodigy.com>
Source record: 97543

It has been three days and the unit is working Great! Sure glad I did
not have to climb the tower.

In article
<aa5vuNOSPAM-FF2382.13134326032004@newssvr23-ext.news.prodigy.com>,
"Dick, AA5VU" <aa5vuNOSPAM@arrl.net> wrote:

> First, I want to thank everyone that responded to my posting regarding
> the flakey meter that seemed to have a mind of it own with the needle
> dropping to the South (full right) side.
>
> I pulled the cover tonight and put some tissue around to absorb the over
> spray. I then sprayed-the-hell out Calibration pot with Radio Shack
> contact cleaner and gave it a real work out with the power OFF. After it
> was dry, I turned on the power and the needle for the first time in two
> months showed the location of the beam. Yea! I no longer have to go
> outside with a flashlight to see where the beam is pointed.
>
> The above is the good new and what I thought was the problem. When i
> replaced the cover and pushed on the top, the needle dropped back to
> South. Pulled the cover and the problem was the with the reflective tape
> I installed several months ago to help with a luminescence issue with
> the 28 volt lamp. (This was another long shaggy dog story about a 12
> volt bulb burning a hole in the plastic meter case that had to be
> replaced). The fix was easy to just remove part of the reflective tape
> that was touching the lamp solder joint. Replaced the cover with a thin
> 1/4" strip of reflective tape on the edge by the lamp. Something tells
> me this may have been most of the problem.
>
> The rotor and control unit are now working FB.
>
> Dick - AA5VU

4972. Re: artificial ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 23:28:39 UTC
From: jgboyles@aol.com
Message-ID: <20040328182839.17874.00000243@mb-m03.aol.com>
Source record: 97544

>I remember that some types of military vehicles with radioes and useing
>whip antennas had a so called "artificial" gnd
>I think MFJ made one of those
>at one rimw or another too! Would this type gnd be of any benefit
>if I am useing inverted dipoles (mostly vertical polarized).

Probably not. Your inverted dipole should be very nearly balanced. A balanced antenna system would not benefit from an artificial ground. You might consider a 1:1 balun to prevent feedline radiation, and to preserve system balance.
Artficial grounds are actually part of the antenna, and are useful when there is a severe imbalance in the system. Also when there is a significant amount of "rf in the shack", which is what you get with imbalance. The artificial ground attempts to put your rig chassis at rf ground, and no rf in the shack. How well they work, that is another thread.

73 Gary N4AST

4973. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 23:34:13 UTC
From: dplatt@radagast.org
Message-ID: <106eo7l4dj6kp81@corp.supernews.com>
Source record: 97545

In article <MPG.1ad0bb6ff5f6c0a79896c8@news.individual.net>,
Steve Silverwood <kb6ojs@arrl.net> wrote:

>Just for the record, Hank, I've had an Isotron antenna and it works just
>like a very expensive dummy load. Provides a good SWR match but doesn't
>radiate worth a darn, and it's deaf as a post for receive.

"But look at that beautiful plumage!"

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4974. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-28 23:41:33 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <NoJ9c.23959$gA5.313730@attbi_s03>
Source record: 97546

Frank Alforo wrote:

SNIP

> I read somewhere that the absorbant material had an impedance of 377 ohm per
> square. J Kraus showed that space cloth of this impedance reflects 30
> percent of the incident wave.
> Is space cloth still manufactured? A google search turned up zero hits.
>
> Tnx es 73, Frank
>

I last purchased 'space cloth' [122 ohm/square] in 1990. I don't know if
it's still manufactured.

W1MCE

4975. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 00:06:00 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <JLJ9c.16071$Q45.5995@fed1read02>
Source record: 97547

"Frank Alforo" <alforol@dslextreme.com> wrote in message
news:106enagrif5o9c9@corp.supernews.com...
>
> "Ed Price" <edprice@cox.net> wrote in message
> news:CAw9c.15750$Q45.10237@fed1read02...
> >
> > "Frank Alforo" <alforol@dslextreme.com> wrote in message
> > news:106clev7kl8o861@corp.supernews.com...
> > > Anybody have any info the material used on the stealth aircraft to
> absorb
> > > radar signals?
>
> > The 297 hits on Google for "radar absorbent material" was information
> > overload? The 3,730 hits for "RF anechoic material" frightened you? And
> the
> > 70,100 hits for "stealth aircraft design" sent you scurrying here to see
> if
> > we had anything for you?
>
> > At least it's nice to see you doing your homework before Sunday night.
>
> > Ed
> > wb6wsn
>
> Tnx for the tip, Ed. Your point is well taken. But it seems to me that the
> same can be said for the great majority of the posts seen here. Perhaps we
> need a moderator to keep irksome and inane posts from cluttering up the
> newsgroup and provoking the ire of the members who visit here.
>
> Frank :)

Naah, an official moderator isn't needed. Besides, he'd get burned out too
fast anyway.

BTW, absorbent material is NOT 377 ohms per square. The traditional
absorbent material is decidedly low-tech, consisting of open-cell urethane
foam with carbon particles dispersed along the cell walls. The grungy way to
make this is to cast a monster billet of foam, maybe 10' long by 4' by 4'.
The billet is then squashed flat in a press, and submerged in a solution of
carbon particles (lampblack; and seems I heard of that being made by
scraping the soot of a propane flame off of a copper block), water and
ethylene glycol (for wetting). The billet is allowed to expand, soaking up
the solution, and then drips dry. It's just like a huge kitchen sponge.
Particles of carbon are then left disperesed, almost painted, on the cell
walls. Then, after some more oven drying, they cut the billet, with a hot

wire, into those fancy pyramidal shapes. Then, some latex spray paint for that high-tech blue or white look. And then they sell them to you for $175 per 24" square!

If you think of a plane wave propagating along, it has a 377 ohm wave impedance over a unit area of wavefront. As the wave encounters the tips of the pyramidal cones, a bit of the wave begins to encounter a slightly lower impedance. As the wave propagates further, the impedance over the unit area decreases. The wave begins to lose energy to ohmic heating of the lower and lower impedance medium. Finally, at the base of the cones, the wave is trying to propagate in a much lower than 377 ohm medium, and it's giving up energy rapidly to warm the carbon particles. (With enough energy lost, it might even melt the foam or ignite it.)

The tapered shape is used so as to present a gradual change in impedance. The thing to avoid is any sudden change in impedance, which would result in a reflection. There is much debate on optimizing the shape; right pyramids, truncated pyramids, rotated sections of the pyramid, cones; some have advantages in certain applications. The particles creating the loading can be adjusted; sometimes ferrite particles are used with, or in place of, the carbon.

(Before urethane foam was used, early researchers did use horse-hair. Maybe one of them had some auto upholstery experience to draw on.)

All stealth is a combination of absorbing what you can, reflecting what you can't (in more benign directions), trapping energy in labyrinths and avoiding resonant structures (like exposed weapons or long panel seams, etc). Another approach is to use multi-layer 'sandwiches" to create ohase cancellation to a wave, but this is really difficult to optimize for more than one frequency.

Ed
wb6wsn

>
>

4976. Re: artificial ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 00:23:18 UTC
From: k9sqg@aol.com
Message-ID: <20040328192318.12366.00000199@mb-m16.aol.com>
Source record: 97548

The MFJ Artificial Ground only works to "reduce rf" at the station and the associated problems. Except for very specialized cases, it will have no improvement on the radiated signal.

73s,

Evan

4977. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 00:40:38 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <agK9c.9904$Kp4.5342@nwrddc03.gnilink.net>
Source record: 97549

"George" <look@signature_to.reply> wrote in message
news:C5J9c.5074$lt2.3665@newsread1.news.pas.earthlink.net...
> I seem to remember a few years back, a guy with a similar antenna used it
as
> a high gain end-fire on 2m EME. The moon didn't stay in the main lobe
very
> long, but when it was there he had a pretty good EME station!
>
> George, K6GW
>
>I'd be very surprised if this really worked- the warm earth noise p/u from
a long wire would be horrendous, ruining the G/T. Perhaps you were thinking
of a terminated rhomboid?

Dale W4OP

4978. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 01:39:03 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <X6L9c.8609$u_2.3026@nwrddc01.gnilink.net>
Source record: 97550

Dustin

Or -- I have several BNC male to SMA male adapters that I dont consider to be precious. I'm in the Los Angeles area. Digi-Key seems to have alot of coax connectors, and adaptors

Jerry.

"Jim Weir" <jim@rst-engr.com> wrote in message news:bq4e6055qtnn5akr6st7k1ih7sqgpjsoep@4ax.com...
> Use RG-174. Finding an inexpensive SMA connector for RG-58 is difficult.
>
> Jim
>
>
> "Dustin" <fordman@btc-bci.com>
> shared these priceless pearls of wisdom:
>
> ->Hello, I am going to be making some adaptor harnesses for my HT, they are
> ->going to have a PL-259 on one end and a SMA male end on the other, my
> ->question is are the center conductor's inside the RG-58 and RG-174 the same
> ->diameter because I see all the jumper harness's that are available
> ->commercially made of RG-174, but when I see DIY pages they are made of
> ->RG-58, and I just want to make sure. I read that RG-58 has alot less loss
> ->and is cheaper. Thanks
> ->
> ->
>
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

4979. WTB AEA 2M Isopole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 02:22:45 UTC
From: David L Thompson <thompson@mindspring.com>
Message-ID: <VLL9c.3686$NL4.2061@newsread3.news.atl.earthlink.net>
Source record: 97551

Must be in working order. Price and condition in e-mail to me.

Thanks 73 Dave K4JRB
thompson@mindspring.com

Ignore the spam blocker message as I will select your reply.

4980. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 02:38:53 UTC
From: "H. Adam Stevens" <hstevens@totalaccessNOSPAM.net>
Message-ID: <106f38567ohg0f6@corp.supernews.com>
Source record: 97552

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:40672bc4$1_5@corp.newsgroups.com...
> Dave Shrader wrote:

snip for brevity, not for slight

> Heh, heh, Dave, I think you just proved my point. :-) If you had no time
> or budget constraints, would you ever be 100% satisfied with any design?
> I wouldn't.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

Neither has Porsche been satisfied.
I offer as evidence the 911. My new C4S is better than my last C4.
So, when is somebody going to make a receiver better than my 75S3B?
73
H.

OB On antennas.
Bought a couple of the Hi-Q motorized babies, the little one and the BIG
(160) one.
Really beautiful work. Art, really. Just gorgeous. But.
The little one shows 33 ohms at resonance on 20.
Returning the BB3 to the Durango, I measure 9 ohms.
hmmmm...
A little checking and, yup, ~10db better with the BB3. ON 20!!
On the Vintage Side Band net today, my ~100 watt S-Line and the BiggIR on
the aluminum roof compared well with the Nott BB3 and the 200 watt TS480 in
the truck. I'm using a toroidal autoformer to match the 9 ohms giving ~50
ohms at resonance.
The Tarheel is about -6db from the Nott. It's a 20 ohm load on 20.
ON 20!!
Not on 80. They're comparable there; Coil losses dominate. The Tarheel is
better built I think.
Amazing what 10x more conduction electrons will do (The Nott's COPPER).
OTOH this configuration I have is 80 - 20 only.

This is all on 20 meters, mind you.
The impedance measurements......
I keep saying that.......

On 80 and 160 (duh) the Hi-Q should win, while the Tarheel on 80 offers the
easiest automation.
I think a 4" diameter screwdriver, oops, that was the first 160 DXCC wasn't
it?

Nobody builds everything I want.
Oh well
73 all

H.

>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

4981. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 02:59:32 UTC
From: gmz79@aol.comnospam
Message-ID: <20040328215932.29966.00000316@mb-m11.aol.com>
Source record: 97553

>From: Jim Weir jim@rst-engr.com
>Date: 3/28/04 1:04 PM Eastern Standard Time
>Message-id: <tr4e605ff8iopvfg5n5v96vru396af6kqu@4ax.com>
>
>Why would you do that? Solid has less loss. If you are worried about it
>flexing too much and work-hardening (or breaking) the center conductor, use a
>strain relief of shrink sleeving at both ends.
>
>Jim
>----------

Solid is fine base applications.
In mobile or portable use it is a failure waiting to happen.
NOT IF----------WHEN--PERIOD

In over 40 years of experience in mobile communications the 2nd thing I check
is the '58 at the pl259.(first being the fuse) 95% of the time broken center
conductor. Funny I've never seen this happen with stranded.
Go Figure
KC*VIF
Greg Z
to thine own sound be true

4982. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 03:05:43 UTC
From: Stephen Cowell <scowell@sbcglobal.net>
Message-ID: <boM9c.3210$TH6.1016@newssvr23.news.prodigy.com>
Source record: 97554

"Dave Platt" <dplatt@radagast.org> wrote in message
news:106eo7l4dj6kp81@corp.supernews.com...
> In article <MPG.1ad0bb6ff5f6c0a79896c8@news.individual.net>,
> Steve Silverwood <kb6ojs@arrl.net> wrote:
>
> >Just for the record, Hank, I've had an Isotron antenna and it works just
> >like a very expensive dummy load. Provides a good SWR match but doesn't
> >radiate worth a darn, and it's deaf as a post for receive.
>
> "But look at that beautiful plumage!"

It's "pinin' for the fjiords"...

--
Steve
KI5YG
.

4983. Re: Long wire at 6m?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 03:43:51 UTC
From: Tom Ring <tarnews@taring.org>
Message-ID: <40679b82$0$430$5cbedd26@news.real-time.com>
Source record: 97555

Well I had some good typo and editing errors there. But I think the
message was still evident.

Rule #1 - don't edit a message more than once.

tom

Tom Ring wrote:

> Enough so I don't have to model the obvious. I alpha tested 3 different
> modeling programs for the author in the early 90's, currently own 5 if I
> remember correctly, have modeled hundreds of yagis, built dozens, and
> tons of other, non-yagi radiating structures. And designed and built
> the highest gain 432 antenna ever tested at Central States VHF
> Conference. :)
>
> If most of the energy is going off the end(s), there can't be much left
> to go off the sides, therefore it can't perform like a dipole off the
> sides. Those little spikes are very misleading, and very narrow. Apply
> an averaging function 2 or 3 degrees wide on the spikes and the nulls,
> and you'll see a much truer picture.
>
> The physics doesn't lie - antenna patterns are a have to add up to 100%
> of the input power (ignoring losses). If, picking nice round numbers,
> 90% is in 5 degrees off the end, then only 10% is available for th.
>
> tom
> K0TAR
>
> Richard Clark wrote:
>
>> On Sat, 27 Mar 2004 21:41:20 -0600, Tom Ring <tarnews@taring.org>
>> wrote:
>>
>>
>>> Nope, it will be much much less than dipole in almost every direction
>>> except the direction of the wire. There is only so much energy to go
>>> around, and most of it is going in the forward or forward/backward
>>> directions, depending on termination of the wire.
>>>
>>> "You cannu break the laws of physics, captain!" - Only a half wave
>>> dipole will act like a half wave dipole.
>>>
>>> tom
>>

>>
>>
>> Hello Major Tom,
>>
>> Count down, systems on. You haven't modeled have you?
>>
>> 73's
>> Richard Clark, KB7QHC
>
>

4984. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 04:51:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c48a0qhkl1@hercules.btinternet.com>
Source record: 97556

> Just for the record, Hank, I've had an Isotron antenna and it works just
> like a very expensive dummy load. Provides a good SWR match but doesn't
> radiate worth a darn, and it's deaf as a post for receive.
>
==========

But that's exactly how it's supposed to work although the manufacturer doesn't mention it in his specification.

And as every good amateur knows, the most important characteristic of any antenna is the ubiquitous SWR. The ARRL and RSGB handbooks attach much space to it.

4985. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 06:54:38 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403282254.6eaa0241@posting.google.com>
Source record: 97557

o Any smooth impedance curve plotted on a
Smith chart will have maximum reactance
at a point on the curve which is tangent
to a constant-reactance curve on the
chart, or which lies at an end of the
impedance curve. Call the impedance at
the point of maximum reactance Zm.

o Clearly, it will be easier to see the
maximum-reactance point if you simply
plot the reactance versus the
independent variable (such as frequency).

o If the maximum reactance is at such a
tangency on a Smith chart, the point of
tangency will be independent of the
reference impedance to which the chart
is plotted.

o In general, the maximum-reactance point
on a constant-SWR circle which passes
through Zm will not be at Zm. Call the
point of maximum reactance on that
constant-SWR circle Zs.

o If you change the reference impedance to
which the Smith chart is scaled, clearly
Zm will still be the maximum reactance
point on the impedance curve. However,
Zm will in general have a different SWR,
and the maximum-reactance point on the
new constant-SWR circle which passes
through Zm will in general be different
from Zs.

o In other words, the SWR circles are useless
for finding the maximum-reactance point on
the impedance curve.

Example: Zm = 1000+j800 ohms
Ref. Impedance: 50 ohms: SWR = 32.82; Zs for that circle = 821.25+j819.73
Ref. Impedance: 300 ohms: SWR = 5.59; Zs for that circle = 865+j811.31
Ref. Impedance: 600 ohms: SWR = 3.; Zs for that circle = 1000+j800

(The 600 ohm case illustrates that there is no requirement that Zs and Zm differ.)

We now return you to your regularly-scheduled obfuscation.

4986. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 07:08:02 UTC
From: Mike <km6ab@pacbell.net>
Message-ID: <mXP9c.15954$S53.11320@newssvr27.news.prodigy.com>
Source record: 97558

I think someone would be in a lot of trouble if you find the recipe for
a specific stealth aircraft on the Internet. The "spacecloth" mentioned
in another post could be similar to Echosorb, a popular microwave RF
absorbent material that is available in sheet form. It ranges from a
1/16" thick pliable rubber to thicker, multilayer foam that looks like
the black antistatic foam used to ship IC's and other semiconductors.

Frank Alforo wrote:
> Anybody have any info the material used on the stealth aircraft to absorb
> radar signals?
>
>

4987. Need assembly instruction for Diamond CP5 vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 09:03:03 UTC
From: Hans Johansson <hans.a.johansson@telia.com>
Message-ID: <bDR9c.87751$dP1.257354@newsc.telia.net>
Source record: 97559

Hi all,
I got my hands on a Diamond CP5 vertical, but it's all in bits and
pieces ;-) I need a copy of the assembly instructions.

Anyone knows where to find it, is there a pdf on the net somewhere?
Maybe you have a papercopy that you can scan or fax to me?

cheers,
Hans / SM0IMJ

4988. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 09:41:49 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0403290141.2ccfe6c4@posting.google.com>
Source record: 97560

dplatt@radagast.org (Dave Platt) wrote in message
news:<106e7tcolt77477@corp.supernews.com>...
> In article <1c7e605m8pk0udqo7brnjsr4r0fkbainbf@4ax.com>,
> Richard Clark <kb7qhc@comcast.net> wrote:
>
> >> then the wire will work harden and break
> > >
> > >Copper?
>
> That's my experience, and a few minutes of Google-searching the Web
> comes up with numerous references stating that copper does suffer from
> work hardening after cold-deformation. The extent depends on the
> purity of the copper and on what other metals it has been alloyed
> with. [Lead is apparently one of the few metals not subject to work
> hardening.]
>
> This process can be reversed by annealing, but that's a bit tricky to
> do if the copper is already part of a coaxial cable :-)

. . . no sweat, just run a 2M kilowatt thru the 174 and I guarantee
the center conductor will get "annealed" . .

4989. Major error found in my small coax loops

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 10:02:25 UTC
From: loopfan <loopfan@loopy.null>
Message-ID: <RuS9c.5165$Dv2.1306@newsread2.news.pas.earthlink.net>
Source record: 97561

Major Goof on my part:

If anyone has built a coax-loop from my instructions at:

http://www.greertech.com/hfloop/mymagloop.html

I must offer my apologies if you have taken into account the velocity factor of the coax as I indicated.

Thanks to everyone's help here, and with my own clamp-on ferrite choke test, I satisfied myself that the outer-braid skin is really functioning as the antenna element. I didn't follow through however by removing references to calculating in velocity factors.

I did a search for "common mode velocity factor" in this newsgroup and found that the common-mode, which I am purposely using with the loop arms, is not subject to major velocity factor issues. Only the inner differential mode is.

So what you probably have is really a much smaller loop than 0.10 wavelength.

I should have caught this when my wire loop project lengths almost doubled the coaxial loop lengths, but in the back of my mind I assumed that it was due to being shortened by the velocity factor of around 0.66.

I can hear my electronics teachers telling me now what the real meaning of the word "assumed" means all over again! :)

I guess it's true that the more I learn, the less I know ...

I'll try to clean up that project website mess asap ...

73 de WN6F

4990. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 12:23:04 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <IyU9c.29578$K91.88263@attbi_s02>
Source record: 97562

H. Adam Stevens wrote:
SNIP
>
> Nobody builds everything I want.
> Oh well
> 73 all
>
> H.
>
Ah Ha! I see an entrepreneurial [sp?] opportunity for you!!

Build it yourself. If it's good .... you contribute to the economy and become $$$$$$$$$$$$$$$$$$$$$ beyond your wildest dreams.

4991. Re: Will displacement current form a close loop ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 14:31:51 UTC
From: richardharrison@webtv.net
Message-ID: <8783-40683357-317@storefull-3256.bay.webtv.net>
Source record: 97563

Bow et al wrote:
"We know normal conductor current form a closed loop, is this also true for displacement current?"

AC circuits can be completed by capacitance. Countless coupling capacitors demonstrate a-c flow on and through conducting parts of a circuit. The same current flows via displacement through the dielectric which inhibits charge conduction.

AC current is the same through a series path but moving charges that produce electric force may go only back and forth in very short paths.

Conduction causes displacement and vice versa.

Best regards, Richard Harrison, KB5WZI

4992. Re: Portable QRP project for blind ham living in apartment.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 14:32:15 UTC
From: Mikey <ki6pr@arrl.net>
Message-ID: <4066e442_2@newsfeed.slurp.net>
Source record: 97565
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.antenna

Without a doubt - Elecraft's KX-1. The rig is designed from the frame up as totally operable by totally blind operators. The rig covers 20/30/40 meters with extended receive. It has a built-in keyer, and automatic antenna tuner. Antenna connector is BNC (I have a small dipole fed with RG-174 that works well with this rig). The rig also features a complete DSP system, and totally audible feedback on every feature.

The rig is small enough to fit in a shirt pocket, and runs 1.5 W on the internal alkaline pack, or 4 W on an external supply.

Check their website for details.

- Mike KI6PR
El Rancho R.F., CA

"Darrell Shandrow" wrote
> Portable QRP Project
>
> The purpose of this project is to research, then implement a portable
> ham station that can be operated by a blind person from an apartment and
> from other portable locations using either battery power for Field Day
> and other portable situations or a power supply for primary home
> operation. There are several ultimate goals as follows:
>
> 1. Operate from an apartment with little or no evidence that there's
> a ham station.
> 2. Operate the ARRL Field Day contest event and in other portable
> situations such as another person's house, amateur radio demonstration
> site or outside the office building at work.
>
> Antennas
>
> The antenna must be stealth or nearly stealth. It must also be usable
> by a blind person with no special test equipment available and little or
> no available sighted assistance. This means there must be no tuning
> requirements that require sight to adjust the antenna or read an SWR
> meter. Though sufficient performance is required to actually make
> contacts (we're not looking for a dummy-load here) any and all
> performance compromises are acceptable to reach the results described in
> this paragraph.
>
> Radios and Power Requirements
>
> The rig must be QRP to prevent unnecessary RFI and to minimize power

> consumption during portable operation such as Field Day. An inability
> to completely use all functions of the radio by a blind person is
> acceptable, so long as the basics of changing frequencies, listening and
> transmitting are possible without the need for computer control of the
> rig. If only basics are possible, an accessible computer control option
> must be available for fuller operation in a less portable situation.
>
> The following are the goals for the radio and power requirements:
> " Extremely portable light-weight radio. Should easily fit in a
> backpack. Radio will likely be transported on public transportation
> such as a city bus or carried by way of walking since blind people can't
> drive automobiles.
> " Basic operations of the radio, including QSY, listening and
> transmitting must be possible without sighted assistance. Full
> configuration and operation of the radio must be possible with
> accessible computer control when the radio is not being used in a
> portable situation.
> " Extremely portable, , safe and easy to implement battery power is
> required. No car batteries or other possible dangers or items that
> require sighted assistance to set up and maintain. Prefer battery power
> solution be provided with the radio or as a recognized accessory for the
> radio within the ham community. Potential miswiring of positive and
> negative terminals prevent any experimentation; it must be widely known
> to work out of the box by being connected to the radio.

4993. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 15:03:02 UTC
From: "H. Adam Stevens" <hstevens@totalaccessNOSPAM.net>
Message-ID: <106gepvbjieiuc9@corp.supernews.com>
Source record: 97564

"Dave Shrader" <david.shrader@comcast.net> wrote in message
news:IyU9c.29578$K91.88263@attbi_s02...
>
>
> H. Adam Stevens wrote:
> SNIP
> >
> > Nobody builds everything I want.
> > Oh well
> > 73 all
> >
> > H.
> >
> Ah Ha! I see an entrepreneurial [sp?] opportunity for you!!
>
> Build it yourself. If it's good .... you contribute to the economy and
> become $$$$$$$$$$$$$$$$$$$$$$ beyond your wildest dreams.
>

Building ham gear?
How about "make a tiny profit if you're lucky"?
But then there were guys like Collins, Halligan, Swan.......hmmmmmmmm

73
;^))))))
H.

4994. Re: Britney Spears nude

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 15:08:51 UTC
From: Alex <no@spam.com>
Message-ID: <bleg60pe3u12v639ffq9ucanaf8k4pg1ut@4ax.com>
Source record: 97566

Note: files with scr extension are program files and may easily
contain virus.

Also when they are - like this one - equipped with a fake windows
media player icon.

On Sun, 28 Mar 2004 21:53:49 GMT, "celebsrus" <dggudcmo@dfgtcbln.com>
wrote:

>Britney Spears nude Britney Spears nude Britney Spears nude Britney Spears nude
>Britney Spears nude Britney Spears nude Britney Spears nude Britney Spears nude

4995. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 15:37:17 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <40684309_4@corp.newsgroups.com>
Source record: 97567

Tom Bruhns wrote:
> o In other words, the SWR circles are useless
> for finding the maximum-reactance point on
> the impedance curve.

Useless for finding the *exact* point, yes. Quite useful enough for a
lot of ballpark work. For instance, Zs and Zm are usually as close
as EZNEC's prediction of antenna feedpoint impedance is to the
actual real-world antenna feedpoint impedance.

> Example: Zm = 1000+j800 ohms

Where did this impedance come from? A full wave dipole's feedpoint
impedance is usually around 5000+ ohms. The value above does not
look like the Xmax impedance between 1/2WL resonance and one-wavelength
(anti)resonance for HF thin-wire dipoles. Such a dipole's Xmax impedance
is around 3000+j2000 ohms.

Does Zm represent the impedance at the Xmax point? It's not the Zmax point.

> Ref. Impedance: 50 ohms: SWR = 32.82; Zs for that circle = 821.25+j819.73
> Ref. Impedance: 300 ohms: SWR = 5.59; Zs for that circle = 865+j811.31
> Ref. Impedance: 600 ohms: SWR = 3.; Zs for that circle = 1000+j800
>
> (The 600 ohm case illustrates that there is no requirement that Zs and Zm differ.)

That's better than I expected out of my ballpark rule-of-thumb, Tom.
Note that Xs is within 2.5% of Xm in all three cases and right on for the
type of transmission line that I use. Zs is within 9.5% of Zm. Looks like
my estimates were twice as accurate as I had imagined. Thanks for proving
my original point.

The purpose for my rule-of-thumb is to get me close enough to achieve
cut-and-try tuning from that point on. That's also the purpose to which
I put EZNEC. In my latest experiment, EZNEC missed the actual resistive
component of the impedance by 125% but that's OK because I am close
enough to know which way to go from there.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4996. Re: Britney Spears nude

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 15:48:21 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <406845a0_4@corp.newsgroups.com>
Source record: 97568

Alex wrote:

> Note: files with scr extension are program files and may easily
> contain virus.
>
> Also when they are - like this one - equipped with a fake windows
> media player icon.

So you peeked? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

4997. 260 ft. tower in KY for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 16:47:43 UTC
From: cscott@scott-inc.com
Message-ID: <9e6c519f.0403290847.18821d94@posting.google.com>
Source record: 97469

260 ft. Stainless G-25 tower, excellent condition, on ground. Sections are very heavy-duty weighing estimated 400-500 lbs each. All steel components are galvanized solid-rod, so interor corrosion is not possible. Leg diameter is 1.5". Cross brace diameter is half inch. Face width is 24". Bottom mounting plate is one inch thick with round pivot point.

Section flanges attach with one inch bolts. Located near Bowling Green, KY. For more information
call C. Scott at 270-745-3834, or see photos on web page. Price is $3,200 - as is, where is - you load and move. Referral for moving and installation available. See:
http://www.scott-inc.com/tower/stainless.htm

4998. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 17:09:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bolg60t0p6ami4aglnv2n1je1c5go4gfcf@4ax.com>
Source record: 97470

On Mon, 29 Mar 2004 07:08:02 GMT, Mike <km6ab@pacbell.net> wrote:
>Echosorb, a popular microwave RF
>absorbent material that is available in sheet form. It ranges from a
>1/16" thick pliable rubber to thicker, multilayer foam that looks like
>the black antistatic foam used to ship IC's and other semiconductors.

Hi Mike,

It is also quite heavy which would be inappropriate for aviation
applications. I played with this stuff a dozen years ago when one of
my buddies got a speeding ticket in his 'Vette. He asked me to design
a stealth bra for his ride - it didn't seem to be practical for any of
several reasons.

73's
Richard Clark, KB7QHC

4999. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 18:14:27 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <406867df_2@corp.newsgroups.com>
Source record: 97471

Richard Clark wrote:
> It is also quite heavy which would be inappropriate for aviation
> applications. I played with this stuff a dozen years ago when one of
> my buddies got a speeding ticket in his 'Vette. He asked me to design
> a stealth bra for his ride - it didn't seem to be practical for any of
> several reasons.

Why didn't he just put aluminum foil on his hubcaps like everyone else? :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5000. Re: Britney Spears nude

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 18:47:13 UTC
From: Alex <no@spam.com>
Message-ID: <icrg60d16qri59t22kqa1efnegqp70jj5s@4ax.com>
Source record: 97472

On Mon, 29 Mar 2004 09:48:21 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>So you peeked? :-)

Yes. And this is what I saw:

MZ........This program cannot be run in DOS mode......KERNEL32.DLL
ADVAPI32.DLL CRTDLL.DLL SHELL32.DLL USER32.DLL WININET.DLL WS2_32.DLL
LoadLibraryA GetProcAddress ExitProcess RegCloseKey atoi
ShellExecuteA ToAscii InternetOpenA........

Most of the executable code is probably crypted or at least packed.

Anybody using this one has to be in really desperate need of a
screensaver.

Alex

5001. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 19:11:14 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0403291111.658c621c@posting.google.com>
Source record: 97473

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:<c48a0qhkl1@hercules.btinternet.com>...
> > Just for the record, Hank, I've had an Isotron antenna and it works just
> > like a very expensive dummy load. Provides a good SWR match but doesn't
> > radiate worth a darn, and it's deaf as a post for receive.
> >
> ==================================
>
> But that's exactly how it's supposed to work although the manufacturer
> doesn't mention it in his specification.
>
> And as every good amateur knows, the most important characteristic of any
> antenna is the ubiquitous SWR. The ARRL and RSGB handbooks attach much
> space to it.

Also, a catchy name like "Isotron" helps...Sounds like some kind of
ray gun from a cheap 1950's sci-fi thriller...The combination of the
catchy name, and the low SWR, insure mo-tricity. :/ MK

5002. Difference between 5/8 and 3/4 lambda

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 19:13:12 UTC
From: Marcello <marcello110980@yahoo.it>
Message-ID: <c49sd9nun1@grillo.cs.interbusiness.it>
Source record: 97461

Hello!
wich are the differences between two monoband ground plane vertical antenna
5/8 lambda and 3/4 lambda, with orizontal radilas?(90°).
There is a developing system software to view this difference?
Marcello

5003. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 19:13:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a2tg6098bsiqstrmdlr8fel73huk6tkoac@4ax.com>
Source record: 97474

On Mon, 29 Mar 2004 12:14:27 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>Why didn't he just put aluminum foil on his hubcaps like everyone else? :-)

Do they sell Vettes with steel wheels and hubcaps in Texas?
Do you wear your Levis tucked in your boots or outside them?

5004. Re: RG-58 compared to RG-174

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 20:03:06 UTC
From: dplatt@radagast.org
Message-ID: <106h07q8q38mg53@corp.supernews.com>
Source record: 97475

In article <d22b54c3.0403290141.2ccfe6c4@posting.google.com>,
Brian Kelly <kelly@dvol.com> wrote:

>> This process can be reversed by annealing, but that's a bit tricky to
>> do if the copper is already part of a coaxial cable :-)
>
>. . . no sweat, just run a 2M kilowatt thru the 174 and I guarantee
>the center conductor will get "annealed" . .

Yeah, but once the annealing has been completed, I doubt that the
cable will still have a 50-ohm characteristic impedance ;-)

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

5005. Wireless network

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 20:31:17 UTC
From: trash@cad.3guys.net
Message-ID: <2481713a.0403291231.7e66fb8c@posting.google.com>
Source record: 97476

Internet connections in my area are either t1 or wireless and are very expensive. Our place is on the edge of town, covers acres (A little less than five) and has three buildings (Metal roofs cinder block external walls). Can someone recommend complete (Cables seem to get cut here a lot.) solution that stays legal (Boise Idaho) and will cover our needs?

While I am not stupid this is not my field of expertise so a list of equipment would be appreciated. That is if this is even possible.

I am looking for something that will cover to the buildings. Once at the building's I can then take the signal back to a wired network.

You can see the place I am talking about to get a better picture. (next to an airport.)

http://terraserver.microsoft.com/addressimage.aspx?t=1&s=10&Lon=-116.25518820&Lat=43.57528526&Alon=-116.25518820&Alat=43.57528526&w=1&opt=0&ref=A|5920%20W%20Victory%20Rd,%20Boise,%20ID%2083709

I have looked at http://www.technolab-inc.com/cgi-local/ppalstore/ppalstore.cgi to cover the area. From what I have read I understand I can not output more than 1 WATT at the antenna.

If I go with an netgear WGT624 amp and antenna I think I can put out around 38 DBi

5006. Re: Wireless network

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 22:07:38 UTC
From: dplatt@radagast.org
Message-ID: <106h7hap3nm5gfe@corp.supernews.com>
Source record: 97477

In article <2481713a.0403291231.7e66fb8c@posting.google.com>,
Lonnie <trash@cad.3guys.net> wrote:

>Internet connections in my area are either t1 or wireless and are very
>expensive. Our place is on the edge of town, covers acres (A little
>less than five) and has three buildings (Metal roofs cinder block
>external walls). Can someone recommend complete (Cables seem to get
>cut here a lot.) solution that stays legal (Boise Idaho) and will
>cover our needs?
>
>While I am not stupid this is not my field of expertise so a list of
>equipment would be appreciated. That is if this is even possible.
>
>I am looking for something that will cover to the buildings. Once at
>the building's I can then take the signal back to a wired network.
>
>You can see the place I am talking about to get a better picture.
>(next to an airport.)
>
>http://terraserver.microsoft.com/addressimage.aspx?t=1&s=10&Lon=-116.25518820&Lat=43.5752
8526&Alon=-116.25518820&Alat=43.57528526&w=1&opt=0&ref=A|5920%20W%20Victory%20Rd,%20Boise,
%20ID%2083709
>
>I have looked at http://www.technolab-inc.com/cgi-local/ppalstore/ppalstore.cgi
>to cover the area. From what I have read I understand I can not output
>more than 1 WATT at the antenna.

I believe that the standard is 1 watt PEP into an omnidirectional
antenna having 6 dBi of gain... hence, an EIRP of 36 dBm. If your
setup is for point-to-multipoint access (e.g a single access point and
a bunch of roving stations) you're limited to this 36 dBm EIRP, and if
you use a higher-power transmitter you must reduce your antenna gain
accordingly.

You can achieve higher EIRP for those links which are "exclusively for
fixed, point-to-point operations", by using higher-gain directional
antennas. For every 3 dB of antenna gain above the 6 dBi, you must
decrease your transmitter power by 1 dB.

This combination can enable you to get EIRP of up to about 50 dBm, by
using (e.g.) 23 dBm of transmitter power and a 27 dBi gain antenna.

>If I go with an netgear WGT624 amp and antenna I think I can put out
>around 38 DBi

My guess is that you're going to have serious trouble if you try to cover that much area with a single high-powered access point. You probably could not boost the access point's power or gain high to cover the outbuildings, without exceeding the 36 dBm EIRP limit. And, even if you could, the little 15 dBm transmitters in most 802.11b cards probably couldn't get a strong enough signal back to the access point.

What you probably could do, though, is to install an access point at your central building which is intended to create point-to-point links with the outbuildings. You'd install one or more directional gain antennas at the central building (e.g. Yagis or parabolic dishes, aimed at the outbuildings), and install similar gain antennas on the outbuildings. You'd install an 802.11b bridge (or something acting as one) in each outbuilding... the outbuildings could use wired Ethernet inside, or could each have an 802.11b access point running on a different channel.

I've spoken with a guy who has wide-area 802.11b networks of this sort running here in the San Francisco Bay area. By using parabolic dish antennas on both ends of the links, he can maintain full-speed 802.11b links over distances of several miles, using only ordinary 802.11b access points and PCMCIA cards (typically 15-16 dBm output) - no amps are necessary.

This is the best way, I think, to do the job - it doesn't require the use of excessive power.

Now, it's possible that you could perhaps use 802.11b at higher power levels under the terms of Part 97 (amateur radio) if you and the other users are licensed. However, doing so legally looks tricky to me... you have to avoid _any_ commercial use of the link, and cannot use encryption (no WEP, no SSL).

www.maxrad.com is one source for highly-directional 2.4 GHz antennas. There are plenty of others.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

5007. Re: Britney Spears nude

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 23:03:08 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4068ab88_1@corp.newsgroups.com>
Source record: 97478

Alex wrote:
> Anybody using this one has to be in really desperate need of a
> screensaver.

I don't need it. I've got the Janet Jackson one.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5008. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 23:06:21 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4068ac49$1_1@corp.newsgroups.com>
Source record: 97479

Mark Keith wrote:
> Also, a catchy name like "Isotron" helps...Sounds like some kind of
> ray gun from a cheap 1950's sci-fi thriller...

Like the "Interositer" from "This Island Earth"?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5009. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 23:07:39 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4068ac96_1@corp.newsgroups.com>
Source record: 97480

Richard Clark wrote:
> Do you wear your Levis tucked in your boots or outside them?

I'm not allowed to wear boots. I don't own any cows.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5010. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 23:22:14 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <DbadnbGt5YARMvXdRVn-hQ@comcast.com>
Source record: 97481

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4068ac49$1_1@corp.newsgroups.com...
> Mark Keith wrote:
> > Also, a catchy name like "Isotron" helps...Sounds like some kind of
> > ray gun from a cheap 1950's sci-fi thriller...
>
> Like the "Interositer" from "This Island Earth"?

The interositer worked..

5011. Re: Isotron ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-29 23:46:04 UTC
From: jgboyles@aol.com
Message-ID: <20040329184604.17909.00000397@mb-m03.aol.com>
Source record: 97482

>The interositer worked..

It sure did, almost got that guy and gal killed by aliens. That thing was like a giant Heathkit from outer space. I envied the guy in the movie getting to put it together.
73 Gary N4AST

5012. Re: Britney Spears nude

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 00:00:55 UTC
From: Kevin Gunther <beeltee@optonline.net>
Message-ID: <XM2ac.151069$LX.18470141@news4.srv.hcvlny.cv.net>
Source record: 97483

"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message
news:4068ab88_1@corp.newsgroups.com...
> Alex wrote:
> > Anybody using this one has to be in really desperate need of a
> > screensaver.
>
> I don't need it. I've got the Janet Jackson one.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
> I don't know if I'd want to bid with only half a pair.

Kevin

5013. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 00:12:35 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <TX2ac.34332$_U.13878@lakeread05>
Source record: 97484

"Richard Clark" wrote
> >Mike wrote:
> >Echosorb, a popular microwave RF
> >absorbent material that is available in sheet form. It ranges from a
> >1/16" thick pliable rubber to thicker, multilayer foam that looks like
> >the black antistatic foam used to ship IC's and other semiconductors.
>
> Hi Mike,
>
> It is also quite heavy which would be inappropriate for aviation
> applications. I played with this stuff a dozen years ago when one of
> my buddies got a speeding ticket in his 'Vette. He asked me to design
> a stealth bra for his ride - it didn't seem to be practical for any of
> several reasons.

I was going to paint a whole-car with the RAM-paint used on my submarine masts. Until I saw the price. Cheaper to pay the tickets ;-)

Jack

5014. Re: What do you seal your Antenna leads with outdoors

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 00:42:15 UTC
From: Don <tuffy@johnstown.net>
Message-ID: <106hgf96m9ssv20@corp.supernews.com>
Source record: 97485

2 eggs over easy, sausage, and hash browns.

Eat all the food...use your finger and wipe the connector with the left over grease on the plate!!

Fills you up..AND...seals your connector!!

What more could you ask for?

"Stevens" <stevens@stevens.net> wrote in message news:f7po50hr013b4pu8131gjtid8c4t65a1dj@4ax.com...
> Plasti-Dip
>
>
>
> On Sat, 20 Mar 2004 04:28:49 GMT, "Major Tom"
> <NonValidAddress@comcast.net> wrote:
>
> >"R. Scott" <washingtonhamTHREAD@yahoo.com> wrote in message
> >news:4057128A.FBB090F@yahoo.com...
> >> I had been using the Stretch Seal stuff. But Im replacing all my coax
> >> and noticed that the Feed for my Beam the seal was all cracked and had
> >> come apart in places (especially the braid side. Ive a can of Liquid
> >> tape and had thought of that.
> >>
> >> So how do you guys seal your outside coax ?
> >> --
> >> Rick N7HJ
> >> Everett, Washington
> >> Remove THREAD to reply.
> >
> >One word: BUTYL
> >
> >But instead of buying that "Coax-Seal" for 3 bucks for a small box,
> >I got a large roll "1/2 in diameter, over 10 feet long for
> >less than 8 bucks at an auto glass shop. Same stuff for a lot
> >cheaper. I bought a roll of this stuff back in 1990 and i'm still
> >into that same roll! Stuff lasts for decades.
> >
>

5015. Concern about 500 milliwatt amp and Huber+Suhner antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 01:28:27 UTC
From: nyresource@hotmail.com
Message-ID: <64906530.0403291728.1e63061f@posting.google.com>
Source record: 97486

Should I be concerned about this setup:

Netgear AP > Netgear Bridge > YDI DC Injector > YDI 500 milliwatt amp
> Huber+Suhner planer antenna, model SPA 2400/85/17/0/V

I need the special antenna to overcome triple pane uv glass and 1 mile
to wisp.

The antenna is directional (85 degree horizontal) and my desk is right
behind the antenna. I use the set up a couple of hours a day.
Anything to be concerned about?

5016. Re: Concern about 500 milliwatt amp and Huber+Suhner antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 01:49:02 UTC
From: dplatt@radagast.org
Message-ID: <106hkgepblsc550@corp.supernews.com>
Source record: 97487

>Should I be concerned about this setup:
>
>Netgear AP > Netgear Bridge > YDI DC Injector > YDI 500 milliwatt amp
>> Huber+Suhner planer antenna, model SPA 2400/85/17/0/V
>
>I need the special antenna to overcome triple pane uv glass and 1 mile
>to wisp.
>
>The antenna is directional (85 degree horizontal) and my desk is right
>behind the antenna. I use the set up a couple of hours a day.
>Anything to be concerned about?

Well, you've got a 27 dBm radio, connected to a 17 dBi antenna. As I read the Part 15 rules, that's just a hair over the legal limit for a point-to-point 802.11b link - a 27 dBm radio is limited to a 15 dBi directional antenna.

I haven't tried to do the calculations to see whether this level of RF power is likely to be exposing you to RF levels which exceed the FCC's human-exposure standards. I'm guessing that a lot of the power you're transmitting is ending up bouncing off of the glass (secondary guess is that this glass has a metallized coating?) and may be scattering around the room.

If I were setting up a system of this sort I'd probably try to arrange to put the antenna outdoors, and get by with a lesser amount of transmitted power.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

5017. Re: Concern about 500 milliwatt amp and Huber+Suhner antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 02:11:46 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c4al14$2ghu0j$1@ID-225206.news.uni-berlin.de>
Source record: 97488

You could get a small neon bulb,
spread the two wires apart (180 degrees)
then see if it lights up anywhere, if so, bad.
But this "test" is not as sensitive as it should be for exposure.
Distance has a great effect, 3 ft away Vs 9 ft away is
a factor of 9 less exposure.
(declines with 1/(r^n) where r is distance, with n range of 2 to 4)

The thing is on all the time too, unlike cellphone exposure.
Should be outside, reflective glass is partially conductive,
and reflects part of the RF too.

"Chuck Daniels" <nyresource@hotmail.com> wrote in message
news:64906530.0403291728.1e63061f@posting.google.com...
> Should I be concerned about this setup:
>
> Netgear AP > Netgear Bridge > YDI DC Injector > YDI 500 milliwatt amp
> > Huber+Suhner planer antenna, model SPA 2400/85/17/0/V
>
> I need the special antenna to overcome triple pane uv glass and 1 mile
> to wisp.
>
> The antenna is directional (85 degree horizontal) and my desk is right
> behind the antenna. I use the set up a couple of hours a day.
> Anything to be concerned about?

5018. 10 meter ant impedance at 15 meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 04:02:47 UTC
From: pdrunen@aol.com
Message-ID: <20040329230247.21720.00000361@mb-m13.aol.com>
Source record: 97489

Hi Antenna guru's....

Can someone with the NEC or equal antenna simulator tell me what the impedance of a dipole tuned for 28.4MHz is at 21, 21.25 and 21.450?

Also to other way around, what is the impedance of a 15m dipole cut for 21.25 as seen by a generator at 28.2, 28.5 and 29.0.

If I take this 10 meter dipole and attach a RG-58 cable to it, the transformation of the reflected impedance to the sending end will vary with the length of the cable and repeat every half-wave interval (take in account the velocity factor of the RG-58 as 0.6).

What lenght of RG-58 should I use attached to this 10meter dipole to create the highest SWR possible on 21.25 MHz?

My thoughts here is to have two dipoles attached to one feed, the first antenna that the signal meets is the 15meter dipole. The second antenna will be attached after another run of RG-58.

I hope to select the lenght of the 58 run between the two dipoles such that the impedance reflected into the center of the 15 meter dipole is very high at 21.250.

I would hope to reach the same using the 10 meter band such that the 15 meter dipole would present a high impedance to the 10 meter signal.

De KJ4UO

5019. Re: 10 meter ant impedance at 15 meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 04:50:25 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4068fcef_5@corp.newsgroups.com>
Source record: 97490

PDRUNEN wrote:
> What lenght of RG-58 should I use attached to this 10meter dipole to create the
> highest SWR possible on 21.25 MHz?

Any length will result in the same SWR.

> My thoughts here is to have two dipoles attached to one feed, the first antenna
> that the signal meets is the 15meter dipole. The second antenna will be
> attached after another run of RG-58.

The feedpoint impedances of the 15m dipole and 10m dipole are different
enough, you don't have to worry about much interaction. With them in
parallel at the same feedpoint, the high feedpoint impedance on the 10m
dipole for a 15m signal will force most of the energy into the 15m dipole.
Likewise, the high feedpoint impedance on the 15m dipole for a 10m signal
will force most of the energy into the 10m dipole.

On 21.4 MHz, the 10m dipole will have a feedpoint impedance of 200+j450

On 28.4 MHz, the 15m dipole will have a feedpoint impedance of 29-j384

So just parallel them, tune 'em up, and enjoy.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

5020. Re: When You Hear The Heavy Accent & The Poor Phone Connection... HANG UP!!! _____ sOAmt2KqobYS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 05:03:05 UTC
From: Mark Miller <markNOSPAM@pyrotx.com>
Message-ID: <MPG.1ad2bb80cd2023a989688@news.houston.sbcglobal.net>
Source record: 97491
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

In article <KQgMcQHwN$Xnc.7157777@news.x-privat.org>,
Victim_Of_Hype@uxycve.wy.us says...
> When You Hear The Heavy Accent & The Poor Phone Connection... HANG UP!!
...
>Date: Sat, 27 Mar 2004 17:30:10 GMT
>Message-ID: <KQgMcQHwN$Xnc.7157777@news.x-privat.org>
>NNTP-Posting-Host: 69.79.0.32
>Organization: X-Privat NNTP Server - www.x-privat.org

I assume that means hanging up on Puerto Rico as well.

---
quantum:/home/mark> whois -h whois.arin.net 69.79.0.32
New World Network NWN-2 (NET-69-79-0-0-1)
69.79.0.0 - 69.79.63.255
Liberty Cablevision of Puerto Rico, Inc. NWN-2-BLK000-007 (NET-69-79-0-
0-2)
69.79.0.0 - 69.79.7.255

ARIN WHOIS database, last updated 2004-03-29 19:15
Enter ? for additional hints on searching ARIN's WHOIS database.

quantum:/home/mark> whois -h whois.arin.net NWN-2-BLK000-007

OrgName: Liberty Cablevision of Puerto Rico, Inc.
OrgID: LCPR
Address: P.O. Box 719
City: Luquillo
StateProv: Puerto Rico
PostalCode: 00773
Country: PR

NetRange: 69.79.0.0 - 69.79.7.255
CIDR: 69.79.0.0/21
NetName: NWN-2-BLK000-007
NetHandle: NET-69-79-0-0-2
Parent: NET-69-79-0-0-1
NetType: Reallocated
NameServer: DNS-1.LIBERTYPR.NET
NameServer: DNS-2.LIBERTYPR.NET
Comment:
RegDate: 2003-09-26
Updated: 2003-09-26

OrgTechHandle: FABIA-ARIN
OrgTechName: Asencio, Fabian
OrgTechPhone: 787-657-3073
OrgTechEmail: fasencio@libertypr.com

ARIN WHOIS database, last updated 2004-03-29 19:15
Enter ? for additional hints on searching ARIN's WHOIS database.

Oy vey.

- Mark

5021. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 05:04:13 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403292104.26c8e72d@posting.google.com>
Source record: 97492

k7itm@aol.com (Tom Bruhns) wrote in message
news:<3200347.0403282254.6eaa0241@posting.google.com>...
...
> o In other words, the SWR circles are useless
> for finding the maximum-reactance point on
> the impedance curve.

And indeed, why would we look for a reactance arc tangent to an SWR circle which passes through the maximum-reactance point on the antenna impedance versus frequency curve, when we already know that max-reactance point, and know it's at a point on the antenna impedance curve which is tangent to that reactance arc? Why go looking for a point that's a rough approximation to what we want when we already have just what we want?

HOWEVER, for some understanding of why the antenna impedance versus frequency function has the shape it does, I highly recommend Joseph Boyer's "Antenna-Transmission Line Analog" articles in, um, March and April or April and May 1978 "Ham Radio" magazine. I suppose that set of articles hits really close to what Reg wrote in this thread a while ago that probably went zinging over the heads of many, and seemed to be ignored by the target audience... I've been known to supply copies of those articles to folk who can't find them locally.

We now return you to your regularly-scheduled obfuscation.

5022. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 05:27:36 UTC
From: Al Lorona <al_lorona@agilent.com>
Message-ID: <1080624436.148837@cswreg.cos.agilent.com>
Source record: 97493

> The 297 hits on Google for "radar absorbent material" was information
> overload? The 3,730 hits for "RF anechoic material" frightened you? And
the
> 70,100 hits for "stealth aircraft design" sent you scurrying here to see
if
> we had anything for you?
>
> At least it's nice to see you doing your homework before Sunday night.
>
> Ed
> wb6wsn
>

Wow. Good thing Frank is a seasoned ham; had he been a newbie you would
have just chased him from ham radio. Congratulations, Elmer!

Al W6LX

5023. Re: Wireless network

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 09:15:54 UTC
From: Alex <no@spam.com>
Message-ID: <9qci605gcos2f8qnv63n84org7hrhphif4@4ax.com>
Source record: 97494

On 29 Mar 2004 12:31:17 -0800, trash@cad.3guys.net (Lonnie) wrote:

>Internet connections in my area are either t1 or wireless and are very
>expensive. Our place is on the edge of town, covers acres (A little
>less than five) and has three buildings (Metal roofs cinder block
>external walls). Can someone recommend complete (Cables seem to get
>cut here a lot.) solution that stays legal (Boise Idaho) and will
>cover our needs?
>
If you can put up line-of-sight antennas (e.g. on the roofs), then a
few hundred meters distance should pose no problem even with standard
low power wi-fi equipment. Maybe even with dipoles, but certainly with
directional antennas at both ends with even moderate gain.

The 2.4 Ghz field inside the buildings is another story. It is often a
maze of reflections and maximums and minimums and twisted polarities
that may even change mysterieously from time to time.

If you are a radio amateur at heart, you could make some experiments
before making a big equipment investment. Directional antennas can be
made from tin cans, cardboard/aluminium foil etc. Note that the
standard RG58 50 Ohm coax cable antenuates about 1 dB / meter at 2.4
GHz (as opposed to 0.2 dB with LMR400 cable).

Alex

5024. Digital MiltiLevel Modulations - Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 10:15:03 UTC
From: gonzo <krisrad@wp.pl>
Message-ID: <c4bhb0$g7p$1@atlantis.news.tpi.pl>
Source record: 97495

hi,

Can Anyone tell me what are advantage and disadvantage of using this kind of
modulation in radio transmition.
I will be gratefull for any help.
Thanks and greet from Poland

Gonzo

5025. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 12:59:32 UTC
From: richardharrison@webtv.net
Message-ID: <19867-40696F34-161@storefull-3258.bay.webtv.net>
Source record: 97496

Frank Alforo wrote:
"J. Kraus shower that space cloth of this impedance reflects 30 percent
of the incident wave."

There must be an impedance discontinuity. Not 377 ohms?

Kraus said sheets of space cloth backed by a reflecting plate are
sandwiched between plastic layers. Kraus has an appendix "D" on
absorbers.

Searching on "Salisbury screens" got me 4578 hits.

Best regards, Richard Harrison, KB5WZI

5026. Re: Digital MiltiLevel Modulations - Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 14:28:36 UTC
From: John Smith <pani@yahoo.com>
Message-ID: <c4c06m$2fkg5h$1@ID-225206.news.uni-berlin.de>
Source record: 97497

Top level--

More bytes through narrow pipe, Faster Data over wireless , more bits sent
per unit time

disadvantages - requires more signal to noise ratio as the number of levels
increases
going from 2 PSK to 16 PSK is a factor of 8 times faster data, but about 6
to 9 dB more signal is required
that is higher transmitter power and/or better receivers (more complexity
and cost)
Similar for most other types of digital modulation too.

"gonzo" <krisrad@wp.pl> wrote in message
news:c4bhb0$g7p$1@atlantis.news.tpi.pl...
> hi,
>
> Can Anyone tell me what are advantage and disadvantage of using this kind
of
> modulation in radio transmition.
> I will be gratefull for any help.
> Thanks and greet from Poland
>
> Gonzo
>
>

5027. Re: Concern about 500 milliwatt amp and Huber+Suhner antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 14:28:47 UTC
From: richardharrison@webtv.net
Message-ID: <28589-4069841F-593@storefull-3254.bay.webtv.net>
Source record: 97498

Chuck Daniels wrote:
"I need a special antenna to overcome triple pane uv glass and 1 mile to wisp.

Search says 2.4 - 5.8 GHz is involved. A dish has no rear radiation. Its directivity and gain are proportional to its size and the size is reasonable since the wavelength is in cm , less than 5 inches.

Depending on frequency and efficiency, a 6-ft dish may give more than 20 dBi gain.

Placement of the dish inside and close to the window may be convenient for connection and obviates wind-loading. Jam up to the window may screen the room for much of the possible reflection. Sceens could be used to deflect other reflections.

High gain may overcome high transmission loss. It`s standard procedure on microwave paths.

Best regards, Richard Harrison, KB5WZI

5028. Re: 10 meter ant impedance at 15 meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 16:34:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4069a205$1_2@corp.newsgroups.com>
Source record: 97499

Cecil Moore wrote:
> On 21.4 MHz, the 10m dipole will have a feedpoint impedance of 200+j450
>
> On 28.4 MHz, the 15m dipole will have a feedpoint impedance of 29-j384

Well, I obviously got these impedances reversed. Should have been:

On 28.4 MHz, the 15m dipole will have a feedpoint impedance of 200+j450

On 21.4 MHz, the 10m dipole will have a feedpoint impedance of 29-j384

Thanks, Jerry, for catching my mistake. But the paralleling advice stands.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5029. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 16:50:43 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4069a5c3_2@corp.newsgroups.com>
Source record: 97500

Tom Bruhns wrote:
> Why go looking for a
> point that's a rough approximation to what we want when we already
> have just what we want?

The point is that we *DON'T* already have what we want. EZNEC is
only an approximation. Most people cannot measure the feedpoint
impedances of their antennas when it is over a few hundred ohms,
so a rule-of-thumb is helpful. The impedance graph in the ARRL
Antenna Book is helpful.

For any SWR above 5:1, A+jA will be relatively close to the maximum
reactance point. Setting A = Rmax/2 will be relatively close to the
behavior of a thin-wire HF dipole at the maximum reactance point
between 1/2WL and one-wavelength. Exactly what is it that you think
"we" already have?

Tom, exactly what are you trying to prove by picking all those nits?
If I say I weigh about 200 pounds, are you going to argue that I
don't weigh 200 pounds - that I acutally weigh 204.3785 pounds?

And you didn't say where you got the 1000+j800 ohm value for the
maximum reactance point. That looks like an unreasonable value
for a thin-wire HF dipole.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5030. Re: Digital MiltiLevel Modulations - Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 16:57:55 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403300857.632b4262@posting.google.com>
Source record: 97501

"gonzo" <krisrad@wp.pl> wrote in message news:<c4bhb0$g7p$1@atlantis.news.tpi.pl>...
> hi,
>
> Can Anyone tell me what are advantage and disadvantage of using this kind of
> modulation in radio transmition.
> I will be gratefull for any help.
> Thanks and greet from Poland

Hi Gonzo,

Probably better to post in rec.radio.amateur.homebrew on this one, if
you have access to that group.

Key advantage: you can communicate more information in less (lower?)
bandwidth. Key disadvantages: you need generally a little "cleaner"
path (it's more suseptable to interference) and/or the encoding and
decoding is more complicated.

Cheers,
Tom

5031. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 17:01:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rd9j605hulj8ideff9ggj1gmmaanq7odlh@4ax.com>
Source record: 97502

On Tue, 30 Mar 2004 10:50:43 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

> EZNEC is only an approximation.

The Great Approximator is arguing against approximation?
Presumably because its solutions are better. But like dissatisfaction
with the weather, you only have to wait for the change:

>Most people cannot measure the feedpoint
>impedances of their antennas when it is over a few hundred ohms,
>so a rule-of-thumb is helpful.

Ah! Back to approximations without references or (dare I say it?)
that measurement that "most" people cannot perform.

>The impedance graph in the ARRL Antenna Book is helpful.

Another approximation and to this point no valid comparisons, merely
testimonial.

> what are you trying to prove by picking all those nits?

And then the Great Nit-Picker finds one:

>That looks like an unreasonable value

Again, testimonial sans reference or measurement.

73's
Richard Clark, KB7QHC

5032. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 17:02:22 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <yKhac.2031$zy.134478@twister.southeast.rr.com>
Source record: 97503

WD40 is awful, Get the deoxit.
"Dave Platt" <dplatt@radagast.org> wrote in message
news:1066sst41190523@corp.supernews.com...
> >I wonder if there is anything other than the $8.95 Radio Shack contact
> >or tuner cleaner that can be used on the Control Unit 'Calibrate'
> >control? How about WD-40 or sylicon spay dry it out with air?
>
> I've heard that WD-40 tends to become gummy after some amount of time,
> and can attract and hold dust and grit. Probably not what you want
> for electrical contacts.
>
> I often use Caig DeOxIt for this sort of cleaning / lubrication /
> treatment process.
>
> >By messing with it the meter sometimes displays the correct location of
> >the beam. Per the previous responses I realize the problem is probably
> >with calibration control located in the rotor - I am not ready to climb
> >the tower and remove the rotor. That is big deal!
>
> If the actual problem is a messed-up position pot / sensor in the
> rotor, then it's likely that nothign you can do down at the control
> box is going to make much difference. I'd guess that by operating the
> "calibrate" switch at the box, you may be sending some small voltage
> or current spikes up the wire to the sensor, and temporarily bridging
> over the grid or dirt or oxidation or whatever else is fouling the
> sensor. If this is the case, the only real remedy is to clean or
> replace the fouled sensor.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

5033. Re: 10 meter ant impedance at 15 meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 17:14:01 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <beGdnTcQt5VON_TdRVn-vg@comcast.com>
Source record: 97504

I have tried various combinations of multiple dipoles fed from a common point, and they all worked. At resonance, the feedpoint impedance will actually be closer to 50 Ohms than for a single dipole.

Note from Cecil's numbers that the other dipole add reactance. You will have to compensate for that by adjusting the lengths of the dipoles. Start with the lower frequency dipole first, but since 10 & 15 are rather close, you might have to go back and forth a few times.

The main thing is to get separation between the ends. Having the two dipoles at right angles would be optimum, but 15 degrees, or so, will work.

If you use Cecil's numbers to calculate the feedpoint impedances, don't forget to convert everything to a parallel equivalence first.

Tam/WB2TT
"Cecil Moore" <Cecil.A.Moore@ieee.ONEDOT.org> wrote in message news:4069a205$1_2@corp.newsgroups.com...
> Cecil Moore wrote:
> > On 21.4 MHz, the 10m dipole will have a feedpoint impedance of 200+j450
> >
> > On 28.4 MHz, the 15m dipole will have a feedpoint impedance of 29-j384
>
> Well, I obviously got these impedances reversed. Should have been:
>
> On 28.4 MHz, the 15m dipole will have a feedpoint impedance of 200+j450
>
> On 21.4 MHz, the 10m dipole will have a feedpoint impedance of 29-j384
>
> Thanks, Jerry, for catching my mistake. But the paralleling advice stands.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5034. attach antenna to ground during lightning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 18:03:47 UTC
From: Dan Jacobson <jidanni@jidanni.org>
Message-ID: <87n05yw6t8.fsf@jidanni.org>
Source record: 97510
Cross-posted to: rec.radio.amateur.antenna,sci.engr.electrical.sys-protection

A lightning storm is approaching. Standard operating procedures are to detach antenna from equipment, and then "attach the antenna to ground".

Maybe they are talking about outside operations at the base of towers. I'm just interested in what to do, without leaving my room, about the dangling cord I have just detached from equipment. Seems to me if I attach it to ground, it will just make the antenna more attractive to lightning strikes, vs. just leaving the cord dangling.

Maybe I will let the end dangle 30 cm from grounding metal, and away from everything else.

5035. Re: I NEED YOUR HELP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 18:19:09 UTC
From: bunnydawg <r.heenan@sympatico.ca>
Message-ID: <X5jac.47295$1A6.879529@news20.bellglobal.com>
Source record: 97508
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,tnn.radio.a

Gary are you related to Bill Turner by chance ?
Yep all capital letters is considered yelling and quite rude.
Robert
VE3 something or other
"J. Yazel" <jyazel@netset.com> wrote in message
news:srqb6093v1d0lg7t4othdl09ud1fq6076d@4ax.com...
> On Fri, 26 Mar 2004 14:37:05 -0700, "Gary C. Cash" <cash@in-tch.com>
wrote:
>
> >TO ALL RADIO AMATEURS:
> >
> >I, ALONG WITH A FRIEND OF MINE, W7ARO (Ed Bodenberger), ARE TRYING TO
> >COMPILE A LIST OF AMATEUR RADIO OPERATORS AND THEIR CALLSIGNS FOR
HISTORICAL
> >PURPOSES. ALL OF THE FOLLOWING NAMES ARE THOSE OF SILENT KEYS FOR WHICH
WE
> >HAVE NO CALLSIGN AVAILABLE AND ALL ARE FROM MONTANA. IF YOU HAVE AT
SOMETIME
> >WORKED ANY OF THESE INDIVIDUALS AND HAVE RECORD OF A CALLSIGN YOU
RESPONSE
> >WOULD BE GREATLY APPRECIATED.
> >
> >TOM GIBSON
> >HAROLD PETERSON
> >ED BINGLER
> >RON WRIGHT
> >BILL MONEYSMITH
> >PHIL HAGMAN
> >OSCAR RICE
> >
> >73's
> >GARY
> >WQ7S
> >cash@in-tch.com
> > ==
>
> Hi Gary,
>
> I can't help you yet, but in the meantime, please don't use
> all capital letters. It is considered to be shouting.
>

> Thanks and 73s.
>
> Jack W8RAG
>
>

5036. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 18:19:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.ONEDOT.org>
Message-ID: <4069ba94$1_5@corp.newsgroups.com>
Source record: 97505

Richard Clark wrote:

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>EZNEC is only an approximation.
>
> The Great Approximator is arguing against approximation?

On the contrary. Most of our models are approximations.
Exactly what is your agenda in rejecting approximations?
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5037. Re: Any Suggestions For Relatively Simple & Basic Antenna Modeling Prog's ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 18:40:19 UTC
From: pw342@hotmail.com
Message-ID: <5f7b361.0403301040.6952aa2d@posting.google.com>
Source record: 97506

Bob, I suggest you try my free demo version of Nec2.
The demo is restricted to 20 segments total but will analyze dipoles just fine.

Please visit: www.nec2go.com

Patrick W. W0OPW

5038. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 18:46:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o0gj60pid2054962257836gpi8csv3a0p6@4ax.com>
Source record: 97507

On Tue, 30 Mar 2004 12:19:34 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>Richard Clark wrote:
>
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>EZNEC is only an approximation.
>>
>> The Great Approximator is arguing against approximation?
>
>On the contrary. Most of our models are approximations.
>Exactly what is your agenda in rejecting approximations?

On Tue, 30 Mar 2004 10:50:43 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:

>EZNEC is
>only an approximation.

5039. Announcement: New Nec2 modeling available - Nec2Go

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 18:55:08 UTC
From: pw342@hotmail.com
Message-ID: <5f7b361.0403301055.33206e3e@posting.google.com>
Source record: 97509

I am posting this to the group for those that need a simple Nec2 analyzer. Although this is a commercial program, there are those who would like a free demo version to do simple analysis. The download is less than 1 meg in size and has features not found in other products - and is simpler to use.

The following list of features are built into the base product:
True Modeling by Equation using algebraic statements.
Main, Edit, View, 2d-plot, and 3d-plot screens plus Tools and Help.
Run Output, SWR, Gain and Sweep results on Main screen.
Shift and Rotate functions applied to wire definitions.
Automatic Segment generation (Absolute segment numbers are never used).
Auto Segment Tapering(AST) option for fast calculations.
Simple Convergence Test function.
Variable definitions in Wires, Sources, Loads, and Transmission Line statements.
Variable substitution in Sweep or View mode regenerates the model.
Unlimited Wires, Segments, Sources, Loads to Nec.
User defined Coax entries (including loss factor).
Transmission line(Coax) and Network loss calculations.
Network definitions for L-Net, T-Net and Pi-Net.
Network Designer to automatically build NT: statements.
Ground types of: Free Space, Perfect Ground, Reflection-Coefficient, Sommerfeld-Norton, and Ground Wave supported.
View includes rotating, zooming, currents on wires, and AGT(Average Gain Test)
2D Plot overlay of alternate models and sweep views.
3D Plot includes computed Total Average Gain for RDF(Receiving Directivity Factor)
Automatic plotting at angles of maximum gain, or manual Az/El plots.
Coil Designer utility converts Reactance to Inductance or Capacitance.
Screen Print capability.
LAPACK routines for FACTOR and SOLVE (speeds up execution time)
Windows compliant with no Dos executable.
Context Sensitive Help for all screens and controls.

Please visit www.nec2go.com

Pat Wintheiser W0OPW

5040. ladder line construction methods?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 19:52:50 UTC
From: Larry Gagnon <lagagnon@fakeuniserve.com>
Message-ID: <106jk0i6t2ibl1e@corp.supernews.com>
Source record: 97511

Hello to all. I intend to erect an 80 meter full size dipole and feed it with homebrew open ladder line. Would anyone care to reply as to how to construct ladder line easily and effectively? How does one determine spacing to get X ohms impedance line?

Also any ideas on how such line can easily be fed in through a window with a wood frame would be greatly appreciated.

Larry Gagnon VE7EA

--
****
to reply via email remove "fake"

5041. Re: Wireless network

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 21:48:15 UTC
From: trash@cad.3guys.net
Message-ID: <2481713a.0403301348.4cedc802@posting.google.com>
Source record: 97512

Thank you both Dave and Alex.

RE Dave's post.

I think you are right. 1 watt at the base of the antenna is what you are allowed. So you think that the total dbm I can run is 36 for omni? Is there a height limit to that?

Re Omni verses directional.

I would not mind doing directional. I just did not know how to add different directions. Can you do several antenna easily? In either case, omni or direct I always planned on running the signal through wire (well both wire and wireless off another router.) once I got to the building. My big problem is I can not find a site that will tell me in plain language what parts I need to get this stuff to an antenna. I can do all the network stuff but this signal stuff is just kicking my butt. I know want to setup the most complicated/powerfull omni I can at a reasonable price just so I understand the distances it will travel.

Re Alex's post

While not a amateur radio person at heart I am a experimenter. I have looked at serveral sites that show how to turn a pringle can http://www.turnpoint.net/wireless/has.html into an antenna to an old primestar dish http://www.wwc.edu/~frohro/Airport/Primestar/Primestar.html . Once I know more info I fully intend to play with all this and more. I am just having problems finding all the parts. Well best parts best info. All that stuff.

I figure poeple like you and Dave may know where to find sites that will put all this info in laymans terms.

Once again. Thank you all.

5042. Re: Concern about 500 milliwatt amp and Huber+Suhner antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 22:19:40 UTC
From: nyresource@hotmail.com
Message-ID: <64906530.0403301419.3e2e8733@posting.google.com>
Source record: 97513

Unfortunately I can't mount the antenna outside, since I am in a
30-story building with no option for mounting things outside. If part
of the energy radiates back into the apartment is that really
dangerous or is it reasonably diffused?

Also, does the YDI amp give off a lot of energy? I just have it and
the dc injector sitting on a shelf near the antenna.

Thanks

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<28589-4069841F-593@storefull-3254.bay.webtv.net>...
> Chuck Daniels wrote:
> "I need a special antenna to overcome triple pane uv glass and 1 mile to
> wisp.
>
> Search says 2.4 - 5.8 GHz is involved. A dish has no rear radiation. Its
> directivity and gain are proportional to its size and the size is
> reasonable since the wavelength is in cm , less than 5 inches.
>
> Depending on frequency and efficiency, a 6-ft dish may give more than 20
> dBi gain.
>
> Placement of the dish inside and close to the window may be convenient
> for connection and obviates wind-loading. Jam up to the window may
> screen the room for much of the possible reflection. Sceens could be
> used to deflect other reflections.
>
> High gain may overcome high transmission loss. It`s standard procedure
> on microwave paths.
>
> Best regards, Richard Harrison, KB5WZI

5043. FREE in the Silver Spring, MD area

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 22:50:24 UTC
From: "R.A. & G.D. Whiting" <gdwhiting@erols.com>
Message-ID: <4069fa3e$0$3055$61fed72c@news.rcn.com>
Source record: 97514

1) KLM 2 meter crossed yagi for satellite work

2) Alliance rotor with boom for elevation rotor for satellite work.

3) Homemade 432 crossed yagis (NBS) for satellite work.

These must move quickly.

Al K3BRS

5044. Re: attach antenna to ground during lightning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 23:01:42 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <r%mac.35470$_U.11010@lakeread05>
Source record: 97515

"Dan Jacobson" <jidanni@jidanni.org> wrote in message
news:87n05yw6t8.fsf@jidanni.org...
> A lightning storm is approaching. Standard operating procedures are
> to detach antenna from equipment, and then "attach the antenna to
> ground".
>
> Maybe they are talking about outside operations at the base of towers.
> I'm just interested in what to do, without leaving my room, about the
> dangling cord I have just detached from equipment. Seems to me if I
> attach it to ground, it will just make the antenna more attractive to
> lightning strikes, vs. just leaving the cord dangling.
>
> Maybe I will let the end dangle 30 cm from grounding metal, and away
> from everything else.

Dan, from everything written in the extensive posts of this group (see "Lightning xx" posts of early 2004) the attraction is already there, only you invite it into all parts of your shack whether 30cm or not with an open feedline. Grounding or disconnecting the antenna outside was preferred by most experts here, but I have a friend who was devastated by lightning even though he did that from his tower. So mine are now grounded inside to a very, very low impedance path to deep ground rods, as are all equipment in the shack. Since you are not talking about a tower, you probably have more chance of being struck on the house or rooftop masts than outside dipoles strung between trees with buried feedlines, as is the case with my systems.

Jack

5045. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 23:36:57 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.org>
Message-ID: <406a04fa_8@corp.newsgroups.com>
Source record: 97516

Richard Clark wrote:
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>Richard Clark wrote:
>>>The Great Approximator is arguing against approximation?
>>
>>On the contrary. Most of our models are approximations.
>>Exactly what is your agenda in rejecting approximations?
>
> On Tue, 30 Mar 2004 10:50:43 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>EZNEC is only an approximation.

What's the matter, Richard? Can't you answer the question? There is
absolutely nothing wrong with being "only an approximation". That is
not a negative statement. Too bad you have never learned that everytime
you make a measurement, you make an error. There are no 100% accurate
measurements. Everything except cardinal numbers is an approximation.
--
73, Cecil, W5DXP

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5046. Re: ladder line construction methods?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-30 23:38:34 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.org>
Message-ID: <406a055a_8@corp.newsgroups.com>
Source record: 97517

Larry Gagnon wrote:

> Hello to all. I intend to erect an 80 meter full size dipole and feed
> it with homebrew open ladder line. Would anyone care to reply as to how
> to construct ladder line easily and effectively? How does one determine
> spacing to get X ohms impedance line?

Spacing is not critical. How about a 4" spacer made out of irrigation
plastic tubing?
--
73, Cecil, W5DXP

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

5047. Re: attach antenna to ground during lightning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 00:01:26 UTC
From: lesgranddish@yahoo.fr
Message-ID: <c99ccb2e.0403301601.2b0ae2f8@posting.google.com>
Source record: 97518
Cross-posted to: rec.radio.amateur.antenna,sci.engr.electrical.sys-protection

Dan Jacobson
> ...what to do...
> ...about the dangling cord...

I had a foot-long (happened to see it!) lightning-induced spark jump
from the disconnected and dangling antenna cable, RG8 coax from my 80m
dipole, onto the Morse code key cable. It killed four T/R switching
transistors in my rig - all associated with the key input. Eventually
fixed the rig myself...phew!

I guess I should have dangled the antenna cable just a bit further
away from the expensive things - he he.

73.

PS - don't disconnect it DURING the lightning storm...

5048. Re: 10 meter ant impedance at 15 meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 00:11:48 UTC
From: k9sqg@aol.com
Message-ID: <20040330191148.04435.00000383@mb-m17.aol.com>
Source record: 97419

It might be simpler to use open wire feedline and a link coupled tuner or tuner with a balun in the shack...

5049. Re: ladder line construction methods?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 00:28:20 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <406A10A4.5918545F@cwis.net>
Source record: 97420

Larry,
Boy, are you gonna have fun! As Cecil said, spacing isn't all that critical. Use whatever you can find enough of, to make the 'spreaders', as long as it's not conductive it should work. The simplest way to feed ladder line through a window is to make a 'spacer' board to fit in the window. Drill a couple of holes in the board, the correct distance apart, feed the line through the holes, 'hot glue' in place (or however you can get it to stay put. Have to remove the screen...
'Doc

PS - The real 'trick' is to keep the line from 'swarming' on you when you finish.

5050. Re: attach antenna to ground during lightning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 00:30:06 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <406A110E.C3964896@cwis.net>
Source record: 97421

Dan,
Tie a string on the end of it and then throw it out the
window (hang onto the string).
'Doc

5051. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 01:08:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ec6k60lfe5h9lravg9nviuhlosm5ait7cb@4ax.com>
Source record: 97422

On Tue, 30 Mar 2004 17:36:57 -0600, Cecil Moore
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>Richard Clark wrote:
>>>>The Great Approximator is arguing against approximation?
>>>
>>>On the contrary. Most of our models are approximations.
>>>Exactly what is your agenda in rejecting approximations?
>>
>> On Tue, 30 Mar 2004 10:50:43 -0600, Cecil Moore
>> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>>>EZNEC is only an approximation.
>
>What's the matter, Richard? Can't you answer the question?
On Tue, 30 Mar 2004 10:50:43 -0600, Cecil Moore
<Cecil.A.Moore@ieee.ONEDOT.org> wrote:
>EZNEC is only an approximation.

5052. Re: ladder line construction methods?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 01:43:04 UTC
From: k7itm@aol.com
Message-ID: <3200347.0403301743.3bf70534@posting.google.com>
Source record: 97423

Impedance is about 120*ln(2*D/d) ohms, where ln is the natural logarithm, and D is the wire spacing, center to center, and d is the wire diameter. Assumes round wires, and air dielectric. You can rearrange that: if you want x ohms and have d diameter, D = d*exp(x/120)/2, where exp(x/120) is "e to the x/120 power". If you don't have a calculator that handles that sort of math, this table will probably get you close enough:

D/d impedance, ohms
1.9 150
2.8 200
6.2 300
22 450
75 600

Construction depends a bit on how much you're making and what you have available for materials and tools. People used to use wooden spacers, boiled in parafin wax. Someone gave me a bunch of PETE tensile-strength test strips that are a good size. You can make spacers from PVC pipe. You can thread wires through holes (generally not so efficient), or fit wires into notches and secure by with a plastic or wire wrap, or by melting the wire into an undersized notch, or with various glues. Undoubtedly lots of other ideas, both tried-and-true and just waiting to be tried for the first time.

You can drill holes through the glass and install feedthroughs (but probably not if it's double-pane!), or drill a couple over-size holes through the wall or possibly through a wooden window frame member, or install a wood or plastic piece in a partially-open window. You can also possibly inductively or capacitively couple through the window. If you decide to go through wood or wall materials, plan to make oversized holes, lined with decent electrical/RF insulation. What strikes your fancy?

Cheers,
Tom

Larry Gagnon <lagagnon@fakeuniserve.com> wrote in message news:<106jk0i6t2ibl1e@corp.supernews.com>...
> Hello to all. I intend to erect an 80 meter full size dipole and feed
> it with homebrew open ladder line. Would anyone care to reply as to how
> to construct ladder line easily and effectively? How does one determine
> spacing to get X ohms impedance line?
>
> Also any ideas on how such line can easily be fed in through a window
> with a wood frame would be greatly appreciated.

>
> Larry Gagnon VE7EA

5053. Re: ladder line construction methods?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 02:37:17 UTC
From: jgboyles@aol.com
Message-ID: <20040330213717.17034.00000396@mb-m28.aol.com>
Source record: 97424

>Would anyone care to reply as to how
>to construct ladder line easily and effectively? How does one determine
>spacing to get X ohms impedance line?

One of many ways is to use plastic coathangers for spacers. These are
readily available, and have the added advantage that you can choose your color.
Just chop them up to whatever spacing you desire.
If you are planning on just a single band antenna, I would feed it with coax.
However, if you are going multi-band with a tuner, use the open wire line.
The Impedance is not critical. Use 2" to 6" spacing.
73 Gary N4AST

5054. Re: ladder line construction methods?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 03:18:47 UTC
From: Bob Miller <bxmiller@texas.netNOSPAM>
Message-ID: <drdk60ptd7ulaumdt41j9a85at1776fmnc@4ax.com>
Source record: 97426

On Tue, 30 Mar 2004 19:52:50 -0000, Larry Gagnon
<lagagnon@fakeuniserve.com> wrote:

>Hello to all. I intend to erect an 80 meter full size dipole and feed
>it with homebrew open ladder line. Would anyone care to reply as to how
>to construct ladder line easily and effectively? How does one determine
>spacing to get X ohms impedance line?
>
>Also any ideas on how such line can easily be fed in through a window
>with a wood frame would be greatly appreciated.
>
>Larry Gagnon VE7EA

As an alternative, you can try the website for w7fg. He makes and
sells open ladder line, as well as dipoles with the ladder line
attached.

bob
k5qwg

5055. Re: attach antenna to ground during lightning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 03:30:03 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <%Wqac.141022$1p.1821338@attbi_s54>
Source record: 97425

'Doc wrote:

>
> Dan,
> Tie a string on the end of it and then throw it out the
> window (hang onto the string).
> 'Doc

Ben Franklin already ran that experiment!!

5056. ideal shape of Yagi elements

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 03:40:23 UTC
From: Dan Jacobson <jidanni@jidanni.org>
Message-ID: <87brmdvg48.fsf@jidanni.org>
Source record: 97379

Just curious, what is the result of computer modeling for the ideal
shape of Yagi elements? I couldn't just be simple tubes.

5057. Re: Concern about 500 milliwatt amp and Huber+Suhner antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 04:19:50 UTC
From: richardharrison@webtv.net
Message-ID: <19867-406A46E6-208@storefull-3258.bay.webtv.net>
Source record: 97429

Chuck Daniels wrote:
"If part of the energy radiates back into the apartment is that really dangerous or is it reasonably difused?"

The latter is likely. A dish focuses the microwave energy into a narrow beam. It is like a spotlight. I seem to remember an output of -27dBm (1/2 watt) which is puny. Your microwave oven likely produces 1000x more power, and this is confined to a small volume.

Some of the dish`s beam may bounce back from the glass into the room, but it loses 22dB in the first wavelength (about 5 inches?) back from the reflection, and then 6dB more every time the distance doubles after that. I wouldn`t worry or if I did, I would simply interdict the energy with suitable screening.

Most of the power developed by the microwave transmitter should reach the antenna or be shielded from direct radiation into the transmitter room. A microwave oven leakage meter as sold in the past by Radio Shack can be used to detect r-f around the transmitter, in the dish beam, and reflected from the glass. They are cheap and they work.

A 1/2-watt transmitter is no big deal. When I started working with microwave, the set consisted of (2) 0.1 watt klystrons. One was a repeller modulated FM transmitter. The other was a local oscillator to mix with the received carrier from the distant transmitter in a 1N23 silicon mixer diode to feed the I-F amplifier, limiters, and discriminator.

The above radios could carry 600 or 1200 voice channels via frequency division multiplex over a distance of 20 or 30 miles with few problems and with high reliability.

We later got 5-watt klystron transmitters which were superseded by all solid-state sets. Klystrons are no limitation to power. The most powerful vacuum tube ever made was a klystron. Klystrons serve very well in TV transmitters of enormous power. for line-of-sight point to point service, high power is unecessary.

Best regards, Richard Harrison, KB5WZI

5058. Re: Hugh antenna in Bergen County New Jersey

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 04:23:06 UTC
From: bunnydawg <r.heenan@sympatico.ca>
Message-ID: <fYrac.50802$1A6.1103618@news20.bellglobal.com>
Source record: 97428

I just found this recently and it's a rather interesting site to find out
who owns a tower. Kinda neat have a look.
http://www.berkana.com/tower.php3

Robert
VE3 something or other

"New & Improved - N/F John" <trompiano2000@yahoo.com> wrote in message
news:404bdb63$0$3101$61fed72c@news.rcn.com...
> I live in Passaic County in New Jersey and I can see a hugh red and white
> antenna east of my location. I can't tell how far it is but it is far.
> From Clifton I can see Garfield and the antenna is in that direction.
>
> Anybody have any clues?
>
>

5059. US Tower/Yaesu 800 rotor problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 04:30:55 UTC
From: Billy <billy@cmaaccess.com>
Message-ID: <406a50e4$0$32586$2c56edd9@news.cablerocket.com>
Source record: 97427

I am having a problem. I am in the process of installing my US Tower tmm 541ss. I have the yaesu 800sdx rotor. When I hook the rotor cable to the side of the rotor, it sticks out just enough that the tower will not go all the way down. If I let the tower down, it will break the end of the plug off. I tried turning the rotor, but this only moved the problem. Does anyone know of a solution to this problem. I am sure I am not the only one who has ran into this. I sent US Tower an email asking their advice, but of course I haven't heard anything from them. Does anyone know if Yaesu sells/makes a plug at a 90-degree angle or anything? According to the paperwork with the tower, they suggest the Yaesu 800 rotor. If you have any suggestions please email me direct. billyatcmaaccess.com. Of course replace at with @ to hold down the spam. Thanks in advance for any help.

Best 73.....WR5X

5060. Re: CB Radios, Cellphones and Gasoline Vapor Ignition

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 07:11:28 UTC
From: jwill@AstraGate.net
Message-ID: <4032bf27.0403302311.4cd727e@posting.google.com>
Source record: 97430
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.design,sci.electronics.basics

Jeff Liebermann <jeffl@comix.santa-cruz.ca.us> wrote in message
news:<ofhq50dfqlmeto169hrsj8f3e0n8eaab09@4ax.com>...
> On 20 Mar 2004 23:28:38 -0800, jwill@AstraGate.net (John Michael
> Williams) wrote:
>
> >Ships around the turn of the 20th century transmitted morse code by
> >spark, I think.
>
> The Lusitania, Mauritania, Titanic, and Olypic all ran on coal. No
> gasoline in sight. Later vessels ran on bunker C fuel oil, which is
> more like tar than gasoline. I don't think one has to worry about
> sparks on such a vessel unless it's finely devided coal dust, which
> finished off the Lusitania in a secondary explosion after the torpedo.
>
> >Interesting idea. I would have thought that a tube would require
> >more V than a neon lamp to get started. I'll try it if I can
> >find a lamp.
>
> Neon lamp needs about 60 volts to light and 40 volts to stay lit. The
> 4 watt flourescent tube wants at least 90 volts to start, and I think
> (i.e. guess) about 50 volts to stay lit.
>
> >What you seem to be suggesting is that I simply connect the
> >lamp to the 1/4 wave receiving antenna, right? Why introduce
> >my hand? For ground on the other lamp contact?
>
> Yep. You're the ground. You should be fine with a 5 watt CB and a 1/4
> wave whip. The high voltage point is near the tip. However, don't
> try it with an illegal CB linear. You'll get an RF burn for your
> troubles.
>
> Incidentally, there are cell phone antennas with lights in them.
> http://cellphones-accessories.com/12stobligcel.html
> They're LED's which require much less power to light than a 4 watt
> flourescent bulb. Still, it's kinda interesting.
>
> >I don't see the point of attaching a long
> >wire to the CB, because they don't come with long bare wires.
> >Clearly, I could get a good spark by attaching a wire to the
> >CB batteries, and avoid all the RF stuff!
>
> Exactly. Same with an open relay contact or toggle switch. However,
> don't foget that you need containment to create an explosion.

> Sparking the DC inside the trunk is the mostly likely location.
>
> >22 V is a lot more than I could get with a 1 m monopole: I only
> >got 100 mV peak to peak.
>
> The 22 volts peak is at the RF connector. I'm assuming that if there
> is a spark gap, it will be in the coax cable or associated antenna
> connectors.
>...

I finally got hold of a 4 W fluorescent lamp (Coleman 12V lantern
replacement; H-F4T5D(3)). I attached a 2.7 m bare copper
wire to one end of it and tried holding the other end
in my hand while keying on Channel 40. No obvious effect.

John
jwill@AstraGate.net
John Michael Williams

5061. Re: attach antenna to ground during lightning

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 10:37:13 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <406A9F59.314FE04C@cwis.net>
Source record: 97431

Dave,
Yes! Shocking, isn't it?
'Doc

5062. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 11:54:56 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <gkyac.18244$Q45.9667@fed1read02>
Source record: 97432

"Al Lorona" <al_lorona@agilent.com> wrote in message
news:1080624436.148837@cswreg.cos.agilent.com...
>
> > The 297 hits on Google for "radar absorbent material" was information
> > overload? The 3,730 hits for "RF anechoic material" frightened you? And
> the
> > 70,100 hits for "stealth aircraft design" sent you scurrying here to see
> if
> > we had anything for you?
> >
> > At least it's nice to see you doing your homework before Sunday night.
> >
> > Ed
> > wb6wsn
> >
>
> Wow. Good thing Frank is a seasoned ham; had he been a newbie you would
> have just chased him from ham radio. Congratulations, Elmer!
>
> Al W6LX
>
>
>

Don't be an apologist for people who ask stupid or ill-phrased questions. Don't pander to the lowest level. I provided a reply which I thought was appropriate to the question. It was slightly sarcastic, though, by Usenet standards, reasonably civilized. It provided three direct lines of search for what was a very nebulous and obvious query. At no point did I attack the poster, demean his mentality, question his civilization, or impugn the length of his manhood.

Further, I hope your self-worth is well seasoned, or at least insulated, as you don't seem to understand the difference between Usenet and Ham Radio. Cranking off a dumb query on Usenet is equivalent to tuning up on a repeater or net frequency. It's a bad use of electrons, and you can expect to be chastised.

Perhaps I shouldn't be so harsh with you, as you can't seem to follow the thread. If you were, you would have noticed that I provided considerable background on RF absorbent material in a subsequent post.

Now, do YOU have anything informative to add to the subject, or are you just trolling for sympathy? BTW, in addition to being in the dictionary, "sympathy" yields about 3,700,000 hits on Google. Now there's a project for

your dotage.

Ed
wb6wsn

5063. Re: Flakey Ham IV Indicator

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 12:01:52 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-6CFC1B.06015231032004@newssvr23-ext.news.prodigy.com>
Source record: 97433

Thanks for the recommendation. FYI, the problem is history and noted in
my other posting. The combination of spraying the Calibrate pot and
fixing where he lamp was shorting to the case FIXED the problem. It now
works like new. I used the RS cleaner but will keep the deoxit in mind
for other projects. At least I did not have to climb the tower to fix
the problem

dick aa5vu

In article <yKhac.2031$zy.134478@twister.southeast.rr.com>,
"Jimmy" <Gfender@carolina.rr.com> wrote:

> WD40 is awful, Get the deoxit.
> "Dave Platt" <dplatt@radagast.org> wrote in message
> news:1066sst41190523@corp.supernews.com...
> > >I wonder if there is anything other than the $8.95 Radio Shack contact
> > >or tuner cleaner that can be used on the Control Unit 'Calibrate'
> > >control? How about WD-40 or sylicon spay dry it out with air?
> >
> > I've heard that WD-40 tends to become gummy after some amount of time,
> > and can attract and hold dust and grit. Probably not what you want
> > for electrical contacts.
> >
> > I often use Caig DeOxIt for this sort of cleaning / lubrication /
> > treatment process.
> >
> > >By messing with it the meter sometimes displays the correct location of
> > >the beam. Per the previous responses I realize the problem is probably
> > >with calibration control located in the rotor - I am not ready to climb
> > >the tower and remove the rotor. That is big deal!
> >
> > If the actual problem is a messed-up position pot / sensor in the
> > rotor, then it's likely that nothign you can do down at the control
> > box is going to make much difference. I'd guess that by operating the
> > "calibrate" switch at the box, you may be sending some small voltage
> > or current spikes up the wire to the sensor, and temporarily bridging
> > over the grid or dirt or oxidation or whatever else is fouling the
> > sensor. If this is the case, the only real remedy is to clean or
> > replace the fouled sensor.
> >
> > --
> > Dave Platt <dplatt@radagast.org> AE6EO
> > Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> > I do _not_ wish to receive unsolicited commercial email, and I will
> > boycott any company which has the gall to send me such ads!

5064. Re: US Tower/Yaesu 800 rotor problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 12:27:19 UTC
From: Dave Shrader <david.shrader@comcast.net>
Message-ID: <HOyac.150434$po.892266@attbi_s52>
Source record: 97434

Contact Yaesu, Vertex Standard, and request the 90 degree body and
backshell. There is a small cost.

Billy wrote:
> I am having a problem. I am in the process of installing my US Tower tmm
> 541ss. I have the yaesu 800sdx rotor. When I hook the rotor cable to the
> side of the rotor, it sticks out just enough that the tower will not go all
> the way down. If I let the tower down, it will break the end of the plug
> off. I tried turning the rotor, but this only moved the problem. Does
> anyone know of a solution to this problem. I am sure I am not the only one
> who has ran into this. I sent US Tower an email asking their advice, but of
> course I haven't heard anything from them. Does anyone know if Yaesu
> sells/makes a plug at a 90-degree angle or anything? According to the
> paperwork with the tower, they suggest the Yaesu 800 rotor. If you have any
> suggestions please email me direct. billyatcmaaccess.com. Of course
> replace at with @ to hold down the spam. Thanks in advance for any help.
>
> Best 73...........WR5X
>
>
>
>

5065. Another Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 14:07:29 UTC
From: Marvin Rosen <puns@verizon.net>
Message-ID: <BgAac.23494$u_2.10084@nwrddc01.gnilink.net>
Source record: 97435

Should one disconnect an outside buried ground
to their indoor equipment during a storm? I was
under the impression that static/lightning can still
get to your equipment thru your gnd system?

5066. Re: ladder line construction methods?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 15:58:12 UTC
From: Lloyd Mitchell <lloydm75@hotmail.com>
Message-ID: <BMBac.88$OU3.12@bignews2.bellsouth.net>
Source record: 97436

I have a G5RV made by W7FG. The construction is great and makes structural sense. I can recommend his version highly.

Its easy to put up and you dont have to worry about the center connection coming loose..*there is no center connection*

He uses one continuous wire from feeder to end of the dipole on each side..smart...

Mitch KD4HTW

"Bob Miller" wrote:
As an alternative, you can try the website for w7fg. He makes and
> sells open ladder line, as well as dipoles with the ladder line
> attached.
>
> bob
> k5qwg
>
>

5067. Re: Concern about 500 milliwatt amp and Huber+Suhner antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 16:06:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v4ql60pkeesdfsmmthpje9q723g3vutink@4ax.com>
Source record: 97437

On Tue, 30 Mar 2004 22:19:50 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:
>Some of the dish`s beam may bounce back from the glass into the room,
>but it loses 22dB in the first wavelength (about 5 inches?) back from
>the reflection, and then 6dB more every time the distance doubles after
>that. I wouldn`t worry or if I did, I would simply interdict the energy
>with suitable screening.

Hi Richard,

This characteristic is incorrectly applied. The 22dB is not "lost,"
it is simply unavailable to a dipole that could accept the power. The
concern is with tissue absorption, not tuned, directional antenna
elements. Further, it is not "lost" given that if it is a nuisance
through reflection, there are as many re-reflection opportunities
available within the region into which it has been reflected
(provided, of course, that room is not an anechoic chamber). This,
then, renders the room into a gross dimensioned, lossy microwave oven.

Some of the reflected power will be absorbed by the walls, the
furnishings, be "lost" out the same window it reflected from; and yes,
absorbed by the turkey.

Chuck,

Our best advice has been given, carry an NE-2 neon lamp, observe it
glowing to tell when you are "done."

Let's put some real perspective to this. We are talking about all of
500mW? Let's boost that 15 fold to 7.5W, concentrate it into a patch
of 1 square inch. Now, imagine the sensation of holding a lit
christmas tree bulb (the traditional big ones). Do those prospects
bring terror? Pain? Annoyance? A mild warmth? Now turn down the
burners to that original half watt.

The common experience of a christmas past should quite capably guide
you at this point.

73's
Richard Clark, KB7QHC

5068. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 16:27:20 UTC
From: Cecil.A.Moore@ieee.org
Message-ID: <9001ac09.0403310827.759d4ff4@posting.google.com>
Source record: 97438

Richard Clark <kb7qhc@comcast.net> wrote:

> <Cecil.A.Moore@ieee.org> wrote:
> >What's the matter, Richard? Can't you answer the question?

> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >EZNEC is only an approximation.

You have obviously missed the point. There's absolutely nothing wrong
with an approximation. That includes EZNEC and my rule-of-thumb.
"EZNEC is only an approximation", is NOT a negative statement any more
than, "You are only a man", is a negative statement. Everything,
including precise measurements with expensive instruments, has
limitations.
--
73, Cecil, W5DXP

5069. Re: US Tower/Yaesu 800 rotor problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 16:30:53 UTC
From: Billy <billy@cmaaccess.com>
Message-ID: <406af9a4$0$32594$2c56edd9@news.cablerocket.com>
Source record: 97439

Thanks for the advice. I called Yaesu direct, and they don't have any idea what I am talking about. Sales refered me to tech support. Tech support checked and called me back to let me know they don't offer a 90 degree anything. Would you happen to know the part number?

"Dave Shrader" <david.shrader@comcast.net> wrote in message news:HOyac.150434$po.892266@attbi_s52...
> Contact Yaesu, Vertex Standard, and request the 90 degree body and
> backshell. There is a small cost.
>
> Billy wrote:
> > I am having a problem. I am in the process of installing my US Tower tmm
> > 541ss. I have the yaesu 800sdx rotor. When I hook the rotor cable to the
> > side of the rotor, it sticks out just enough that the tower will not go all
> > the way down. If I let the tower down, it will break the end of the plug
> > off. I tried turning the rotor, but this only moved the problem. Does
> > anyone know of a solution to this problem. I am sure I am not the only one
> > who has ran into this. I sent US Tower an email asking their advice, but of
> > course I haven't heard anything from them. Does anyone know if Yaesu
> > sells/makes a plug at a 90-degree angle or anything? According to the
> > paperwork with the tower, they suggest the Yaesu 800 rotor. If you have any
> > suggestions please email me direct. billyatcmaaccess.com. Of course
> > replace at with @ to hold down the spam. Thanks in advance for any help.
> >
> > Best 73.....WR5X
> >
> >
> >
> >
>

5070. Re: 10 meter ant impedance at 15 meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 16:39:45 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <RNOdnQr7fpDVaffdRVn-tA@comcast.com>
Source record: 97440

"K9SQG" <k9sqg@aol.com> wrote in message
news:20040330191148.04435.00000383@mb-m17.aol.com...
> It might be simpler to use open wire feedline and a link coupled tuner or
tuner
> with a balun in the shack...

The whole idea is that he does not need a tuner, except possibly the high end of 10m, and the radio's built in tuner should suffice for that.

BTW, you do not want to use RG58 in lengths greater than about 2 meters. If you want to keep costs down, buy generic RG8 Foam.

Tam/WB2TT

5071. Re: RF absorbent

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 16:59:37 UTC
From: tdonaly@aol.com
Message-ID: <20040331115937.21296.00000347@mb-m19.aol.com>
Source record: 97441

Ed wrote,
>
>Don't be an apologist for people who ask stupid or ill-phrased questions.
>Don't pander to the lowest level. I provided a reply which I thought was
>appropriate to the question. It was slightly sarcastic, though, by Usenet
>standards, reasonably civilized. It provided three direct lines of search
>for what was a very nebulous and obvious query. At no point did I attack the
>poster, demean his mentality, question his civilization, or impugn the
>length of his manhood.
>
>Further, I hope your self-worth is well seasoned, or at least insulated, as
>you don't seem to understand the difference between Usenet and Ham Radio.
>Cranking off a dumb query on Usenet is equivalent to tuning up on a repeater
>or net frequency. It's a bad use of electrons, and you can expect to be
>chastised.
>
>Perhaps I shouldn't be so harsh with you, as you can't seem to follow the
>thread. If you were, you would have noticed that I provided considerable
>background on RF absorbent material in a subsequent post.
>
>Now, do YOU have anything informative to add to the subject, or are you just
>trolling for sympathy? BTW, in addition to being in the dictionary,
>"sympathy" yields about 3,700,000 hits on Google. Now there's a project for
>your dotage.
>
>Ed
>wb6wsn
>

Aha! Another pompous, sarcastic, smug, overbearing, insufferable post from
a
gentleman whose acumen is as nebulous as his reply is asinine. You should
get a job at a community college, Ed. College students are inured to your
particular brand of snide, demeaning discourse, since many teachers use
it as a technique for avoiding having to answer questions requiring knowledge
those teachers don't possess.
73,
Tom Donaly, KA6RUH

5072. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 17:29:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s2vl60psrr47do06kk2gcoe0a561bnqc0a@4ax.com>
Source record: 97442

On 31 Mar 2004 08:27:20 -0800, Cecil.A.Moore@ieee.org (Cecil Moore) wrote:

>Everything,
>including precise measurements with expensive instruments, has
>limitations.

I note no measurement with instruments, expensive nor inexpensive, no expression of limitations, no references - simply innuendo. Innuendo is not approximation. There is no discussion as to the genesis of this "approximation." There is no data garnered by experiment to support it. There are no correlatives to associate it. Nothing educational, no generality. As such, all the quality of the Old Wife's Tale.

I believe Tom's point was that more information was known or available preceding the "approximation" than following it, which portrays the "approximation" as a degradation of knowledge. The process of the "approximation" has so many constraints as to fall out of the field of a generality, which is the common understanding of "approximation."

73's
Richard Clark, KB7QHC

5073. Re: ladder line construction methods?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 17:54:45 UTC
From: KA9CAR <ka9car@a_r_r_l_.net>
Message-ID: <c4f0l7$kq4$1@news1.tribune.com>
Source record: 97443

I made some ladder line last year. It works well, but was very time consuming. I now buy it.

I purchased wire "staples" These are plastic bridges with holes for nails. You pull out the nails and install your feed line.

There is a photo of a 1/2 inch section at this URL.

http://user.mc.net/~jdewey/Ham_radio/grounding_relay.jpg

I used larger staples for my main feed line.

http://user.mc.net/~jdewey/Ham_radio/doublet.jpg

John
KA9CAR

"Bob Miller" <bxmiller@texas.netNOSPAM> wrote in message news:drdk60ptd7ulaumdt41j9a85at1776fmnc@4ax.com...
> On Tue, 30 Mar 2004 19:52:50 -0000, Larry Gagnon
> <lagagnon@fakeuniserve.com> wrote:
>
> >Hello to all. I intend to erect an 80 meter full size dipole and feed
> >it with homebrew open ladder line. Would anyone care to reply as to how
> >to construct ladder line easily and effectively? How does one determine
> >spacing to get X ohms impedance line?
> >
> >Also any ideas on how such line can easily be fed in through a window
> >with a wood frame would be greatly appreciated.
> >
> >Larry Gagnon VE7EA
>
> As an alternative, you can try the website for w7fg. He makes and
> sells open ladder line, as well as dipoles with the ladder line
> attached.
>
> bob
> k5qwg
>
>

5074. Re: Another Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 20:30:09 UTC
From: Thierry <"To answer me in private use http">
Message-ID: <406b2a54$1@news.vo.lu>
Source record: 97444

"Marvin Rosen" <puns@verizon.net> wrote in message
news:BgAac.23494$u_2.10084@nwrddc01.gnilink.net...
> Should one disconnect an outside buried ground
> to their indoor equipment during a storm? I was
> under the impression that static/lightning can still
> get to your equipment thru your gnd system?

Sure ! helas... :-((
Goof to read :
http://www.astrosurf.com/lombry/qsl-lightning-protection.htm

73
Thierry, ON4SKY

>
>
>

5075. Re: US Tower/Yaesu 800 rotor problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 23:00:53 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <m_udnfRrUoMG0PbdRVn-uw@comcast.com>
Source record: 97445

Can you drill new mounting holes, so the plug is facing one of the corners?
If this won't work, you can always modify the plug.

Tam/WB2TT
"Billy" <billy@cmaaccess.com> wrote in message
news:406a50e4$0$32586$2c56edd9@news.cablerocket.com...
> I am having a problem. I am in the process of installing my US Tower tmm
> 541ss. I have the yaesu 800sdx rotor. When I hook the rotor cable to the
> side of the rotor, it sticks out just enough that the tower will not go
all
> the way down. If I let the tower down, it will break the end of the plug
> off. I tried turning the rotor, but this only moved the problem. Does
> anyone know of a solution to this problem. I am sure I am not the only
one
> who has ran into this. I sent US Tower an email asking their advice, but
of
> course I haven't heard anything from them. Does anyone know if Yaesu
> sells/makes a plug at a 90-degree angle or anything? According to the
> paperwork with the tower, they suggest the Yaesu 800 rotor. If you have
any
> suggestions please email me direct. billyatcmaaccess.com. Of course
> replace at with @ to hold down the spam. Thanks in advance for any help.
>
> Best 73...........WR5X
>
>
>
>

5076. Re: Another Lightning Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 23:07:52 UTC
From: SB <chicbears@hotmail.com>
Message-ID: <cblac.9493$JO6.5588@twister01.bloor.is.net.cable.rogers.com>
Source record: 97446

if you get a lot of lightning in your area....invest in a grounding system.

One for power....one for tower....on for antenna line.

I didn't have one for mine and would disconnect the antenna when I didn't use it (long periods of disuse). But I would always ground out the antenna jack before connecting it again as static DOES build up. how much static? who knows....but it's the fool that sits there banging his heading after the static bites back!

"Marvin Rosen" <puns@verizon.net> wrote in message news:BgAac.23494$u_2.10084@nwrddc01.gnilink.net...
> Should one disconnect an outside buried ground
> to their indoor equipment during a storm? I was
> under the impression that static/lightning can still
> get to your equipment thru your gnd system?
>
>
>

5077. Re: Antenna Reactance Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 23:15:40 UTC
From: Cecil.A.Moore@ieee.org
Message-ID: <9001ac09.0403311515.14df578a@posting.google.com>
Source record: 97447

Richard Clark <kb7qhc@comcast.net> wrote:

> <Cecil.A.Moore@ieee.org> wrote:
> > >What's the matter, Richard? Can't you answer the question?
> On Tue, 30 Mar 2004 10:50:43 -0600, Cecil Moore
> <Cecil.A.Moore@ieee.ONEDOT.org> wrote:
> >EZNEC is only an approximation.

Funny, I have exactly this same problem with my dog. The only
response I ever get from her is "Arf", the exact intellectual
equivalent of your responses.
--
73, Cecil, W5DXP

5078. NEW PROGRAM - Input Impedance & SWR of Resonant Antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 23:40:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c4fktg$n3f$1@hercules.btinternet.com>
Source record: 97448

Program models a 1/4-wave vertical and 1/2-wave dipole antenna to
demonstrate how input impedance and SWR behave in the vicinity of resonance.

Transmission line Zo can be varied to match the resonant antenna. Frequency
can then be varied to observe how SWR varies over the band.

Download program R_X_SWR in a few seconds and run immediately.

No increase in price.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

5079. ZL Special

Newsgroup: rec.radio.amateur.antenna
Date: 2004-03-31 23:43:42 UTC
From: Phil <phil.bradway@verizon.net>
Message-ID: <OIIac.2332$Bp2.703@nwrdny02.gnilink.net>
Source record: 97449

Any one have an idea of how broadbanded a "ZL Special" is? We're going to put one together for field day and wonder what 40 meter freq to cut it for. If it's generally narrow band, we'll have to make a choice between the CW and phone portions of the band. If it's wide, maybe we can get away with something in between.

Phil, KB2HQ